

Unit Test - 1 : 2025-26

Class - IX

Time : 35 Mins. HISTORY & CIVICS

M.M. : 20

I. Multiple-Choice Questions :

[6×1=6]

1) Which of the following is a feature of the Great bath.

- a) tank in a courtyard
- b) tank surrounded by corridors
- c) porticos and rooms
- d) All of the above

2) The Bronze statues were made by a special process called _____.

- a) Moulded clay process
- b) Lost wax process
- c) Clay wax process
- d) Lost clay process

3) What was the life expectancy of a person in the Vedic Age?

- a) 25 years
- b) 50 years
- c) 75 years
- d) 100 years

4) Which of the following is not a category of vedic literature

- a) The Aranyas
- b) The Upanishads
- c) The Early Vedic Texts
- d) The Brahmanas attached to each sanhita

5) Which of the following is known as 'The First Testament of Mankind'?

- a) Sama Veda
- b) Rig Veda
- c) Yajur Veda
- d) Atharva Veda

6) (A) Iron began to be used in India during the period of Later Vedic Age.

(B) Iron was harder metal than copper and bronze.

a) (B) contradicts (A)

b) (B) is the reason for (A)

c) (A) is true but (B) is false

d) (A) and (B) are independent of each other

II. Short Answer Questions :

1. State any two causes that led to the decline of the Harappan Civilisation.

[2]

2. Briefly describe granaries at Harappa.

[2]

3. Name four animals depicted on the Pashupati seal.

[2]

4. What is known as Bhagwad Gita?

[2]

5. State the difference in the position of woman between Early Vedic and Later Vedic Age.

[2]

6. Give two features of Painted Grey Ware.

[2]

7. State the role of iron in the development of agriculture during the Vedic Age.

[2]

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Class - IX

Time : 35 Mins.

GEOGRAPHY

M.M. : 20

1. Define any two of the following :

[2×2=4]

i) Earth's axis

~~ii) Ecosystem~~

~~iii) Atmosphere~~

2. Give reasons for the following :

[1×4=4]

i) Shape of the earth is oblate spheroid.

ii) Longitudes are called meridians.

~~iii) Venus is hotter than mercury.~~

~~iv) International Date Line goes zig zag near some islands of Pacific ocean.~~

3. Provide a technical term for the following :

[1×3=3]

~~i) The narrow zone of contact between the three spheres where life exists.~~

~~ii) The uniform time based on the central Meridian of a Time-zone.~~

~~iii) The heat zone that lies between Tropic of cancer and Tropic of Capricorn.~~

4. Answer the following questions in brief :

[2×3=6]

~~i) Mention two important features that make life possible on earth.~~

~~ii) Define Prime Meridian.~~

~~iii) What are the Great Circles? Mention two uses of great Circles.~~

5. With the help of Bedford level experiment diagram prove that earth is spherical.

[3]

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Class - IX

Time : 35 Mins. ENGLISH LANGUAGE M.M. : 20

All questions are compulsory.

A. Write a letter to your friend describing the science project you are working on to be exhibited at the inter school science exhibition. **[10]**

B. Your school is organising an inter school Math Wizard Exam. Write out a notice to be put up in your school informing students about the event and inviting them to participate. **[5]**

C. Write an email to the principal of a neighbouring school requesting him / her to send the names of the students who wish to participate in the Math Wizard Exam. **[5]**

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Class - IX

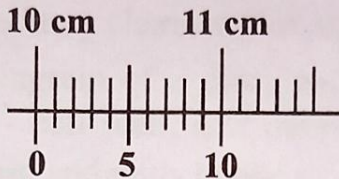
Time : 35 Mins.

PHYSICS

M.M. : 20

Note : Attempt all the questions.

1. When a reading is taken with the help of vernier callipers, the positions of main scale and vernier are as shown in the figure. [2]
- i) Find the reading and
ii) Find the correct reading, if there is an error of + 0.02 cm.



2. Define astronomical unit (A.U), write its value in metres. [2]
3. It takes 0.2 s for a pendulum bob to move from the mean position to one end. What is the time period of the pendulum? [2]
4. Two simple pendulums A and B have equal lengths, but their bobs weigh 50 gm and 100 gm, respectively. What would be the ratio of their time periods? Give reasons for your answer. [2]
5. The size of bacteria is 1μ (Micron). Find the number of bacteria present in 1 m length. [2]
6. Time periods of two pendulum are in ratio of 5.6 : 0.14. Calculate the simplest ratio of lengths. [2]
7. A simple pendulum completes 40 oscillations in a minute. Find its : [2]
- a) Frequency and b) Time period
8. How are the following derived units related to the fundamental units? [3]
- a) Newton b) Watt c) Joule
9. How is the time period of a simple pendulum affected, if at all, in the following situations : [3]
- a) The length is quadrupled.
b) The acceleration due to gravity is reduced to one-fourth.

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Class - IX

BIOLOGY

Time : 35 Mins.

M.M. : 20

1. Name the cell organelle responsible for following functions : [4]

- a) Initiates cell division
- b) Synthesis of protein
- c) Liberates energy
- d) Controls hereditary characters of an organism

2. Draw a neat diagram of a plant cell and label the following parts - cell wall, cell membrane, plastids, nucleus, cytoplasm and mitochondria. [3]

3. Name the type of cell found in the following plant parts. [4]

- a) Storing Starch in potato
- b) Walnut shell and pulp of pear
- c) Soft part of plant such as cortex and pith
- d) Root tip and shoot tip

4. Differentiate between the following by writing one main point : [8]

- a) Apical meristem and cambium
- b) Nucleus and nucleolus
- c) Prokaryotic and eukaryotic cell
- d) Meristematic and permanent tissue

5. Explain why cells are small in size? [1]

Unit Test - 1 : 2025-26

Class - IX

Time : 35 Mins. Computer Application

M.M. : 20

1. What is Polymorphism? [3]

2. What is bytecode in Java programming language ? [3]

3. Describe any four features of Java. [4]

4. Give four features of BlueJ. [4]

5. What are predefined methods? [3]

6. A class is called an object factory. Explain why? [3]

Unit Test - 1 : 2025-26

Class - IX

Time : 35 Mins.

ENGLISH - II

M.M. : 20

- 1. Read the extract given below and answer the questions that follow :**

Wherefore rejoice? What conquest brings he home?

What tributaries follow him to Rome,

To grace in captive bonds his chariot wheels?

You blocks, you stones, you worse than senseless things!

O you hard hearts, you cruel men of Rome,

Knew you not Pompey?

- i) Who speaks these lines? To whom are these words addressed? What type of rejoicing is referred to in the extract? [3]

- ii) Who is "he" referred to in the first line of the extract? What message does the speaker want to convey to his listeners through these questions? [3]

- 2. Read the extracts given below and answer the questions that follow :**

Asleep in granite Aberdeen,

They continue their dreams,

But shall wake soon and hope for letters,

And none will hear the postman's knock

Without a quickening of the heart,

For who can bear to feel himself forgotten?

- i) What were people doing while the Night Mail was travelling through different cities? [3]

- ii) What sort of dreams do these people have? What are these dreams symbolic of? [3]

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[2]

3. Read the extracts given below and answer the questions that follow :

For the last twenty-two years, Bonku Babu had taught geography and Bengali at the Kankurgachhi Village Primary School. Every year, a new batch of students replaced the old one, but old or new, the tradition of teasing poor Bonku Babu continued among all the students.

- i) What in the extract shows that the students were teasing Bonku Babu for a long time? [2]
- ii) What form of teasing was used by his students? [3]
- iii) How did Bonku Babu react to the teasing by the students? [3]

Unit Test - I : 2025-26

Class - IX

Time : 35 Mins. Commercial Applications M.M. : 20

- 1. Name the branches of commerce used to remove these hindrances :** [4]
 - i) Hindrance of time
 - ii) Hindrance of risk
 - iii) Hindrance of persons
 - iv) Hindrance of knowledge
- 2. Answer the following :** [4]
 - i) Explain external trade
 - ii) Write two merits of sole proprietorship as a form of ownership structure.
- 3. Write a difference between :** [6]
 - i) Economic activities and non economic activities.
 - ii) Sole proprietorship and Joint Hindu family business.
 - iii) Private sector enterprise and Public sector enterprise.
- 4. Name the following :** [6]
 - i) Industries which employ complex technology and long production cycles.
 - ii) A form of business that is owned, managed and controlled by an individual.
 - iii) Industries which are engaged in the construction of buildings, roads, bridges, dams, etc.
 - iv) A group of person who join together to achieve some common objectives.
 - v) Industries which are concerned with reproducing and multiplying plants and animals with the purpose of earning profit.
 - vi) Industries that produce goods in huge quantities and employ a large number of workers.

Unit Test - 1 : 2025-26

Class - IX

Time : 35 Mins.

HINDI

M.M. : 20

1. निम्नलिखित प्रश्नों के उत्तर दीजिए :

(12)

- क) गुरु और भगवान को अपने सम्मुख पाकर कबीर के सामने कौन-सी समस्या उत्पन्न हुई? उसका समाधान उन्होंने किस प्रकार निकाला?
- ख) गुरु के गुणों के बखान के लिए कबीर ने किन-किन सामग्रियों की कल्पना की है? वे सब इस कार्य के लिए पर्याप्त क्यों नहीं हैं?
- ग) रसीला का परिचय देते हुए बताइए कि वेतन न बढ़ने के बाद भी रसीला बाबू जगत सिंह की नौकरी क्यों नहीं छोड़ना चाहता था?

2. निर्देशानुसार उत्तर दीजिए :

(8)

क) 'उत्थान' शब्द का विलोम शब्द है :

- अ) प्राचीन ब) पतन

ख) 'उपवन' का पर्यायवाची शब्द है :

- अ) उद्यान-वाटिका ब) पुष्प-फुलवारी

ग) 'उन्नति' का पर्यायवाची शब्द है :

- अ) श्रेष्ठ-उत्थान ब) विकास-उत्थान

घ) 'आवश्यक' का विलोम शब्द है :

- अ) अनावश्यक ब) अनिवार्य

अनेक शब्दों के लिए एक शब्द लिखिए :

इ) 'जिसे जीता न जा सके'

- अ) अग्रज ब) अजेय

ए) 'आशा से अधिक'

- अ) आशातीत ब) अकिंचन

छ) शुद्ध शब्द का चयन कीजिए :

- अ) औद्योगिक ब) ओद्योगिक

ज) शुद्ध शब्द का चयन कीजिए :

- अ) अलोचना ब) आलोचना

Unit Test II : 2025-26

Class - IX

Time : 35 Mins.

HINDI

M.M. : 20

1. निम्नलिखित प्रश्नों के उत्तर दीजिए : (12)

क) 'गुन के गाहक सहस्र नर' से कवि का क्या तात्पर्य है? कवि ने अपनी बात को स्पष्ट करने के लिए किसका उदाहरण प्रस्तुत किया है और क्यों?

ख) 'वर्षा के अनंतर एक-दो दिन में ही पृथ्वी के ऊपर का पानी तो अगोचर हो जाता है परंतु भीतर ही भीतर इसकी आर्द्रता जैसे बहुत दिनों तक बनी रहती है।' कथन का आशय स्पष्ट कीजिए।

ग) श्यामू को पतंग की आवश्यकता क्यों थी? पतंग प्राप्त करने के लिए उसने किस उपाय का सहारा लिया?

2. निर्देशानुसार उत्तर दीजिए : (8)

क) 'चंचल' शब्द का विलोम शब्द है :

अ) स्थिर

ब) चालाक

ख) 'जंगल' का पर्यायवाची शब्द है :

अ) विपिन-कानन

ब) उद्यान-उपवन

ग) 'कटु' का विलोम शब्द है :

अ) मधुर

ब) कठोर

घ) 'घोड़ा' का पर्यायवाची शब्द है :

अ) अश्व-घोटक

ब) गौ-धेनु

ङ) 'आँखों का तारा' मुहावरे का अर्थ है :

अ) बहुत प्यारा

ब) अत्यंत सुंदर

च) 'इतिश्री करना' मुहावरे का अर्थ है :

अ) आरंभ करना

ब) समाप्त करना

छ) निर्देशानुसार उचित वाक्य का चयन कीजिए :

उसका कार्य प्रशंसा के योग्य है।

(रेखांकित शब्दों की जगह एक शब्द का प्रयोग कीजिए)

अ) उसका कार्य प्रशंसनीय है।

ब) उसका कार्य विश्वसनीय है।

ज) निर्देशानुसार उचित वाक्य का चयन कीजिए :

भविष्य में क्या हो जाए, यह अनिश्चित है।

(‘नहीं’ का प्रयोग कीजिए, परंतु वाक्य का अर्थ न बदले)

अ) भविष्य में क्या हो जाए, यह अनिश्चित नहीं है।

ब) भविष्य में क्या हो जाए, यह निश्चित नहीं है।

Unit Test II : 2025-26

Class - IX

Time : 35 Mins

HISTORY & CIVICS

M.M. : 20

Multiple - Choice Questions

1. The Constituent Assembly of India was adopted and passed on _____. [1]
a) 26th January 1950 b) 26th January 1949
c) 26th November 1949 d) 26th November 1950
2. A person of Indian Origin can enjoy all privileges of an Indian citizen except : [1]
a) Right to vote b) Right to protest
c) Right to enter the country
d) Right to freedom
3. Complete the analogy : [1]
Right to Equality : Article 14–18 _____ : Article 19–22
a) Right Against Exploitation
b) Right to Constitutional Remedies
c) Right to Freedom of Religion
d) Right to Freedom
4. If a male and female is selected for the same post but gets less salary, which of her rights is discriminated? [1]
a) The Right to Freedom
b) The Right against Exploitation
c) The Right to Education
d) The right to equality
5. Article 21A has been inserted to ensure which Fundamental Right? [1]
a) Right to equality
b) Right to Education
c) Right to Childhood
d) Right Against Exploitation

[2]

6. The Constitution of India Guarantees _____ basic freedom to its citizens. [1]

a) eight

b) six

c) four

d) seven

Short Answer Questions :

7. What is meant by the term 'Single Citizenship'? [2]

8. What is meant by the term Constitution? [2]

Structured Questions :

9. With reference to the Indian Constitution and Fundamental Rights answer the following :

a) What is the significance of Lahore Session? [3]

b) State any three freedoms given under Article 19. [3]

c) Give any four Fundamental Duties. [4]

Unit Test II : 2025-26

Class - IX

Time : 35 Mins ENGLISH LANGUAGE

M.M. : 20

All questions are compulsory.

1. Your school is organizing an Inter-School Competition for patriotic songs to be sung by groups of students on the occasion of Independence Day. Write a notice for your school notice board inviting names of all the interested student groups so that the team to represent the school may be finalized. [5]

2. Fill in each of the numbered blanks with the correct form of the word given in copy the passage but write in correct serial order the word or phrase appropriate to the blank space : [5]

Example

The car (O) _____ (slow) down at the curve.

Answer : (O) slowed

Gandhiji (1) _____ (be) a prolific writer who (2) _____ (spend) several hours in a day writing. He (3) _____ (write) for the journals that he then (4) _____ (edit). He (5) _____ (use) the print medium for spreading his message.

3. Fill in the blanks with appropriate word : [5]

a) Most people left the party _____ 2 am.

b) The party went on _____ 4 am.

c) I have taken a resolution not to drink _____ the end of year.

d) I will return your money _____ the end of the year.

e) There was a security alert _____ the airport.

4. Join the following sentences to make one complete sentence without using and, but or so. Choose the correct option : [5]

i) The lawyer defended his client very well. He lost the case.

a) Though the lawyer defended his client very well, yet he lost the case.

b) Although the lawyer defended his client very well but he lost the case.

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- c) Though the lawyer defended his client very well, he lost the case.
- d) None of the above
- ii) The bus left at six o'clock. We arrived at the bus stop at five past six.
- a) The bus had left after we arrived at the bus stop.
- b) The bus had come after we arrived at the bus stop.
- c) The bus had left before we arrived at the bus stop.
- d) The bus had come before we arrived at the bus stop.
- iii) The beggar was crossing the road. The accident took place then.
- a) The accident took place and the beggar was crossing the road.
- b) The beggar was crossing the road yet the accident took place.
- c) Although the accident took place, the beggar was crossing the road.
- d) The accident took place while the beggar was crossing the road.
- iv) She studied German for three years. Then, she moved to Berlin.
- a) After she had studied German for three years, she moved to Berlin.
- b) After she moved to Berlin, she studied German for three years.
- c) After having studied German for three years, she moved to Berlin.
- d) Both (a) and (c)
- v) Mona has won the first prize. I am pleased to announce it.
- a) I am pleased to announce Mona won the first prize
- b) I am pleased to announce that Mona has won the first prize.
- c) I am pleased to announce Mona winning the first prize.
- d) I am pleased announcing that Mona has won the first prize.

Unit Test II : 2025-26**Class - IX****Time : 35 Mins****BIOLOGY****M.M. : 20**

- 1. Name the following :** [4]
 - a) Pollination by birds.
 - b) Flower having free stamens.
 - c) Leaf like structure having a flower in its axil.
 - d) Male inflorescence in maize plant.

- 2. Define the following terms :** [4]
 - a) Dichogamy
 - b) Inflorescence
 - c) Neuter flower
 - d) Triple Fusion

- 3. Observe the relationship between first two words and based on this fill the rest of the blanks :** [4]
 - a) Sepals - Calyx : Petals - _____
 - b) Stamens _____
 - c) Pistil _____
 - d) Green petals - Sepaloid : Colourful sepals _____.

- 4. Differentiate by writing one main point :** [6]
 - a) Autogamy and Allogamy
 - b) Entomophilous flower and Anemophilous flower
 - c) Staminate and pistillate flower.

- 5. Draw a neat labelled diagram of a Pollen grain.** [2]

Unit Test II : 2025-26

Class - IX

Time : 35 Mins

GEOGRAPHY

M.M. : 20

1. Explain why Exogenic forces are also called destructive forces. [2]
2. Define any Three in brief : [3]
 - a) Gutenberg discontinuity
 - b) Magma chamber
 - c) Asthenosphere
 - d) Fold mountains
3. Differentiate between Intermontane Plateaus and Volcanic Plateaus, write two-two points of each. [2]
4. Give two advantages of Landforms. [2]
5. Draw a diagram to show the layers of the Earth. [3]
6. Define the following terms : [4]
 - a) Plate Tectonics
 - b) Nife
7. On an outline map of the World, Mark the following : [4]
 - a) Seas --- Black sea and Caspian sea
 - b) Gulfs --- Gulf of Mexico and Persian Gulf

Unit Test II : 2025-26

Class - IX

Time : 35 Mins. Computer Application

M.M. : 20

1. If $a = 8$; find the value of $a--++a+a++ +4$;
2. Rewrite the following using ternary Operator

If($\text{basic} > 100000$)

{

Tax=0;

else

Tax=1000;

}

3. Write a program in Java to find the sum of two numbers. Display the output.
4. What is the difference between / and % operators?
5. What is the difference between the Scanner class element next () and next line()?

IX - Vedant Agrawal

Unit Test II : 2025-26

Class - IX (9257)

PHYSICS

Time : 35 Mins

M.M. : 20

Note : Attempt all the questions.

1. Derive following equations for a uniformly accelerated motion : [4]
 - i) $v = u + at$
 - ii) $s = ut + \frac{1}{2} at^2$
2. A particle initially at rest, moves with an acceleration $5m/s^2$ for 5 second. Find the distance travelled in (a) 4sec. (b) 5sec. [4]
3. A cricket ball of mass 100g moving at a speed of 30 m/s is brought to rest by a player in 0.03 second. Find the average force applied by the player. [4]
4. A car travels first 30 km with a uniform speed of 60km/h and then next 30 km with a uniform speed of 40 km/h. Calculate : [4]
 - i) The total time of journey.
 - ii) The average speed of the car.
5. The separation between two masses is reduced to half. How is the magnitude of gravitational force between them affected? [2]
6. Explain the following : [2]
 - a) It is advantageous to run before taking a long jump.
 - b) People often shake branches of a tree for getting down the fruits.

□□□

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Unit Test II : 2025-26

Class - IX

Time : 35 Mins

CHEMISTRY

M.M. : 20

NOTE : Attempt all the questions.

1. Answer the following :

[4]

- a) The value of standard pressure in mm of Hg.
- b) A gas evolved when potassium Nitrate is heated.
- c) A substance that gives reddish brown precipitate during a reaction between an iron salt and alkali.
- d) The absolute temperature value that corresponds to 35 degree Celsius.

2. Fill in the blanks: do not copy the question, write the correct answers only :

[4]

- a) By increasing the temperature of an enclosed gas at constant ____ (i) ____, the volume of the gas ____ (ii) ____ This is given by Charle's law.
- b) A standard value of temperature and pressure is chosen to which gas volumes are referred because ____ (iii) ____ and the standard temperature in Kelvin is ____ (iv) ____.

3. Write a balance chemical equation for each of the following :

[4]

- a) Action of heat on copper carbonate.
- b) Action of dilute sulphuric acid on CuO.
- c) A direct combination reaction between Phosphorus and Oxygen.
- d) When vapours of ammonia combines with HCL gas.

4. Numericals :

[4]

- a) 120 cm³ of a gas is taken at 27.3 K. The temperature is then raised to 0 degree Celsius. What is the new volume of the gas? The pressure is constant.
- b) A gas occupies 800 cm³ under 760mm Hg pressure. Find under what pressure the gas will occupy 380 cm³. The temperature remaining constant.

[2]

5. Give a balanced equation for each of the following : [4]

- a) A Direct combination reaction between ~~phosphorus~~ ^{Sodium} and a Neutral gas.
- b) A decomposition reaction of salt which leaves behind a silvery metal.
- c) A Synthesis reaction for the formation of salt from a trivalent Metal and a coloured gas
- d) Formation of insoluble Lead salt which is white precipitate from a soluble Lead salt.

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Unit Test II : 2025-26

Class - IX - C

Time : 35 Mins

ENGLISH - II

M.M. : 20

1. Read the extract given below and answer the questions that follow :

Cassius :

When went there by an age, since the great flood,
But it was fam'd with more than with one man?

When could they say, till now, that talk'd of Rome,

That her wide walls encompass'd but one man?

Now is it Rome indeed, and room enough,

When there is in it but one only man.

O, you and I have heard our fathers say,

There was a Brutus once that would have brook'd

Th' eternal devil to keep his state in Rome

As easily as a king.

i) What is referred to as "the great flood"? Why is this expression used in the text? \rightarrow 13 line [2]

ii) Who is referred to as "one only man"? Why is he so referred to? \rightarrow 13 line [3]

iii) What arguments does Cassius give (just before the extract) to show Caesar is not superior to Brutus? [3] 11 line

2. Read the extracts given below and answer the questions that follow :

The doctor raised the dead woman's left hand.

The usual story, he said. 'I see that she has no ring on her finger. She wasn't married. Good night!'

He went home to his dinner. The old woman sat down on a chair in front of the fire and began to dress the baby. She dressed him in the very old clothes used for babies who were born in the workhouse. The child was an orphan, born into a world which had no love or pity for him.

[2]

i) When the doctor raised the young woman's hand, what did he notice? What does this indicate about the young woman? *9 line* [3]

ii) What did the old woman do after the doctor went home? What does this say about life in a workhouse? *8 line* [3]

3. Read the extracts given below and answer the questions that follow :

But you saw him at Dumfries, where he speaks to the police
If there's anything they ought to know about :

When you get to Gallowgate there you do not have to wait-
For Skimbleshanks will help you to get out!

He gives you a wave of his long brown tail

Which says : "I'll see you again!

You'll meet without fail on the Midnight Mail

The Cat of the Railway Train."

i) When do you think the train reaches its destination?
Name the first and last stations of the Midnight

Mail. *5 line* [3]

ii) Why do the passengers not have to wait to get down
at Gallowgate? *8 or 7 line* [3]

□□□

Unit Test II : 2025-26

Class - IX

Time : 35 Mins. Commercial Application

M.M. : 20

1. Choose the correct answer :

[5]

i) Statement I : Multinational company has business operations in several countries.

Statement II : MNCs are very large in size.

- a) Only I is correct
- b) Only II is correct
- c) Both I and II are correct

ii) Statement I : The liability of every partner is limited.

Statement II : An LLP is a body corporate having a separate legal entity and perpetual succession.

- a) Only I is correct
- b) Only II is correct
- c) Both I and II are wrong

iii) Which of the following is not a merit of partnership?

- a) Ease of formation
- b) Scope for expansion
- c) Uncertain life

iv) The features of a joint stock company are

- a) Separate legal existence
- b) Perpetual succession
- c) Both

v) It is a partnership form for a specified time period or to achieve a specified objective.

- a) Partnership at will
- b) Particular partnership
- c) Limited liability partnership

2. Differentiate between a Company and A Partnership.

[5]

3. Answer in brief :

[10]

i) What is the chartered company?

ii) Write two disadvantage of partnership.

iii) Give two features of a Joint Stock Company.

iv) Is the registration of partnership compulsory?

v) What is Partnership Deed?

Half Yearly Examination : 2025-26

Class - IX

Time : 1 Hr.

MORAL SCIENCE

M.M. : 50

Note : *You will not be allowed to write during the first fifteen minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. The intended marks are given in the bracket [].*

1. Answer the following questions : [30]

- a) 'Peer pressure is called a hallmark of adolescence'. Explain.
- b) What is the consequence of procrastinating your studies?
- c) List the difference between needs and wants.
- d) List the different kinds of individual differences.
- e) List two facts that reveal gender inequality.
- f) Comment on the significance of body language.

2. Write 'True' or 'False' : [10]

- a) Peer pressure is commonly associated with adolescence.
- b) You should set goal for each session of your study.
- c) Devote time in planning things beforehand.
- d) Change in environment does not cause individual differences.
- e) Open palms suggest dishonesty and insincerity.
- f) Life is meant to be lived, not survived
- g) People do not become anxious, situations do.
- h) You should study sporadically and whimsically.
- i) People sometimes use the terms 'wants' and 'needs' interchangeably.
- j) Differences in attitude are psyche-related.

3. Write the 'Preamble' of the Indian Constitution. [10]

Time : 2 hrs.

ENGLISH-II

M.M. : 80

Note • You will not be allowed to write during the first fifteen minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers.

- Section A is compulsory- All question in section A must be answered .
- You must attempt **one** question from each of the Sections B, C and D and one other question from any section of your choice.
- The intended marks for questions or parts of questions are given in brackets [].

SECTION-A

(Attempt all questions from this Section.)

1. Read the following questions and choose the most appropriate response from the choices given below (Please do not copy the question- simply write out in correct serial order the appropriate word or phrase.) [16]

- i) Why do the tribunes rip down the banners celebrating Caesar's arrival?
- His name was spelled incorrectly.
 - To weaken support for him.
 - They were only to be hung in the palace, not on the streets.
 - Caesar had expressly forbidden decorations.
- ii) Pompey was
- Julius Caesar's general.
 - A great Roman general and statesman
 - Defeated by Caesar in Egypt.
 - An officer in Julius Caesar's army.
- iii) Caesar is compared to a
- lion
 - falcon
 - raven
 - dove
- iv) Why did Flavius ask the commoners to shed tears of remorse?

- a) For the dishonour shown to Pompey
b) For the rise of a dictator
c) For the loss of their liberty
d) For making Caesar too powerful
- v) Cassius: Alas! It cried, 'Give me some drink, Titinius', as a sick girl. Who is Titinius?
a) A servant to Julius Caesar.
b) A friend of Julius Caesar.
c) A friend of Cassius.
d) A Roman statesman
- vi) What was the last cry of the people for?
a) Caesar's greatness
b) Caesar's refusal of the crown
c) Caesar's fall
d) Caesar's victory
- vii) Select the option that shows the correct relationship between statement (1) and statement (2) from the poem "The Night Mail".
(1) The train is never late.
(2) The train continues to move on steadily through various stations.
a) (1) is the cause for (2)
b) (1) is an example of (2)
c) (1) is independent of (2)
d) (1) is a contradiction of (2)
- viii) Why do the sheep dogs continue to sleep on the arrival of the train?
a) Because they can attack it.
b) Because they can not change her course.
c) Because they can bite it.
d) Because they can get into it.
- ix) Name the poet of the poem 'Railway Cat'.
a) T.S. Eliot b) Thomas Hood
c) W.H. Auden d) None of the above

- x) Select the correct option in the context of these two statements.

Statement 1: As a child the poet thought the fir trees were close to the sky.

Statement 2: As an adult he laughed at his childhood ignorance.

- a) Statement 1 is true but statement 2 is false.
 b) Statement 1 is false but statement 2 is true.
 c) Both the statements are true.
 d) Both the statements are false.
- xi) The laburnum was planted _____.

- a) When the poet's brother was born
 b) On his birthday
 c) When he was 10 years old
 d) When the poet was born

- xii) What was Ramkanai's idea about 'Saturday'?

- a) Saturday is a week end.
 b) Saturday to be spent at home.
 c) Saturday is auspicious for ghosts.
 d) Saturday is meant for picnic.

- xiii) Who said the following statement?

"Let's not talk of Satellites. After all it's a machine, going around the earth, they say."

- a) Bonku Babu b) Ram Kanai
 c) Nidhi Babu d) Chandi Babu

- xiv) What is Mr. Sowerberry's profession?

- a) chef b) coffin maker
 c) warden d) gateman

- xv) Choose the option that lists the sequence of events in the correct order.

1. Hughie gives some money to the old beggar in his friend's studio.
2. Trevor is giving the finishing touches to a wonderful picture.

3. Hughie comes to know that the old beggar was in fact Baron Hausberg a millionaire.
4. Hughie thought that the old beggar looked miserable and his clothes were worn out.
- a) 3, 2, 4, 1 b) 2, 4, 1, 3
c) 1, 3, 4, 2 d) 3, 2, 1, 4
- xvi) According to Trevor where is an artist's heart?
- a) In his chest b) In his stomach
c) In his work d) In his mind

SECTION-B (DRAMA)

[Shakespeare: Julius Caesar]

(Answer one or more questions from this Section.)

2. Read the extract given below and answer the questions that follow:

Brutus

Cassius, Be not deceived: if I have veil'd my look,
I turn the trouble of my countenance
Merely upon myself. Vexed I am
Of late with passions of some difference,
Conceptions only proper to myself.

- i) Where are Brutus and Cassius at this time?
What is the occasion? [3]
- ii) What has Cassius told Brutus regarding the latter's attitude towards him? [3]
- iii) What reason does Brutus give to Cassius for not going to the games? With whom does Brutus compare himself to? [3]
- iv) What does Brutus tell Cassius regarding his conflicting thoughts and emotions? What effects are they having on Brutus regarding his attitude towards others? [3]
- v) What is Cassius' motive in showing his friendship with Brutus? How is Cassius shown to be a schemer? [4]

3. Read the extract given below and answer the questions that follow:

Cassius

And why should Caesar be a tyrant, then?

Poor man! I know he would not be a wolf

But that he sees the Romans are but sheep

He were no lion, were not Romans hinds.

Those that with haste will make a mighty fire

Begin it with weak straws; what trash is Rome,

What rubbish, and what offal, when it serves

For the base matter to illuminate

So vile a thing as Caesar!

- i) Who is referred to as a "poor man"? On what condition he would not have been a wolf or a lion? [3]
- ii) Explain how the sentence "Those that... weak straws" refers to Caesar. In what way is Caesar "vile" in the eyes of Cassius? [3]
- iii) Does Cassius blame Caesar or Rome? Give three reasons given by him for the greatness of Caesar at this time. [3]
- iv) What does Casca extend to Cassius as a sign of fellowship? What does he say he is willing to do? [3]
- v) What appointment must Cassius and Casca keep later that night? Where will these friends meet? What will be the purpose of their meeting? [4]

SECTION-C (PROSE)

[Treasure Chest]

(Answer one or more questions from this Section.)

Read the extract given below and answer the questions that follow:

"Consider his looks, not to mention his brains...yes, Bunkum would be the ideal specimen!"

"Right. Suitable for keeping in a museum. Or a zoo,"

Ramkanai chipped in.

Bonku.Babu did not reply, but wondered silently: if anyone were to actually look for a specimen, weren't the others just as suitable? Look at Sripati Babu. His chin was so much like a camel's. And that Bhairav Chakravarty, his eyes were like the eyes of a tortoise. Nidhu Babu looked like a rat, Ramkanai like a goat, and Chandi Babu like a flitter mouse. If a zoo really had to be filled up...!

- i) Why did he call Bonku Babu an 'ideal specimen' and for whom? [3]
- ii) Why did he call him as Bonkum? What does it show about his perception of Bonku Babu? [3]
- iii) Name three of his associates whom Bonku Babu says could be other specimens. What reason does he give for his choice? [3]
- iv) Why did Bonku Babu wonder silently about his associates? What would have happened if he had spoken? [3]
- v) How did Bonku Babu reply each of his associates mentioned in the extract at the end of the story? [4]

5. Read the extract given below and answer the questions that follow:

To make matters worse, he was in love. The girl he loved was Laura Merton, the daughter of a retired Colonel who had lost his temper and his digestion in India, and had never found either of them again. Laura adored him, and he was ready to kiss her shoe-strings. They were the handsomest couple in London, and had not a penny-piece between them. The Colonel was very fond of Hughie, but could not hear of any engagement.

- i) How did 'he' in the first line look? Describe his appearance. [3]
- ii) Which two things did Colonel lose in India? [3]
- iii) What was the hindrance in Hughie's engagement with Laura? [3]

iv) The Colonel was fond of Hughie. Still he did not allow him to marry his daughter. Why? [3]

v) Which sentence in the passage shows that 'he' was madly in love with Laura? Explain. [4]

SECTION-D [POETRY]

[Treasure Chest]

(Answer one or more questions from this Section.)

6. Read the extract given below and answer the questions that follow:

Asleep in granite Aberdeen,
They continue their dreams,
But shall wake soon and hope for letters,
And none will hear the postman's knock
Without a quickening of the heart,
For who can bear to feel himself forgotten?"

i) What were people doing while the Night Mail was travelling through different cities? [3]

ii) What sort of dreams do these people have?
What are these dreams symbolic of? [3]

iii) What would happen to their heartbeat on hearing the postman's knock? Why? [3]

iv) If the postman does not bring them letters, what would be the feelings of the people? [3]

v) Explain how does the Night Mail help to promote human relations? [4]

7. Read the extract given below and answer the questions that follow:

But you saw him at Dumfries, where he speaks to the police
If there's anything they ought to know about:

When you get to Gallowgate there you do not have to wait—
For Skimbleshanks will help you to get out!

He gives you a wave of his long brown tail

Which says: "I'll see you again!"

You'll meet without fail on the Midnight Mail

The Cat of the Railway Train."

- i) What does Skimble do at Dumfries station? Why? [3]
- ii) When do you think the train reaches its destination?
Name the first and last stations of the Midnight Mail. [3]
- iii) Why do the passengers not have to wait to get down at Gallowgate? [3]
- iv) How does Skimble bid goodbye to the passengers?
What does the wave of this long brown tail mean? [3]
- v) Once the passengers fall asleep what does the railway cat do? [4]



Time : 2 Hrs.

GEOGRAPHY

M.M. : 80

Note : You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. PART-I is compulsory. All the questions from Part-I are to be attempted. A total of five questions are to be attempted from Part-II.

Part-I (Compulsory)

[30]

1.
 - a) Write two characteristics ~~distinguish~~ earth as a unique planet? [2]
 - b) Explain the terms perihelion and aphelion. [2]
 - c) What is lithosphere? [2]
 - d) Give any two destructive effects of earthquake? [2]
 - e) Define : spring and neap tides. [2]
2. On the outline map of world mark the following : [10]
 - a) Shade and name Arctic Ocean [1]
 - b) Shade and name Black Sea [1]
 - c) Shade and name Mediterranean Sea [1]
 - d) Mark and label River Mississippi [1]
 - e) Mark and label River Paraguay [1]
 - f) Mark and label River Niger [1]
 - g) Shade and label Hudson Bay [1]
 - h) Mark and label Bering Strait [1]
 - i) Shade and label Gulf of Carpentaria [1]
 - j) Shade and label Gulf of Mexico [1]
3. Choose the correct option : [10]
 - i) Assertion (A) : The earth is the only planet known to support life. [1]
Reason (R) : The earth is a terrestrial planet like Mercury and Venus.
 - a) Both A and R are true and R is correct explanation of A.
 - b) Both A and R are true but R is not the correct explanation of A.
 - c) A is true but R is false.
 - d) A is false but R is true.

ii) Which of the following is true about lines of longitude? [1]

- a) They run parallel to the Prime Meridian.
- b) They are full circles.
- c) They are 360 lines at 1° interval.
- d) All of the above.

iii) An apparent outward force that acts on rotating objects : [1]

- a) Centrifugal force
- b) Sunset effect
- c) Coriolis effect
- d) Rotational effect

iv) Which of the following is incorrect about the inner core? [1]

- a) It is in a molten state.
- b) It is a region of high density.
- c) It is a region of high pressure.
- d) It is composed of iron and nickel.

v) Which of the following is / are correctly matched? [1]

- a) Young Fold Mountains : Himalayas, Alps
- b) Old Fold Mountains : Urals, Aravalli
- c) Residual Mountains : Nilgiri, Rajmahal Hills
- d) All of the above

vi) The alteration of the composition or structure of a rock by heat, pressure or other natural agency : [1]

- a) Hypobysal
- b) Metamorphism
- c) Compaction
- d) Cementation

vii) Which of the following measures the power of an earthquake on the scale of 1 to 9? [1]

- a) Seismograph
- b) Richter scale
- c) Mercalli Scale
- d) Thermometer

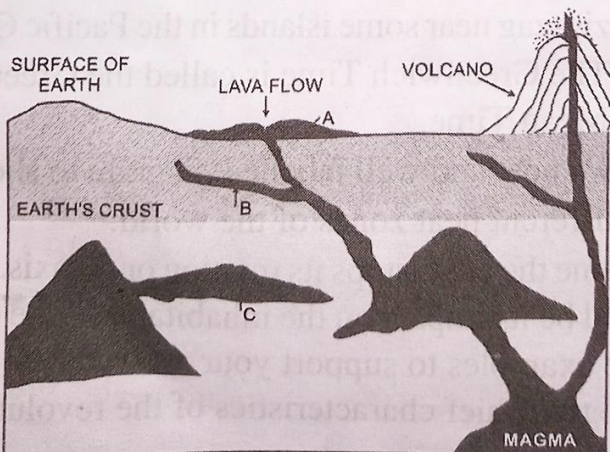
viii) Tension and splitting of rocks is known as _____. [1]

- a) Hydration
- b) Weathering
- c) Block disintegration
- d) Solution

ix) The streams or small rivers which join the main river are called : [1]

- a) Transporteries
- b) Tributaries
- c) Distributaries
- d) Meanders

- c) Define / state the following : [3]
 i) Rotation
 ii) Equinox
 iii) Solstice
- d) Draw a neat and well labelled diagram to show inclination of the earth on its axis. [3]
7. a) What is the composition of the earth's crust? [2]
 b) Give two chief characteristics of fold mountains. [2]
 c) Distinguish between : [3]
 i) Structural plains and Depositional plains
 ii) Intermontane Plateau and Volcanic Plateau.
 iii) Moho Discontinuity and Gutenberg Discontinuity.
- d) Draw a neat and well labelled diagram to show the formation of residual mountain. [3]
8. a) Classify the igneous rocks on the basis of chemical composition. [2]
 b) Fossil fuels are associated with which rocks? Name the process by which they are formed. [2]
 c) Name / state : [3]
 i) They are aggregate of minerals.
 ii) The process that turns loose sediments into rocks.
 iii) The alteration of the composition or structure of a rocks by heat, pressure or other natural agency.
- d) Study the picture. Identify the rocks in case of A, B and C. Give reasons to support your answer. [3]



9. a) Give one example each of an active volcano and an extinct volcano. [2]
- b) What are seismic focus and epicentre? [2]
- c) Give geographical reason for the following : [3]
- i) Most of the earthquakes occur on account of plate movement.
 - ii) Volcanic activities and earthquakes occur in the same belt.
 - iii) Hot springs have medical properties to cure diseases.
- d) Draw a neat and well labelled diagram of structure of a volcano. [3]
10. a) Weathering is natural process but human activities can speed it up. Do you agree with this statement? Give two reasons to support your answer. [2]
- b) What is known as exfoliation? Name the processes involved in it. [2]
- c) Give geographical reason for the following : [3]
- i) Biological weathering is also known as organic weathering.
 - ii) Vegetation prevents disintegration of rocks.
 - iii) Chemical and biological weathering is negligible in polar climate.
- d) Draw a neat and well labelled diagram to show the process of physical weathering. [3]
11. a) Name the factors which affect the work of river : [2]
- b) How are meanders formed? Give one example of a meander. [2]
- c) Give geographical reason for the following : [3]
- i) Erosion is the dominant activity of a river in its upper course.
 - ii) The effects of wind erosion are more pronounced in desert areas.
 - iii) Migratory sand dunes are uncertain and dangerous.
- d) Draw a neat and well labelled diagram of Barchans. [3]

12. a) State any two factors responsible for causing the ocean currents. [2]
- b) How are tides formed? [2]
- c) Describe one effect of each of the following three ocean currents. [3]
- i) Labrador current of the Atlantic ocean.
 - ii) The kuroshio current.
 - iii) Oyashio Current of the pacific ocean.
- d) Draw a neat and well labelled diagram of high tides. [3]

Note : You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. Answer all questions in Section-A and from Section-B answer any four questions.

Section-A

[40 Marks]

(Attempt all the questions from the Section-A)

1. Choose the correct answers to the questions from the given options :

[15]

(Do not copy the questions write the correct answer only)

i) The cell organelle that helps in the respiration of the cell is :

- a) Mitochondria b) Lysosome
- c) Ribosome d) Centrosome

ii) Exine and Intine are the parts of :

- a) Embryo sac b) Pollen grain
- c) Stigma d) Seed

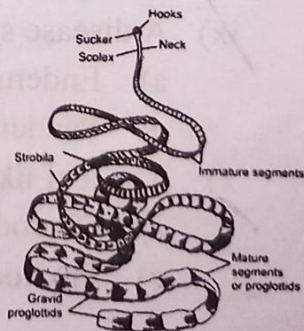
iii) **Assertion (A) :** Non infectious disease cannot be spread from patient to another person.

Reason (R) : Non infectious disease are caused by germs.

- a) A is true R is false.
- b) A is false and R is true
- c) Both A and R are true
- d) Both A and R are false

iv) The diagram given below is that of a tapeworm. The disease caused by it is _____

- a) Sleeping sickness
- b) Filariasis
- c) Taeniasis
- d) Ascariasis



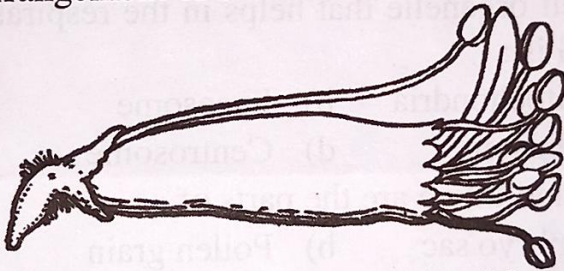
v) Tendon and ligaments are the example of :

- a) Fibrous connective tissue
- b) Cartilage
- c) Muscular tissue
- d) Adipose tissue

vi) All life starts as :

- a) An egg
- b) A single cell
- c) A gene
- d) Chromosome

vii) Shivam dissected a flower of a sweet pea and removed all the petals. He observed the reproductive parts of the flower both male and female arrange in a specific manner. What kind of arrangement of stamens are shown.



- a) Diadelphous
- b) Monoadelphous
- c) Pistilate
- d) Polyadelphous

viii) **Assertion (A)** : Ribosomes are considered as delivery system of the cell.

Reason (R) : delivery system is concerned with the secretion of the cell including enzyme, hormones etc.

- a) A is true and R is false.
- b) A is false and R is true
- c) Both A and R are true.
- d) Both A and R false

ix) A disease spread worldwide is known as :

- a) Endemic
- b) Epidemic
- c) Pandemic
- d) Sporadic

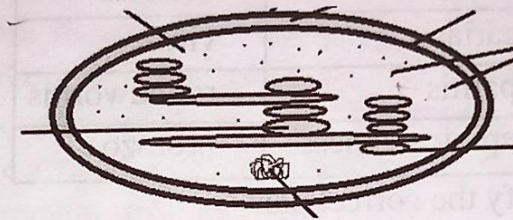
x) The leaf like structures of bryophytes is termed as :

- a) Cladode
- b) Phylloclade
- c) Phyllode
- d) Phyllids

2. i) Name the following : [5]

- a) The process of flavouring tea by certain bacteria.
- b) Arrangement of flowers on a stem.
- c) The tissue which conducts water in a plant.
- d) A nitrogen fixing bacteria.
- e) Pollination of flowers by insects.

ii) Given below fill in the blanks related to plastids fill it : [5]



Plastids are found only in A cells. Depending upon the colour they impart, Plastids are classified as B, chromoplast and C. Cells of a potato have lots of D in them. The one showed in figure have a green coloured pigment called E.

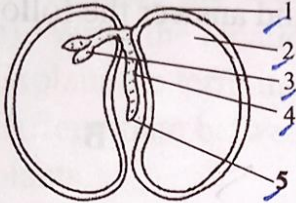
iii) Choose the odd one out from the following terms. Mention the category to which the remaining three belongs : [5]

- a) Carpel, sepals, stamen, bract.
- b) Sieve plate, companion cell, phloem fiber, xylem.
- c) Hydra, jelly fish, corals, earthworm.
- d) Seed, cotyledons, embryo, allogamy.
- e) Beans, rice, wheat, maize

iv) Ria had high fever, went to a doctor to know the reason. After blood test doctor said that she is having fever due to the bite of mosquitoes. She was filled with questions to solve this. Help her by giving the answers. [5]

- a) Name the mosquito and the disease caused by it.
- b) What are the four stages in the life cycle of a mosquitoes?

- c) Name the fish which selectively devours mosquito larvae.
- d) Write two control steps to destroy mosquitoes.
- e) What is communicable disease?
- v) Given below is a structure of a bean seed match the structure marked (1) to (5) with their current functions :

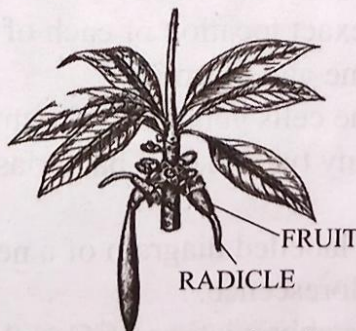
Bean seed	Function
	1. Develops into shoot
	2. It protects the delicate part of the seed from injury
	3. Stores food
	4. Forms the lower part of the stem
	5. It forms the root

Section-B

[40 Marks]

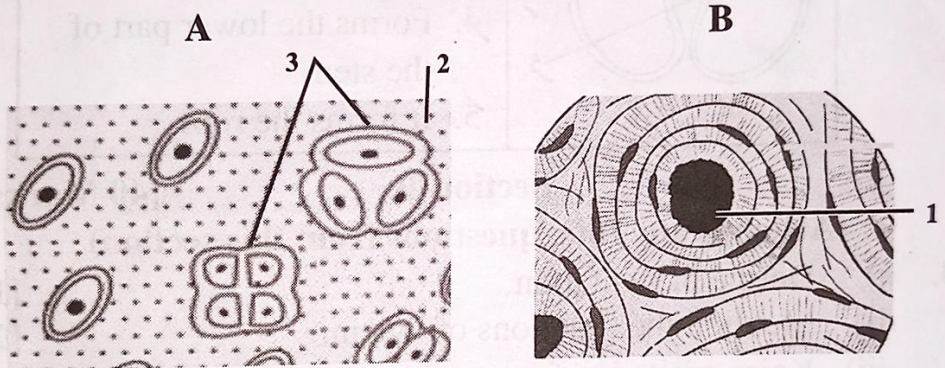
(Attempt any four questions from this section)

3. i) Define placentation. [1]
- ii) Mention the functions of xylem. [2]
- iii) Kaira visited a forest with the Marshy land she observed that in some of the plants the seed germinated inside the fruit while still being attached to the parent plant. [2]



- a) What kind of germination is shown above in the figure?
- b) Give two example of the plants which germinate by this kind of germination.

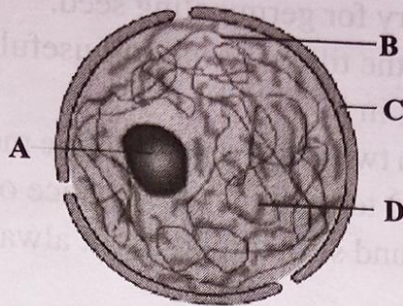
- iv) Differentiate between voluntary and involuntary muscles. [2]
- v) Draw neat labelled diagram of mature pollen grain. [3]
4. i) Explain the term tissue. [1]
- ii) Differentiate between respiration and combustion. [2]
- iii) Name the lowest and the highest taxonomic category. [2]
- iv) Explain why respiration is said to be reverse of photosynthesis? [2]
- v) Study the given diagram and answer the following questions. [3]



- a) Identify the tissues A and B
- b) Label the parts 1, 2 and 3 of A and B
- c) Mention the function of A
5. i) Define double fertilisation. [1]
- ii) Write the exact location of each of the following chromosome and plasmid. [2]
- iii) Why are the cells generally of a small size? [2]
- iv) Describe any two roles of bacteria in the food industry. [2]
- v) Draw neat labelled diagram of a nerve cell. [3]
6. i) Define inflorescence. [1]
- ii) Expand the abbreviation BCG and HIV. [2]
- iii) Write difference between Epigeal and Hypogeal germination. [2]
- iv) What is cell theory? Who propounded it and when? [2]

- v) Study the given diagram and answer the question that follows :

[3]

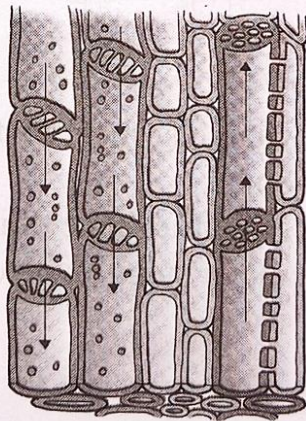


- a) Identify the structure and label all the parts.
b) Write the location and function of the structure.

7. i) Explain the term incubation period. [1]

ii) Differentiate between monoecious and dioecious plants. [2]

iii) Sandesh observed a slide containing the longitudinal section of a plant tissue found in all parts of the plant like root stem and leaves different types of cells are visible in the tissue as shown in the diagram below. [2]



- a) Identify and name the kind of tissue.
b) Distinguish between simple permanent tissue and complex permanent tissue.
iv) Mention two contrivance in flowers which favour cross pollination. [2]

- v) Draw a neat labelled diagram showing the experimental set up to demonstrate the conditions necessary for germinating seed. [3]
8. i) How is the tilling of the soil useful for the crops growing in it? [1]
- ii) Mention two important primitive measures advised by WHO to minimize the chance of covid-19. [2]
- iii) Tinned and sealed food is not always safe to eat. Why? [2]
- iv) Write the balance chemical equation for respiration and photosynthesis. [2]
- v) These days mushroom cultivation has become a common indoor business. Shalini has grown white mushrooms which are shown below in the diagram. [3]



- a) Name the vitamins which are found abundantly in mushrooms.
- b) Write the scientific name of mushrooms.
- c) Name the major steps involved in its cultivation.

Time : 2 hrs.

PHYSICS

M.M. : 80

Answers to this Paper must be written on the paper provided separately. You will not be allowed to write during first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this Paper is the time allowed for writing the answers. Section A is compulsory. Attempt any four questions from Section B. The intended marks for questions or parts of questions are given in brackets []

SECTION - A

(Attempt all questions from this section)

1. Choose the correct answers to the questions from the given options. (Do not copy the questions, write the correct answer only) : [1×15=15]
- The unit of time is :
 - light year
 - Parsec
 - leap year
 - Fermi
 - Which of the following is the smallest unit?
 - Millimetre
 - Angstrom
 - Fermi
 - Metre
 - The strip of a vernier callipers is used to measure :
 - length of a wire
 - depth of a beaker
 - internal diameter of a sphere
 - diameter of a hollow sphere
 - The length of a second's pendulum is nearly :
 - 0.5 m
 - 9.8 m
 - 1.00 m
 - 2.0 m
 - The value of g is maximum at :
 - Tropic of Capricorn
 - Equator
 - Tropic of Cancer
 - Poles

vi) From the velocity-time graph, we can determine :

- The displacement of the body in a certain time interval
- The acceleration of the body at any instant
- both (a) and (b)
- None of these

vii) A car acquires a velocity of 54 km/h in 10s starting from rest, then its acceleration is :

- 0.5 m/s²
- 1 m/s²
- 1.5 m/s²
- 2.0 m/s²

viii) Assertion (A): On moon, a man feels heavier than on earth.

Reason (R): This is due to the lower value of 'g' on moon.

- Both A and R are true and R is the correct explanation of A
- Both A and R are true and R is not the correct explanation of A
- Assertion is false but reason is true
- Assertion is true but reason is false

ix) The value of gravitational constant G changes with the change in :

- height
- place
- distance
- It remains unchanged

x) Newton's Third Law :

- defines the force qualitatively
- defines the force quantitatively
- explains the way a force acts on a body
- gives the direction of force

xi) Regular reflection occurs when a beam of light falls on a _____ :

- smooth surface
- polished surface
- rough surface
- both (a) and (b)

xii) A ray of light incident on a plane mirror makes an angle of 25° with the mirror, then its angle of reflection will be -

- 25°
- 50°
- 90°
- 65°

xiii) The speed of sound in air at 0 °C is nearly :

- 1450 m/s
- 450 m/s
- 5100 m/s
- 330 m/s

xiv) Sound in air propagates in form of :

- longitudinal wave
- transverse wave
- both transverse and longitudinal waves
- neither transverse nor longitudinal wave

xv) The sound of frequency less than 20 Hz is called :

- supersonic
- Infrasonic
- Ultrasonic
- Ultrasound

2. i) Complete the following by choosing the correct answers from the bracket : [1×6=6]

- _____ can hear the highest frequency range sound. (Cats, bats)
- A longitudinal wave is composed of _____ and rarefaction. (Crest, compression)
- Force is a _____ quantity (scalar, vector)
- A ball placed on a table starts rolling down when the table is tilted. This is an example of _____. (Contact force, non-contact force)
- The motion of a train on a straight track is an example of _____ motion. (One dimensional, Two dimensional)
- The motion of a body is said to possess _____ when its speed increases with time. (retardation/acceleration)

- ii) What information do we get by a higher slope of velocity-time graph? [2]
- iii) Two equal and opposite forces act on a moving object. How is its motion affected? Give reason. [2]
3. a) [2]

- i) For what position of object, the image formed by a concave mirror is magnified and erect? [2]
- ii) State whether the image in part (a) is real or virtual? [2]
- b) Define the term amplitude of a wave. Write its S.I. unit. [2]
- c) Draw a neat diagram of simple pendulum. Show on it the effective length of the pendulum and its one oscillation. [2]
- d) Select the scalars and vectors from the following : [2]
- velocity, distance, acceleration, retardation.
- e) The linear momentum of a ball of mass 50 g is 0.5 kg m/s. Find its velocity. [2]
- f) Under what condition, can the acceleration of a body be 0. [2]
- g) A body at rest is made to fall from the top of a tower. Its displacement at different instants is given in the following table : [3]

Time (in s)	0.1	0.2	0.3	0.4	0.5	0.6
Displacement(in m)	0.05	0.20	0.45	0.80	1.25	1.80

Draw a displacement-time graph and state whether the motion is uniform or non-uniform?

Section - B

(Attempt any four questions from this section)

4. i) Name the spherical mirror which : [3]
- a) diverges,
- b) converges the beam of light incident on it. Justify your answer by drawing a ray diagram in each case.

- ii) Two plane mirrors are arranged parallel and facing each other at some separation. How many images are formed for a point object kept in between them? Show the formation of images with the help of a ray diagram. [3]
- iii) A train first travels for 30 minutes with a velocity 30 km/h and then for 40 min with a velocity 40 km/h in the same direction. Calculate: (i) the total distance travelled, (ii) the average velocity of the train. [4]
5. i) Name two units of length which are bigger than a metre. How are they related to Angstrom? [3]
- ii) Name two factors on which time-period of a simple pendulum depends. Write the relation for the time period in terms of the above named factors. [3]
- iii) The speed of sound in air is 330 m/s and in water is 1650 m/s. It takes 2 s for sound to reach a certain distance from the source placed in air. [4]
- a) Find the distance,
- b) How much time will it take to reach the same distance when the source is in water?
6. i) What is backlash error? Why is it caused? How is it avoided? [3]
- ii) Name the law responsible for the following observations : [3]
- a) Athletes often land on sand (or foam) after taking a high jump [3]
- b) Motion of a boat away from the shore while stepping down from it [4]
- c) Motion of a man on the ground [4]
- iii) The following table represents the distance of a car at different instants in a fixed direction. [4]

Time (s)	0	1	2	3	4	5
<u>Distance</u> (m)	0	10	20	30	40	50

- a) Draw a displacement-time graph and with its help, find whether the motion of the car is uniform or non-uniform?
- b) Use graph to calculate:
- 1) the velocity of car
 - 2) the displacement of car at $t = 2.5$ s and $t = 4.5$ s.

7. i) Draw displacement-time graph of a wave and show on it the amplitude and time period of wave. [3]

ii) Ocean waves of time period 10 s have wave velocity 15 m/s. Find [3]

- a) the wavelength of these waves,
- b) the horizontal distance between a wave crest and its adjoining wave trough.

iii) The image of an object placed at a distance of 30 cm on the principal axis of a concave mirror from its pole is formed on the object itself. Find : [4]

- a) the focal length, and
- b) linear magnification of mirror.

8. i) A body of mass m moving with a velocity v is acted upon by a force. Write expression for change in momentum in each of the following cases : [3]

- a) when $v \ll c$
- b) when $v \rightarrow c$, and
- c) when $v \ll c$ but m does not remain constant. Here c is the speed of light.

ii) How will you distinguish between a plane mirror, a concave mirror and a convex mirror, without touching them? [3]

iii) A ball of mass 10 g is moving with a velocity of 50 ms^{-1} . On applying a constant force on ball for 2.0 s, it acquires a velocity of 70 ms^{-1} . Calculate : [4]

- a) the initial momentum of ball..
- b) the final momentum of ball,
- c) the rate of change of momentum, and
- d) the acceleration of ball.

9. i) An object is placed between focus and centre of curvature of a concave mirror. Draw a diagram for the formation of image. [3]

ii) State Newton's law of gravitation, state whether the gravitational force between two masses is attractive or repulsive. What is the importance of law of gravitation? [3]

iii) A body with an initial velocity of 18 km/h accelerates uniformly at the rate of 4 cm/s^2 over a distance of 200 m, calculate : [4]

- a) the acceleration in m/s^2
- b) its final velocity in m/s

□□□

- v) What is the sum of two numbers whose difference is 45 and the quotient of the greater number by the lesser number is 4?
 a) 100 b) 90
 c) 80 d) 75
- vi) Which of the following is not a criterion for congruency of triangles?
 a) SAS b) ASA
 c) SSA d) SSS
- viii) In $\triangle ABC$, $\angle B = 60^\circ$, $\angle C = 75^\circ$ and $\angle A = 45^\circ$, then
 a) $AB > AC > BC$ b) $AB < AC < BC$
 c) $AB < AC < BC$ d) None of these
- ix) D, E, and F are the mid points of the sides BC, CA and AB respectively of an equilateral $\triangle ABC$. Then $ADEF$ is
 a) An isosceles triangle
 b) A scalene triangle
 c) An equilateral triangle
 d) None of these
- x) The length of the three sides of a right angled triangle are $(x-2)$ cm, x cm and $(x+2)$ cm respectively. Then the value of x is
 a) 10 b) 8
 c) 4 d) 0
- xi) If the perimeter of an equilateral triangle is 42 cm, what is its area?
 a) $24\sqrt{3}$ cm² b) $49\sqrt{3}$ cm²
 c) $7\sqrt{3}$ cm² d) $14\sqrt{3}$ cm²
- xii) What is the area of rhombus with side 13 cm and one diagonal 10 cm?
 a) 140 sqcm b) 130 sqcm
 c) 120 sqcm d) 110 sqcm

- xiii) The ratios of the outer and inner perimeter of a circular path is 23:22. What is the diameter of the inner circle if the path is 5m wide?
 a) 110 m b) 55 m
 c) 220 m d) 230 m
- xiv) Assertion (A) : Compound interest is always greater than simple interest for the same time, rate of interest and the principal
 Reason (R) : The S.I. is calculated only on the principal whereas the C.I. is calculated on the principal as well as on the previously earned interest.
 a) Both A and R are true and R is correct explanation of A.
 b) Both A and R are true but R is not correct explanation of A.
 c) A is true R is false.
 d) A is false R is true.
- xv) Assertion (A) : A square and a rectangle with the same perimeter will always have a same area.
 Reason (R) : Area of a square is (side)² and area of a rectangle is length \times width.
 a) Both A and R are true and R is correct explanation of A.
 b) Both A and R are true but R is not correct explanation of A.
 c) A is true R is false.
 d) A is false R is true.
2. a) Find the values of a and b if $\frac{\sqrt{3}-1}{\sqrt{3}+1} = a + b\sqrt{3}$ [4]
 b) The difference between the simple and compound interest for certain sum of money for 3 years at 5% per annum is ₹122. Find the sum. [4]
 c) Find the value of $x^3 + \frac{1}{125x^3}$ if $x^2 + \frac{1}{25x^2} = \frac{43}{5}$ [4]

5. a) Factorise the followings :

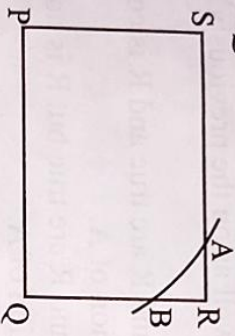
i) $14x^2 - 60xy + 16y^2$

ii) $x^3 - \frac{1}{x^3} - 6x + \frac{6}{x}$

b) Solve for x and y:

$9x + 4y = 5$, $4x - 5y = 9$

c) In fig. PQRS is a square. Arc AB is drawn with Centre P and any radius less than PR, cutting SR at A and RQ at B. Prove that $AS = BQ$.



Note : Attempt any 4 questions from this section.

Section-B

[40 Marks]

4. a) ABC is a triangle. The bisector of the angle BCA meets AB in X. A point Y lies on CX such that $AX = AY$. Prove that $\angle CA Y = \angle ABC$. [3]
- b) The perimeter of a rectangular football ground 120 m long is 440 m, find the area in m^2 . [3]
- c) Draw the graph of the line given by $4x + 5y = 20$. Find graphically the value of x when $y = 0$. [4]
5. a) A line is of length 10 and one end is at the point $(-3, 2)$. If the ordinate of the other end be 10, prove that the abscissa will be 3 or -9. [3]
- b) A garden roller has a circumference of 3 meters. How many revolutions does it make in moving a distance of 21 meters? [3]
- c) Find the amount and compound interest on a sum of ₹15,625 at 4% per annum for 3 years compounded annually. [4]

6. a) If $x = 2 + \sqrt{3}$, Find the value of $x^2 + \frac{1}{x^2}$. [3]

b) If $a + b + c = 0$; show that $a^3 + b^3 + c^3 = 3abc$ [3]

c) Factorise :

i) $5y^2 - 45y - 110$ [4]

ii) $x^3 + 2x^2 - x - 2$

7. a) The cost of 5 pencils and 6 erasers is ₹180 whereas that of 3 pencils and 2 erasers is ₹92. Find the cost of a pencil and an eraser. [3]

b) A ladder 13 m long rests against a vertical wall. If the foot of the ladder is 5m from the wall, find the distance of the other end of the ladder from ground. [3]

c) Solve for x and y :

$3x - 2y = 7$, $5x + 3y = -1$ [4]

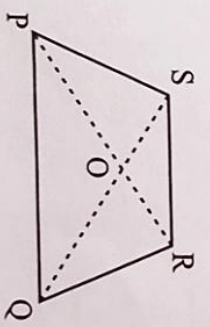
8. a) The perimeter of a triangle is 540 m and its sides are in the ratios 25 : 17 : 12. Find the area of the triangle. [3]

b) A road 3.5 m wide surrounds a circular plot whose circumference is 44m. Find the cost of paving the road at ₹10 per m^2 . [3]

c) Find four rational numbers between -1 and $-\frac{1}{2}$. [4]

9. a) Ashish purchased a boat for ₹16,000. If the cost of the boat after two years depreciates to ₹14,440. Find the rate of depreciation. [5]

b) Diagonals PR and QS of a quadrilateral PQRS intersect each other at O. Prove that : $PQ + QR + RS + SP > PR + QS$ [5]



10. a) Prove that the figure formed by joining the mid points of the consecutive sides of a quadrilateral is a parallelogram. [3]

b) A room is 18 m long, 14 m wide, and 8 m high. [3]

Find :

i) The area of the four walls

ii) The total surface area of the six faces of the room.

c) In a $\triangle ABC$, $AD \perp BC$, Prove that :

$$AB^2 + CD^2 = AC^2 + BD^2$$

[4]

□□□

Note : You will not be allowed to write during the first fifteen minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. The intended marks for questions are given in brackets. []

प्रश्न-पत्र दो भागों में विभक्त है। खण्ड-क के सभी प्रश्नों के उत्तर दीजिए। खण्ड-ख से केवल चार प्रश्नों के उत्तर देने हैं। साहित्य सागर (गद्य) व साहित्य सागर (पद्य) से एक-एक प्रश्न का उत्तर देना अनिवार्य है।

(खण्ड - क)

(40)

1. निम्नलिखित विषयों में से किसी एक विषय पर हिन्दी में निबन्ध लिखिए जो 250 शब्दों से कम न हो।

(15)

क) वर्तमान युग में मोबाइल फोन जीवन की आवश्यकता बन गया है। इस विषय पर अपने विचार प्रकट कीजिए और बताइए कि मोबाइल फोन जीवन में सुविधा के साथ-साथ मुसीबत किस प्रकार बन जाता है?

ख) अनेकता में एकता भारतीय संस्कृति की पहचान है। भारत में विभिन्न प्रकार के त्योहार मनाए जाते हैं, जो हमें सांस्कृतिक परम्पराओं और रीति-रिवाजों से जोड़े रखते हैं। त्योहारों के महत्व पर प्रकाश डालते हुए एक प्रस्ताव लिखिए।

ग) हमारे देश में जनसंख्या बढ़ती जा रही है और संसाधन घटते जा रहे हैं। जनसंख्या वृद्धि एवं उसके दुष्परिणाम पर एक प्रस्ताव लिखिए।

घ) 'ईश्वर जो करता है अच्छा ही करता है।' इस उक्ति को आधार बनाकर कोई मौलिक कहानी लिखिए।

ङ) नीचे दिए गए चित्र को ध्यान से देखिए और इस चित्र को

आधार बनाकर वर्णन कीजिए। वर्णन का सीधा सम्बन्ध चित्र से होना आवश्यक है।



2. निम्नलिखित में से किसी एक विषय पर हिन्दी में लगभग 120

शब्दों में पत्र लिखिए :

(7)

क) अपने नगर/क्षेत्र के स्वास्थ्य अधिकारी को पत्र लिखकर अपने क्षेत्र में 'खाने की वस्तुओं में मिलावट' की घटनाओं के प्रति उनका ध्यान आकृष्ट कीजिए।

ख) आपका छोटा भाई (अनुज) किसी दूसरे शहर में एक आवासीय विद्यालय में पढ़ता है। खेलकूद के लाभों के विषय में बताते हुए उसे एक पत्र लिखिए।

3. निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए। उत्तर यथा संभव आपके अपने शब्दों में होना चाहिए :

एक राजा का दरबार लगा हुआ था। सर्दियों के दिन थे, इसलिए राजा का दरबार खुले स्थान पर लगा था। पूरी सभा सुबह की धूप में बैठी थी। महाराज ने सिंहासन के सामने एक मेज डलवा रखी थी। राजा के दरबार के सभी सदस्य, पंडितजन, दीवान आदि दरबार में बैठे थे। इसी समय एक व्यक्ति वहाँ आया और राजा से मिलने की आज्ञा माँगी। प्रवेश मिल गया तो उसने कहा- "मेरे पास दो वस्तुएँ हैं, बिल्कुल एक जैसी लेकिन एक नकली और एक असली है। मैं हर राज्य के राजा के पास जाता हूँ और उन्हें परखने का आग्रह करता हूँ, लेकिन कोई परख नहीं पाता। सब हार जाते हैं और मैं विजोता बनकर घूम रहा हूँ।

राजा ने उसे दोनों वस्तुओं को पेश करने का आग्रह किया तो उसने दोनों वस्तुएँ मेज पर रख दीं। बिल्कुल समान आकार, समान रूप-रंग, समान प्रकाश, सब कुछ नख-शिख समान। राजा ने कहा- "ये दोनों वस्तुएँ एक हैं।" तो उस व्यक्ति ने कहा, "हाँ दिखाई तो ऐसे ही देती हैं लेकिन इनमें से एक कीमती हीरा है और दूसरा काँच का टुकड़ा। कोई आज तक परख नहीं पाया कि कौन-सा हीरा है और कौन-सा काँच। कोई परख कर बताए कि इनमें हीरा कौन-सा है? अगर परख सही निकली तो यह कीमती हीरा आपके राज्य की तिजोरी में जमा करवा दूँगा। यदि कोई न पहचान

पाया तो इस हीरे की जो कीमत है उतनी धनराशि आपको मुझे देनी होगी।

राजा ने कई बार उन दोनों वस्तुओं को गौर से देखकर परखने की कोशिश की और अन्त में हार मानते हुए कहा- "मैं तो नहीं परख सकूँगा।" कोई व्यक्ति भी नहीं पहचान पाया। अन्त में पीछे से एक अंधा आदमी हाथ में लाठी लेकर उठा। उसने राजा से हीरे को परखने की अनुमति माँगी। अनुमति मिलने पर उस अंधे आदमी के हाथ में दोनों वस्तुएँ दे दी गईं और पूछा गया कि इनमें से कौन-सा हीरा है और कौन-सा काँच है?

उस आदमी ने एक मिनट में बता दिया कि यह हीरा है और यह काँच। जो व्यक्ति इतने राज्यों से जीत कर आया था, वह भी नतमस्तक हो गया और बोला, "सही है, आपने पहचान लिया, आप धन्य हैं। अपने वचन के मुताबिक मैं यह हीरा आपके राज्य की तिजोरी में दे रहा हूँ।" दरबार के लोग बहुत खुश हुए। लोगों ने अंधे व्यक्ति से यह पूछा कि "उसे कैसे पता चला कि यह हीरा है और यह काँच?"

उस अंधे व्यक्ति ने कहा, "सीधी-सी बात है, धूप में हम सब बैठे हैं। मैंने दोनों को छुआ। जो ठंडा रहा, वह हीरा, जो गर्म हो गया वह काँच।"

यही बात हमारे जीवन में भी लागू होती है। जो व्यक्ति बात-बात में आपा खो देता है, गर्म हो जाता है, वह काँच जैसा होता है। जो विपरीत परिस्थिति में भी ठंडा रहते हुए बुद्धि से काम लेता है, वही सच्चा हीरा होता है।

क) राजा ने अपना दरबार कहाँ और क्यों लगाया था? (2)

ख) दरबार में आने वाले व्यक्ति के पास कितनी वस्तुएँ थी और

उनकी क्या विशेषता थी? (2)

ग) उस व्यक्ति ने राजा से क्या कहा? (2)

घ) राजदरबार में कौन-कौन उपस्थित था? (2)

ङ) हीरे की पहचान किसने और किस प्रकार की? (2)

जब मैं था तब हरि नहीं, अब हरि है मैं नाहि।

प्रेम गली अति साँकरी, तामे दो न समाहि।।

क) कवि ने गुरु और गोविंद में किसे बड़ा बताया है और क्यों? (2)

ख) कवि किस पर बलिहारी होना चाहते हैं? तर्क सहित स्पष्ट कीजिए। (2)

ग) 'मैं' का अर्थ स्पष्ट कीजिए। 'मैं' के होने पर हम किसे नहीं जान पाते हैं? (3)

घ) 'प्रेम गली' से कवि का क्या तात्पर्य है? उसकी क्या विशेषता है? (3)

9. लाठी में गुण बहुत है, सदा राखिए संग
गहरि नदी, नारी जहाँ, तहाँ बचावै अंग।।

तहाँ बचावे अंग, झपटि कुत्ता कहँ मारे।

दुश्मन दावागीर, होयँ तिनहूँ को झारै।।

कह 'गिरिधर कविराय' सुनो हो धूर के बाठी।।

सब हथियारन छाँड़ि, हाथ मँह लीजै लाठी।।

क) प्रस्तुत कुंडली के कवि कौन है? उन्होंने पैदल यात्रा करने वालों को क्या सलाह दी है? (2)

ख) लाठी हमारे शरीर की सुरक्षा किस प्रकार करती है? (2)

ग) 'सुनो हो धूर के लाठी' पंक्ति से कवि क्या कहना चाहते हैं? (3)

घ) शब्दों के अर्थ लिखिए : (3)

गहरि, नारी, दावागीर, अंग, छाँड़ि, तिनहूँ

10. प्रभु के दिए हुए सुख इतने है विकीर्ण धरती पर,

भोग सके जो उन्हें जगत में, कहाँ अभी इतने नर?

सब हो सकते तुष्ट, एक-सा, सब सुख पा सकते हैं,

चाहे तो पल में धरती को, स्वर्ग बना सकते हैं।

क) प्रस्तुत पंक्तियाँ किस कविता से ली गई हैं? कविता और कवि का नाम लिखिए। (2)

ख) उपर्युक्त पंक्तियों में कौन-किसे उपदेश दे रहा है? (2)

ग) 'कहाँ अभी इतने नर?' पंक्ति द्वारा कवि क्या कहना चाहता है? (3)

घ) धरती को स्वर्ग बनाने के लिए क्या आवश्यक है? (3)

Half Yearly Examination : 2025-26

Class - IX

Time : 2 Hrs.

Computer Applications

M.M. : 100

Note : You will not be allowed to write during first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. This paper is divided into two sections. Section A and section B. Attempt all questions from section A and any four questions from section B. The intended marks for questions or parts of questions are given in brackets [].

Section - A

[40 Marks]

Attempt all questions.

1. Choose the correct answer and write.

[20×1=20]

i) Name the process that converts source code to bytecode.

- a) Interpretation b) Compilation
c) All of these d) None of these

ii) Name the type of error :

System.out.println(5/0);

- a) logical error b) syntax error
c) runtime error d) no error

iii) Find the odd one out.

- a) += b) /=
c) *= d) ==

iv) Which of the following is a correct form of expressing comment in Java?

- a) // comment b) * / comment* /
c) /* comment d) all of the above

v) '65' is belongs to which type of constant?

- a) char b) int
c) byte d) none

vi) Which one is not allowed as a case constant in switch?

- a) char b) float
c) boolean d) int

vii) String in Java is a _____.

- a) class b) non-primitive data type
c) both a & b d) none of the above

viii) What is the key ASCII range for lowercase letters (a-z)?

- a) 0-9 b) 65-75
c) 48-57 d) 97-122

[2]

ix) Which operator is used to concatenate strings in Java?

- a) add
- b) +
- c) join
- d) *

x) What is the default value of boolean data type?

- a) False
- b) FALSE
- c) 0
- d) false

xi) POP follows

- a) top down approach
- b) bottom up approach
- c) modular
- d) none of the above

xii) Find the odd term out?

- a) ++
- b) /
- c) !
- d) --

xiii) Modulus operator (%) can be applied to which of these?

- a) integers
- b) float
- c) char
- d) both (a) and (b)

xiv) Wrapper classes of Java comes under which package?

- a) java.io
- b) java.util
- c) java.lang
- d) java.default

xv) Which of these is used to perform all input & output operations in Java?

- a) streams
- b) classes
- c) methods
- d) variables

xvi) Which one is not a valid method of Scanner class?

- a) nextInt()
- b) nextFloat()
- c) nextChar()
- d) next()

xvii) The number of bytes occupied by the constant 'A' are:

- a) 65 bytes
- b) 2 bytes
- c) 1 byte
- d) 4 bytes

xviii) int x=2; What is the value of x?

- a) 50
- b) Two
- c) 2
- d) 98

xix) An unary _____ operator is used to revert the sign of an operand.

- a) +
- b) -
- c) !
- d) both (b) and (c)

(xiv) Which of the following is the default package?
/ of java?

[3]

xx) Which among the following is a valid identifier?

- a) \$_123\$
- b) s name
- c) class
- d) 123abc

2. a) State the difference between Applet and Application.

[2x5=10]

b) Name the fundamental / primitive data types in java.

c) Differentiate between ceil() and floor() functions.

d) What is the use of?

i) Dot (.) operator

ii) new operator

e) What is package? How to import a package?

3. a) Write the following expression in java form : [2x5=10]

$$p = \sqrt{a^3 + b^4}$$

b) What will be the value of x if

int x=0,y=0,z=0;

x=(++x+y--)*z++;

c) Differentiate between next() and nextLine().

d) What is the significance of default case in switch?

e) Rewrite the following set of if-else statement in terms of switch case statement for the following code fragment :

```
int code;
code=sc.nextInt();
if (code==1)
```

System.out.print("Accountant");

else

if (code==5 || code==6)

System.out.print("Grade IV");

else

if (code==3)

System.out.print("Financial Advisor");

Section - B

[60 Marks]

Attempt any four questions from this section.

4. a) Write a program to input three numbers from user and check whether all of them are unique or not. [7]
 b) Write a java program to input three numbers and display in ascending order. [8]
5. What is Object Oriented Programming? Explain all the principles of OOPs with real world example. [15]
6. What do you understand by each of the following? [5×3=15]
 i) Byte code ii) Unicode iii) JVM
7. Write a program to check whether a given year is a leap year or not. Centuries are to be divided by 400 to check whether it is leap year or not. [15]
8. Write a program to compute the monthly telephone bill to be paid according to the given condition after accepting the total no of calls made by a customer in a month. [15]

Calls made	Rate
Upto 100 calls	No charge
For the next 100 calls	90 paise per call
For the next 200 calls	80 paise per call
More than 400 calls	70 paise per call

9. Write a program to accept three sides of a triangle as parameter and check whether it can form a triangle or not. If it forms a triangle, check whether it is an acute angled, obtuse angled or right angled triangle.
 (Hint : To form a triangle, each side should be less than sum of the other two side)
 To form an acute angled triangle the square of every side should be less than the sum of the squares of the other two sides.
 To form an obtuse angled triangle the square of any side should be greater than the sum of the squares of the other two sides.
 To form a right angled triangle the square of any side should be equal to the sum of the squares of the other two sides. [15]

Answers to this Paper must be written on the paper provided separately. You will not be allowed to write during first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this Paper is the time allowed for writing the answers. Section A is compulsory. Attempt any four questions from Section B. The intended marks for questions or parts of questions are given in brackets []

SECTION - A [40 Marks]

(Attempt all questions from this Section)

1. Choose the correct answers to the question from the given options : [15]
(Do not copy the questions, write the correct answers only.)
- i) Which of the following is a covalent compound :
a) Water b) Sodium chloride
c) Calcium oxide d) Magnesium chloride
- ii) The salt that undergoes thermal dissociation :
a) Sodium chloride b) Ammonium chloride
c) Lead bromide d) None
- iii) Electronic configuration of potassium ion :
a) 2,8,1 b) 2,7 c) 2,8,8 d) 2,6
- iv) The valency of oxygen in water is :
a) 1 b) 3 c) 4 d) 2
- v) **Assertion(A):** White silver chloride turns grey in sunlight.
Reason(R): Decomposition of Silver chloride in presence of sunlight takes place to form silver metal and chlorine gas.
- a) Both A and R are true and R is the correct explanation of A
b) Both A and R are true but R is not the correct explanation of A
c) A is true but R is false
d) A is false but R is true

- vi) The absolute temperature value that corresponds to 77°C is :
 a) 200 K b) 400 K
 c) 246 K d) 350 K
- vii) When copper carbonate is heated, then the colour of the residue in cold state is :
 a) Blue c) Yellow
 b) Black d) White
- viii) Water of crystallization in washing soda is :
 a) 5 c) 9
 b) 7 d) 10
- ix) MSO_4 is a sulphate of a metal M. The formula of its hydroxide is:-
 a) $\text{M}(\text{OH})_3$ b) MOH
 c) $\text{M}(\text{OH})_2$ d) None
- x) The molecular mass of water: - (Atomic mass of $\text{H}=1, \text{O}=16$):
 a) 18 u b) 180 u
 c) 270 u d) None
- xi) Assertion(A): Two electrons of Helium atom are placed in only one shell (K) but three electrons of Lithium need two shells (K.L).
 Reason(R): A shell can have maximum of 2^n electrons.
 a) Both A and R are true and R is the correct explanation of A
 b) Both A and R are true but R is not the correct explanation of A
 c) A is true but R is false
 d) A is false but R is true
- xii) % of water of crystallisation in blue vitriol is :
 (Cu = 64, S = 32, O = 16, H=1)
 a) 21% b) 19%
 c) 36% d) 20%

- xiii) When Ammonium dichromate is heated, then the colour of the residue is :
 a) Green c) Yellow
 b) Black d) White
- xiv) With the rise in temperature the solubility of Potassium nitrate in water:
 a) Decreases
 b) Increases and then decreases
 c) Increases
 d) Decreases only a little
- xv) Volume-pressure relationship is given by :
 a) Boyle b) Gay Lussac
 c) Dalton d) Charles
2. i) Write the chemical formula for the following : [5]
 a) Potassium sulphate
 b) Sodium sulphide
 c) Magnesium nitride
 d) Ammonium nitrate
 e) Iron(II)hydroxide
- ii) Match the following Column A with Column B. [5]
- | | |
|-------------------|------------------------------------|
| Column A | Column B |
| a) Epsom salt | 1) Calcium sulphate dihydrate |
| b) Blue vitriol | 2) Sodium sulphate decahydrate |
| c) Green vitriol | 3) Magnesium sulphate heptahydrate |
| d) Glauber's salt | 4) Ferrrous sulphate heptahydrate |
| e) Gypsum | 5) Copper sulphate pentahydrate |
- iii) Complete the following by choosing the correct answers from the bracket : [5]
 a) An atom or a group of atoms of the same or of different elements that behaves as a single unit with a positive charge is called _____ radical.
 [acidic / basic]

[4]

- b) A molecule which has double covalent bond _____. [oxygen molecule/nitrogen molecule]
- c) In ionic compound the bond is formed due to _____ of electrons. [sharing/transfer]
- d) Water molecule has _____ bond pairs. [1/2]
- e) At constant temperature, volume of a given mass of a dry gas is directly proportional to its absolute temperature is _____. [Boyle's law/ Charles's law]
- iv) Name the following : [5]
- a) A reaction in which heat is absorbed.
- b) A reaction in which heat is evolved.
- c) Rotten egg smelling gas.
- d) A reaction also known as synthesis reaction.
- e) A reddish brown gas which has a pungent odour.
- v) Balance the following equations : [5]
- a) $P + HNO_3 \rightarrow H_3PO_4 + H_2O + NO_2$
- b) $C + H_2SO_4 \rightarrow CO_2 + SO_2 + H_2O$
- c) $AgNO_3 + HCl \rightarrow AgCl + HNO_3$
- d) $NO_2 + H_2O \rightarrow HNO_2 + HNO_3$
- e) $Pb(NO_3)_2 \rightarrow PbO + NO_2 + O_2$

Section - B [40 Marks]

(Attempt any four questions)

- 3) i) Write the name of acidic and basic radical in the following compounds : [2]
- a) $K_2Cr_2O_7$ b) Na_2SO_4
- ii) Define : [2]
- a) Hygroscopic substance
- b) Anhydrous substance
- iii) Draw the orbit structure of the following : [3]
- a) HCl b) CH_4
- c) O_2
- (Atomic no. H = 1, Cl = 17, C = 6, O = 8)

[5]

- iv) Atomic number of element A, B and C are 12, 17 and 20 respectively, then answer the following questions : [3]
- a) Number of electron in outermost shell of A.
- b) Electronic configuration of B.
- c) Number of electron in L shell of C.
4. i) Define Neutralisation reaction with an example. [2]
- ii) State one difference in each pair : [2]
- a) Drying agent and Dehydrating agent.
- b) Temporary hardness and Permanent hardness.
- iii) The formula of carbonate of a metal M is MCO_3 , then write the formula of its : [3]
- a) Nitrate b) Sulphite
- c) Chloride
- iv) For atom ${}_{19}K^{39}$ find : [3]
- a) Number of protons
- b) Number of neutrons
- c) Number of electrons in K^{+1}
5. i) Calculate the % of carbon and oxygen in washing soda. (Atomic mass of Na = 23, C = 12, O = 32, H = 1) [2]
- ii) Define the following terms : [2]
- a) Absolute zero b) Valency
- iii) Write the electronic configuration of : [3]
- a) Na b) Ne c) Ca
- iv) Calculate molecular mass of : [3]
- a) Na_2CO_3 (Na = 23, C = 12, O = 16)
- b) $C_{12}H_{22}O_{11}$ (C = 12, H = 1, O = 16)
- c) $(NH_4)_2Cr_2O_7$ (N = 14, H = 1, Cr = 52, O = 16)
6. i) Define the following : [2]
- a) Saturated solution b) Decomposition reaction
- ii) Convert : [2]
- a) 200 K to $^{\circ}C$ b) $-53^{\circ}C$ to K

iii) What do you observe when? [3]

a) Hydrated copper (II) sulphate is heated strongly,

b) Barium chloride solution is added to sodium sulphate solution.

c) Calcium nitrate is heated strongly.

iv) Prove that the volume of a gas at 273°C is twice its volume at 273 K at constant pressure. [3]

i) Write the name of the following compound : [2]

a) $\text{Zn}(\text{ClO}_3)_2$ b) $\text{Ca}(\text{HCO}_3)_2$

ii) Define the following : [2]

a) Mass number b) Isotopes

iii) Identify the type of reaction : [3]

a) $\text{Ca} + \text{N}_2 \rightarrow \text{Ca}_3\text{N}_2$

b) $\text{FeSO}_4 + \text{NaOH} \rightarrow \text{Fe}(\text{OH})_2 + \text{Na}_2\text{SO}_4$

c) $\text{CuCO}_3 \rightarrow \text{CuO} + \text{CO}_2$

iv) One litre of a gas at 10°C is heated till both its volume and pressure are doubled. Find the new temperature. [3]

8. i) Define the following terms : [2]

a) Chemical reaction

b) Ionic bond

ii) Balance the following : [2]

a) Sodium Nitrate \rightarrow Sodium nitrite + Oxygen

b) Zinc + Potassium hydroxide \rightarrow

Potassium zincate + Hydrogen

iii) Pressure of a gas at S.T.P. is doubled and the temperature is raised to 546K . What is the final volume of the gas? [3]

iv) State the type of bonding present in the following : [3]

a) Ammonia

b) Magnesium oxide

c) Chlorine molecule

Time : 2 hrs.

HISTORY & CIVICS

M.M. : 80

Note : You will not be allowed to write during the first fifteen minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. Attempt all questions from Part I (Compulsory). A total of five questions are to be attempted from Part II, two out of three questions from Section A and three out of five questions from Section B. The intended marks for questions are given in the brackets[.]

Part-I

[30 Marks]

(Attempt all questions from this Part)

or

1. Choose the correct answers of the questions from the given options :

[16]

i) Which of the following is not a feature of dockyard at Lothal?

- a) World's oldest dockyard
- b) Presence of mud brick platform.
- c) Surrounded by wall of baked bricks
- d) Connected by channels to Gulf of Cambay

ii) 'Vidatha' the assembly of Vedic Age, did not perform which of the following functions?

- a) Economic
- b) Social
- c) Religious
- d) Administrative

iii) Jataka Tales gives us information about _____.

- a) Buddha's previous births
- b) Socio-economic conditions
- c) Climatic conditions
- d) None of the above

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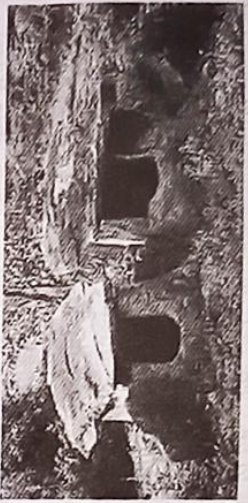
iv) State the relationship between the two sentences:

(A) Most of the Ashokan edicts are engraved in Brahmi Lipi written from left to right.

(R) The Ashokan edicts provide a useful insight into the life and ideals of Ashoka.

- a) R contradicts A
- b) R is the reason for A
- c) A is true but R is false
- d) A and R are independent of each other.

v) In the given picture, box like structures erected with stone slabs are shown which acted as burial sites during Sangam Age. What were they known as?



- a) Citadel b) Megaliths
c) Edicts d) Stupa

vi) Which of the following pair is incorrect?

- a) Bhukti : Uparika
b) Vishaya : Vishayapati
c) Vithis : Vithipala
d) Janapada : Purapala

vii) The Chola Empire was divided into _____ and further divided into _____ and _____.

- a) Mandalam, Ur and Sabha.
b) Mandalam, Valanadu and Nadu
c) Sabha, Samiti and Nagarams
d) Sabha, Ur and Nagarams

viii) Which of the following is not a work of Kalidasa?

- a) Meghaduta b) Raghuvansha
c) Ritusamhara d) Surya Siddhanta

ix) State the relationship between the two sentences:

(A) Jains believe in Moksha or freedom from cycle of birth and rebirth.

(R) According to Jainism, good deeds alone can lead to salvation.

- a) R contradicts A
b) R is the reason for A
c) A is true but R is false
d) A and R are independent of each other.

x) Who was elected as the chairperson of the drafting committee of constituent Assembly?

- a) Dr. Sachidananda Sinha
b) Dr. Rajendra Prasad
c) Dr. B.R. Ambedkar
d) Pt. Jawahar Lal Nehru

xi) Which of the following are the salient features of Indian Constitution?

- a) Universal adult Franchise
b) Fundamental Duties
c) Single Citizenship
d) All of the above

xii) Right to Information is implied in which of the following Fundamental Rights?

- a) The Right to Freedom of speech and expression
b) The Right to Equality
c) The Right against Exploitation
d) The Right to Education

xiii) Identify the statements about the Fundamental Rights which are correct:

- ~~(a) PQR~~ P They are provided in part III of the Constitution
~~(b) PQS~~ Q They are a certain kind of restrictions on the state
~~(c) QRS~~ R Their aim is to establish a Welfare State
~~(d) PQR~~ S They provide a measure to judge a government's performance.
(e) SSR

xiv) State the relationship between the two sentences:

(A) The Directive Principles are a substitute for the laws.

(R) The Directive Principles are the guidelines for the government to make laws.

- a) A is true but R is false
b) A is false but R is true

- c) Both A and R are true but R is not the correct explanation of the A
d) Both A and R are false.
- xv) Which of the following measures reflect the implementation of Directive Principles by the government?
a) Untouchability made a punishable offence
b) The Right to Education Act
c) Reservations for Economically Weaker Sections
d) All of the above
- xvi) If a male and a female are selected for the same post but the female candidate gets less salary, which of her following rights is getting discriminated?
a) The right to Freedom
b) The Right against Exploitation
c) The Right to constitutional Remedies.
d) The Right to Equality
2. i) What is meant by the term Constitution? When was Indian constitution adopted and passed? [2]
ii) What is meant by the term 'Right against Exploitation'? [2]
iii) What are known as Triratnas? [2]
iv) Give four noble truths of Buddhism. [2]
v) What was the position of women during the Sangam Age? [2]
vi) Mention two architectural features of Deogarh Temple. [2]
vii) State two evidences to show that Harappans traded with foreign countries. [2]

Part-II [50 Marks]
Section-A (CIVICS)

3. With reference to the Indian Constitution, explain the following questions:
a) Single Citizenship [3]
b) Universal Adult Franchise [3]
c) State four characteristic features of Fundamental Rights. [4]
4. With reference to the Fundamental Rights and Duties, answer the following :
a) Explain the Right to Constitutional Remedies. [3]
b) State the main components of Right to Education. When was this right granted by the Indian constitution? [3]
c) State four Fundamental Duties of Indian Citizens. [4]
5. With reference to Directive Principles of State Policy, explain the following :
a) State the meaning of Directive Principles. [3]
b) What is meant by Welfare State? [3]
c) Write the difference between the Directive Principles and Fundamental Rights. [4]
6. With reference to the Harappan Civilization, answer the following :
a) State three characteristic features of town planning. [3]
b) Importance of Great Bath as a source of information. [3]
c) Study the picture and answer the following questions:



Identify the seal. What is depicted on this seal? What does it reveal about the beliefs of Harappans? Of what material these seals were made? [4]

7. **With reference to the Vedic Age, explain the following:**

- a) Explain briefly the class divisions that existed in the Vedic society. [3]
- b) What changes occurred in the society during the Later Vedic Age. [3]
- c) Explain the four stages in the life of an Aryan. [4]

8. **With reference to the Mauryan Empire, answer the following:**

- a) Importance of Arthashastra as a source of Information. [3]
- b) Describe the civil administration of Mauryans. [3]
- c) What is Ashoka's Dhamma? What was its impact on Ashoka's policies. [4]

9. **With reference to the Age of Guptas, explain the following:**

- a) Accounts of Fa-Hien [3]
- b) Write a short note on Nalanda University. [3]
- c) Explain the contribution of Aryabhata in the field of science and mathematics. [4]

10. a) Who established the rule of Cholas? Name two important rulers of Chola Dynasty. [3]

b) What was the special feature of Chola Inscriptions? Who conceptualized the idea? Name one temple built by him. [3]

c) State main features of Chola Art. [4]

Note : You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. Attempt all five questions. The intended marks for questions or parts of questions are given in brackets. You are advised to spend not more than 30 minutes in answering question 1 and 20 minutes on question 2.

1. (Do not spend more than 30 minutes on this question)

Write a composition (300-350 words) on any one of the following :

[20]

- i) Write an original story entitled "The Timely Advice"
- ii) Relate a special incident or experience in your life which you still recall with happiness.
- iii) 'Money causes more harm than good'. Express your views either for or against this statement.
- ✓ iv) A school carnival or fete is a great occasion for fun with friends. Describe one such event in your school.
- v) Study the picture given below. Write a story or a description or an account of what it suggests to you. Your composition may be about the subject of the picture or may take suggestions from it; however, there must be a clear connection between the picture and your composition.



2. (Do not spend more than 20 minutes on this question).

Select any one of the following :

[10]

- i) Your class was taken to visit an Old Age Home where you spent half a day with the residents. Write a letter to a friend telling him/her what you saw, how you felt and in what way you have changed since the visit.

ii) Write a letter to your local M.L.A complaining about frequent and prolonged power cuts and the problems faced by you and the other residents.

3. a) Your school is organising a charity drive for the Underprivileged children in a slum colony. Write a notice asking the students to donate their old books, notebooks, pens and pencils, clothes, toys etc...

b) Write an e-mail to the Principal of a neighbouring school, requesting him/her to ask their students to participate in this charity drive.

4. Read the following passage carefully and answer the questions that follow :

There were other boys in Manjari village, but Bisnu was the only one who went to school. His mother would not have flussed if he had stayed at home and worked in the fields. That was what other boys did; all except lazy Chitru, who preferred fishing in the stream or helping himself to the fruit of other people's trees. But Bisnu went to school. He went because he wanted to. No one could force him to go; and no one could stop him from going. He had set his heart on receiving a good schooling. He wanted to read and write as well as anyone in the big world and so he walked to school every day.

A colony of langoors lived in the forest. They fed on oak leaves, acorns and other green things, and usually remained in the trees, coming down to the ground only to play or sun themselves. They were beautiful, supple limbed animals, with black faces and silver-grey coats and long, sensitive tails. They leapt from tree to tree with great agility. The young ones wrestled on the grass like boys.

A dignified community, the langoors did not have the cheekiness or the dishonest habits of the red monkeys of the plains; they did not approach dogs or humans. But they had grown used to Bisnu's comings and goings and did not fear him. Some of the older ones would watch him quietly, a little puzzled. They did not go near the town; because the boys threw stones at them. And anyway, the forest gave them all the food they required.

Coming from another direction was another path, and at the junction of the two paths, Sarru was waiting for them. Sarru came from a small village about three miles from Bisnu's and closer to the town.

They hailed each other, and walked along. They often met at this spot, keeping each other's company for the remaining two miles.

"There was a panther in our village last night," said Sarru.

This information interested but did not excite Bisnu. Panthers were common enough in the hills and did not usually present a problem except during winter months, when their natural prey was scarce.

"Did you lose any animals?" asked Bisnu.

"No. It tried to get into the cowshed but the dogs set up the alarm. We drove it off."

"It must be the same one which came around last winter. We lost a calf and two dogs in our village."

"Wasn't that the one the shikaris wounded? I hope it hasn't become a cattle lifter."

"It could be the same. It has a bullet in its leg. These hunters are the people who cause all the trouble. They think it's easy to shoot a panther. It would be better if they missed altogether, but they usually wound it."

"And then the panther is too slow to catch the barking-deer and starts on our own animals."

"We're lucky it didn't become a man-eater. Do you remember the man-eater six years ago? I was very small then."

"My father told me all about it. Ten people were killed in our valley alone."

"What happened to it?"

"I don't know. Some say it poisoned itself when it ate the headman of the village."

Bisnu laughed. No one killed that old villain. They linked arms and scrambled up the stony path to school.

- i) For each word given below, choose the correct meaning (as used in the passage) from the options provided. [2]

1. agility

- a) disappointed b) happiness
c) enthusiasm d) skillfulness

2. hailed

- a) dropped b) met
c) greeted d) dragged

- ii) Which word in the passage means the opposite of the word 'Saint'?

- a) villain b) problem
c) scarce d) man-eater

- iii) Answer the following questions briefly in your own words. [1]

a) How was Chitru different from other boys?

b) What was Bisnu's ambition?

c) What information did Saru give Bisnu?

d) How did the information affect Bisnu?

e) Why did the panther become a cattle lifter?

- iv) In not more than 50 words, describe what the narrator tells us about the behaviour of the langoons. [8]

5. i) Fill in each of the numbered blanks with the correct form of the word given in brackets. Do not copy the passage, but write in the correct serial order, the word or the phrase appropriate to the blank space. [4]

Example:

A woman (0) _____ (wait) at an airport one night, with several long hours before her flight.

Answer: was waiting

She (1) _____ (hunt) for a book in the airport shops,

(2) _____ (buy) a bag of cookies and found a place to sit.

She (3) _____ (engross) in her book but, happened to see that the man sitting beside her, bold as could be, grabbed a cookie or two from the bag in between, which she tried to ignore to avoid a scene. So she (4) _____ (munch) the cookies and watched the clock, as the gusty thief

diminished her stock. She (5) _____ (get) more irritated as the minutes ticked by, thinking, "If I wasn't so nice, I (6) _____ (black) his eye." With each cookie she took, he took one too. When only one was left, she wondered what he would do. With a smile on his face, and a nervous laugh, he (7) _____ (take) the last cookie and broke it in half. He offered her half, as he ate the other. She had never known she could be so angry and turned to gather her belongings. As she reached for her baggage, she gasped with surprise, there was her bag of cookies, in front of her eyes. "If mine are here, "she moaned in despair, "the others were his, and he (8) _____ (try) to share."

ii) Fill in the blanks with an appropriate word :

a) She takes a lot of trouble _____ her work.

b) Our English friends have taken _____ Indian food quite quickly.

c) He got an A _____ the Mathematics test.

d) He jumped _____ the river to save his friend from drowning.

e) Always be prepared _____ a surprise test.

f) She hid _____ the cupboard and gave everyone a fright.

g) She is fond _____ pets.

h) The brothers quarrelled _____ themselves for their father's property.

iii) Join the following sentences to make one complete sentence without using and, but or so. Choose the correct option. [4]

a) We found the bakery. The aroma of freshly baked bread had permeated the air.

1. We found the bakery which the aroma of freshly baked bread had permeated the air.

2. We found the bakery that the aroma of freshly baked bread had permeated the air.

3. We found the bakery where the aroma of freshly baked bread had permeated the air.

4. We found the bakery whose the aroma of freshly baked bread had permeated the air.

- b) This restaurant is very famous. It serves the best pancakes in town.
1. This restaurant is famous when serving the best pancakes in town.
 2. This restaurant is famous while serving the best pancakes in town.
 3. This restaurant is famous since serving the best pancakes in town.
 4. This restaurant is famous for serving the best pancakes in town.
- c) She put her car in reverse gear, She checked the rear-view mirror all the time.
1. She put her car in reverse gear while checking the rear-view mirror all the time.
 2. She put her car in reverse gear when checking the rear-view mirror all the time.
 3. She put her car in reverse gear until checking the rear-view mirror all the time.
 4. She put her car in reverse gear to check the rear-view mirror all the time.
- d) He made an omelet. He toasted an entire loaf of bread.
1. He made an omelet as toasted an entire loaf of bread.
 2. He had made an omelet as well as toasted an entire loaf of bread.
 3. Besides making an omelet, he toasted an entire loaf of bread.
 4. As making an omelet, he toasted an entire loaf of bread.
- iv) Rewrite the following sentences according to the instructions given after each. Make other changes that may be necessary, but do not change the meaning of each sentence. Choose the correct options.
- a) "I didn't like this place yesterday because it was not clean," said Mrs. Sethi. (Use: Reported speech)

[8]

1. Mrs. Sethi said that she had not liked that place the day before because it had not been clean.
 2. Mrs. Sethi said that she was not liked that place the day before because it had not been clean.
 3. Mrs. Sethi said that she has not liked that place the day before because it had not been clean.
 4. Mrs. Sethi said that she would not liked that place the day before because it had not been clean.
- b) He added orange zest to the batter before putting the tin into the oven. (Begin : Orange zest _____)
1. Orange zest is added by him to the batter before putting the tin into the oven.
 2. Orange zest had added by him to the batter before putting the tin into the oven.
 3. Orange zest was added by him to the batter before putting the tin into the oven.
 4. Orange zest be added by him to the batter before putting the tin into the oven.
- c) Swimming and running a marathon need great stamina. (Use: as well as)
1. Swimming with running a marathon needs great stamina.
 2. Swimming to running a marathon needs great stamina.
 3. Swimming into running a marathon needs great stamina.
 4. Swimming as well as running a marathon needs great stamina.
- d) As soon as I opened my lunch box, my friends gathered around me. (Begin: No sooner _____)
1. No sooner did I open my lunch box than my friends gathered around me.
 2. No sooner did I open my lunch box than my friends gather around me.
 3. No sooner did I open my lunch box than my friends would gather around me.
 4. No sooner did I open my lunch box than my friends will gather around me.0

- e) You forgot my birthday, didn't you?
(Use: remember)
1. You did remember my birthday, did you?
 2. You did remember my birthday, don't you?
 3. You didn't remember my birthday, do you?
 4. You didn't remember my birthday, did you?
- f) I had taken a lot of care in the laboratory yesterday, and the experiment was conducted perfectly.
(Begin: If I had not ____)
1. If [have not taken a lot of care in the laboratory yesterday, the experiment would not have been conducted perfectly.
 2. If I had not taken a lot of care in the laboratory yesterday, the experiment would not have been conducted perfectly.
 3. If I had not taken a lot of care in the laboratory yesterday, the experiment did not have been conducted perfectly.
 4. If I have not taken a lot of care in the laboratory yesterday, the experiment did not have been conducted perfectly.
- g) Very few parks in our city are as big as this.
(Use: biggest)
1. This is the biggest park in our city.
 2. This has one of the biggest park in our city.
 3. This is one of the biggest parks in our city.
 4. This have been one of the biggest park in our city.
- h) She is so hungry that she cannot wait for food to be served. (Use : too ___ to)
1. She is too hungry to wait for food to be served.
 2. She is too hungry wait for food to be served.
 3. Too hungry she is to wait for food to be served.
 4. Too hungry is she to wait for food to be served.

Time : 2 Hrs.

Commercial Applications

M.M. : 100

Note : You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. Attempt all questions from Section A and any four questions from Section B. The intended marks for questions or parts of questions are given in brackets [].

Section - A

[40 Marks]

(Answer all questions)

1. Choose the correct answers to the questions from the given options :

[20]

(Do not copy the question. Write correct answer only)

i) An entrepreneur faces financial losses due to a natural disaster that damages their inventory.

Which auxiliary to trade could have mitigated this loss?

- a) Transportation b) Warehousing
- c) Insurance d) Banking

ii) Identify the type of industry shown in the given image.



- a) Extractive Industry b) Genetic Industry
- c) Analytical Industry d) Synthetical Industry

iii) The ownership where individuals supplies the total capital from his own wealth or from borrowed funds is :

- a) Sole proprietorship
- b) Joint Hindu Family Business
- c) General partnership
- d) None of these

iv) There are two statements given below, marked as Assertion (A) and Reason (R). Read the statements and choose the correct option.

Assertion (A) : A sole proprietorship is a business structure that is easy to start and dissolve.

Reason (R) : It requires minimal legal formalities and is suitable for small-scale businesses.

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

v) A Joint Hindu Family Business is formed under the principles of :

- a) The companies Act
- b) The partnership Act
- c) The Hindu succession Act
- d) The cooperative societies Act

vi) The Sharma Family runs a successful spice business that has been operating for generations. Customers trust their products because of the business's long-standing reputation. Which advantage of Joint Hindu Family Business is illustrated in this case?

- a) Incentive to work hard
- b) Ancestral Goodwill
- c) Ease of formation
- d) Quick decisions

vii) What is the minimum number of members required to form a private limited company?

- a) 2
- b) 7
- c) 50
- d) 100

viii) Which of the following is considered as an 'artificial person' in the eyes of the law?

- a) Sole proprietor
- b) Partnership firm
- c) Joint stock company
- d) Hindu Joint Family

ix) The Reserve Bank of India operates under a special law enacted by the Parliament. under which category does this organization fall?

- a) Chartered company
- b) Statutory company
- c) Registered company
- d) Unlimited company

x) The capital of a company is divided into small units called:

- a) Debentures
- b) Bonds
- c) Shares
- d) Loans

xi) Who is the ultimate owners of a Joint stock Company?

- a) Directors
- b) Creditors
- c) Employees
- d) Shareholders

xii) The Indian Cooperative Society's Act tells cooperative organization is "a society which has its objective for the promotion of economic interests of its members in accordance with co-operative principles." The Co-operative principles are :

- a) self-help, equality, democracy and freedom
- b) Self-profit, honesty, health of persons
- c) social harmony, ideal society, well-education
- d) None of these

xiii) A group of young professionals working in a city faces difficulty in finding affordable housing. Which type of cooperative society should they form to address this issue?

- a) Industrial cooperative
- b) Housing cooperative
- c) Consumer cooperative
- d) Credit cooperative

- xiv) In a cooperative society, the principle of "one man, one vote" ensures :
- Equal representation of all members
 - Majority rule
 - Control by a few wealthy members
 - Influence of external investors
- xv) Public sector organization may either be partly or wholly owned by the _____ government.
- State
 - Central
 - Central or state
 - Foreign
- xvi) A government company is a company in which _____ of the paid up share is held by the Central Government.
- Not less than 30%
 - Not less than 51%
 - Not less than 71%
 - Not less than 50%
- xvii) Soil is formed by the decomposition of rocks and minerals. Which is called :
- Weathering
 - Solination
 - Rocking
 - None of these
- xviii) Natural resources are :
- in unlimited quantity
 - in limited quantity
 - unevenly distributed across the world
 - both (b) and (c)
- xix) Conservation of natural resources includes :
- Preservation
 - Maintenance
 - ^{sustainable} Stainable utilization of natural resources
 - All of these
- xx) Industrial pollution accelerated rapidly due to :
- White revolution
 - Green revolution
 - Industrial revolution
 - None of these

Answer the following questions : [10]

- i) Distinguish between (any one point)
 - a) Economic activities and non-economic activities.
 - b) Extractive Industry and Genetic Industry.
- ii) Justify either for or against the statement giving a reason :
 - a) "Partnership overcome the shortcomings of sole proprietorship."
 - b) "A sole proprietor enjoys maximum business secrecy."
 - c) "A Joint Stock Company can raise a huge amount of capital."

3. Answer the following questions : [10]

- i) Write a short note on entrepot trade.
- ii) What are the consequences of non-registration of a partnership?
- iii) What do you mean by depletion of resources?
- iv) Mention any two objectives cooperative societies?
- v) Explain the meaning of Departmental undertakings.

Section - B

[60 Marks]

Answer any four questions from this section.

4. a) Distinguish between partnership and joint stock company. [5]
- b) Ravi run a small grocery store where he is responsible for all the decisions, profits and losses. What are the advantages and challenges he might face as a sole proprietor? [5]
- c) Explain various features of Joint Hindu Family Business. [5]
5. a) What is a partnership deed? State its contents. [5]
- b) Explain the causes for the popularity of Joint Stock Company form of business organization. [5]
- c) What do you understand by cooperative societies? Explain four features of it? [5]

6. a) How do forests help to prevent drought and floods? [5]
b) How soil and water pollution is caused due to agricultural development? [5]
c) What is the meaning of recycling? Explain any four benefits of recycling. [5]
7. a) Explain the various features of Business. [5]
b) Briefly explain any five branches of commerce. [5]
c) Distinguish between Public sector and private sector enterprises. [5]

8. Write short notes on :

- a) Multinational company [5]
b) Chartered company [5]
c) Global warming [5]

9. **Case Study**

Riya and Priya, two friends passionate about fashion, decided to start a boutique. Riya has excellent designing skills, while Priya is good at marketing and sales. They invested equally and agreed to share profits and losses equally. They named their business "Style Sisters."

- a) What type of business organization have Riya and Priya started? Explain any three features of this type business organization. [5]
b) What are the advantages of this organization for them, considering their skills and investment? [5]
c) What potential challenges/disadvantages might they face in this type of business organization. [5]

Unit Test : III - 2025-26

Class - IX

PHYSICS

M.M. : 20

Time : 35 Min.

Note : All questions are compulsory.

1. State three factors on which the pressure at a point in a liquid depends. [2]
2. How does the pressure exerted by a solid and a fluid differ? [2]
3. Why does a fountain pen leak at a high altitude? [2]
4. Calculate the pressure exerted by 10.3 m of a vertical length of water column. [2]
5. A solid object of mass 5kg floats in a liquid. Calculate the buoyant force acting on the body. [2]
6. A solid weighs 50 gf in air and 44 gf when completely immersed in water. Calculate : [2]
 - i) The up thrust,
 - ii) The relative density of the solid.
7. The relative density of mercury is 13.6. State its density in C.G.S and S.I. unit. [2]
8. a) The area of base of a cylindrical vessel is 300 cm^2 . Water (density = 1000 kg m^{-3}) is poured into it up to a depth of 6 cm. Calculate : [3]
 - i) The pressure.
 - ii) The thrust of water on the base. ($g = 10 \text{ ms}^{-2}$)
9. In a hydraulic machine, a force of 2 N is applied on the piston of area of cross section 10 cm^2 . What force is obtained on its piston of area of cross section 100 cm^2 ? [3]

Unit Test : III - 2025-26

Class - IX

Time : 35 Min.

BIOLOGY

M.M. : 20

1. **Name the following :** [5]
 - a) Finger like projections present on inner lining of small intestine.
 - b) Wave of contractions to push Food forward in food canal.
 - c) Type of teeth well developed in herbivores.
 - d) Disease caused due to deficiency of iodine.
 - e) One insoluble polysaccharide.
2. **Differentiate between the following by writing one main point :** [6]
 - a) Monosaccharides and disaccharide
 - b) Kwashiorkor and Marasmus
 - c) Malnutrition and Undernutrition
3. **Write exact location of the following :** [3]
 - a) Parotid salivary gland
 - b) Vermiform appendix
 - c) Pyloric sphincter
4. **Draw a neat labelled diagram of a villus.** [2]
5. **Answer the following :** [4]
 - a) What are Vestigeal organs? Give example.
 - b) Bile juice does not have enzymes, but it is important for digestion of food. Why?

□□□

Unit Test : III - 2025-26

Class - IX

Time : 35 Min. COMPUTER SCIENCE

M.M. : 20

[1×5=5]

1. Multiple choice questions :

- i) What is the output of `Math.abs(-5)`?
a) -5 b) 5 c) 0 d) error
- ii) Which method returns the largest integer less than or equal to the given number?
a) `Math.ceil()` b) `Math.floor()`
c) `Math.round()` d) `Math.trunc()`
- iii) What is the output of `Math.max(10,20)`?
a) 10 b) 20 c) error d) NaN
- iv) Which loop is guaranteed to execute at least once.
a) for loop b) while loop
c) do-while loop d) none
- v) Assertion : A for loop can be used when the number of iteration is known.

Reason : The for loop requires a fixed number of iterations to be specified.

- a) Both Assertion and Reason are true, and Reason is the correct explanation of Assertion.
b) Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
c) Assertion is true, but Reason is false.
d) Both Assertion and Reason are false.

2. Predict the output :

[2½×2=5]

a)

```
for(int i=0; i<5 ; i++)  
{  
    System.out.println(i+" ");  
}
```

b) How many times the following loop will execute?

```
for(int i=1; i<=10;i+=2)  
{  
    System.out.println(i);  
}
```

3. Write a Java Program to calculate the sum of all even numbers from 1 to 100 using a while loop with variable description, Input/Output, and comments.

[10]

□□□

Unit Test : III - 2025-26

Class - IX

Time : 35 Min.

CHEMISTRY

M.M. : 20

NOTE : Attempt all the questions.

1. Answer the following :

[4]

- What is the classification in which elements are grouped in a group of three known as?
- What are the elements of group 17 called?
- Molecules of water of crystallization present in Glauber's salt.
- A group of atoms of elements that behaves like a single unit and shows a valency.

2. Fill in the blanks : do not copy the questions, write the correct answers only

[4]

- Newland arranged elements in increasing order of their (i) show resemblance in physical and chemical properties between (ii) element and the first element.
- Alkali metals are strong (iii) agents. They are electron (iv) and have one valence electron in the outer shell, which can be easily removed.

3. Give reasons for the following :

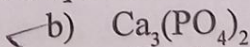
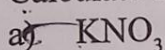
[4]

- Noble gas do not form compounds readily.
- Silver exhibits the valency of +1 and +2
- Periodicity in the properties of elements after definite intervals of atomic number.
- Mendeleeff left some gaps in the periodic table.

4. Numericals :

[4]

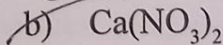
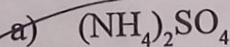
Calculate the percentage composition of



[At. wts. are K = 39, N = 14, O = 16, Ca = 40, P = 31]

5. Calculate the molecular weight of the following :

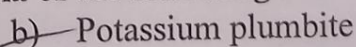
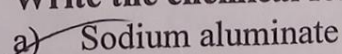
[2]



[At. wts. are S = 32, N = 14, O = 16, Ca = 40, H = 1]

6. Write the chemical formula of the following :

[2]



Unit Test : III - 2025-26

Class - IX

Time : 35 Min.

ENGLISH - II

M.M. : 20

1. **Read the extract given below and answer the questions that follow :**

Brutus

O, name him not: let us not break with him;
For he will never follow any thing
That other men begin.

Cassius

Then leave him out.

Casca

Indeed he is not fit.

Decius

Shall no man else be touch'd but only Caesar?

- i) Who is 'him'? What did Brutus want to leave him out of? What reason had just been given in his favour? [3]
- ii) Brutus overrides Cassius. Why? What does it reveal about Brutus? [3]
- iii) In his turn, Cassius does not agree with Brutus' ideas. State the objection put forth by Cassius and tell how his objection was later justified. [4]
2. **Read the extract given below and answer the questions that follow :**

...My blood gushed out.

The artery in my neck? Scared for my life,

I called out, panic-stricken, to my wife.

Pale, bloodstained, frightened, Yecko-san emerged,

Holding her elbow.

- i) What made the blood gush out? Why was the narrator panic-stricken? [3]
- ii) Describe the object they found on the street. What was the reaction of the narrator after finding the object? [3]
- iii) By giving two examples, state how an atmosphere of fear was created by the explosion in the minds of the narrator and his wife. [4]

Unit Test : III - 2025-26

Class - IX

Time : 35 Min.

MATHEMATICS

M.M. : 20

1. Statement 1 : Logarithmic value of 64 to the base 4 i.e $\log_4 64$ is 3
Statement 2 : $\log_a 1 = 1, a \neq 1$
Which of the following is valid?
a) Both the statements are true
b) Both statements are false.
c) Statement 1 is true and statement 2 is false
d) Statement 1 is false and statement 2 is true [1]
2. The perimeter of an isosceles triangle is 32 cm and the base is 12 cm. one of its equal sides forms the diagonal of a parallelogram. Find the area of the parallelogram [3]
3. Express $\log 4.5 + \log \frac{25}{50}$ in terms of $\log 2$ and $\log 3$. [4]
4. Evaluate: $(3 \times 27^{n+1} + 9 \times 3^{3n-1}) \div (8 \times 3^{3n} - 5 \times 27^n)$ [4]
5. Simplify : $32\frac{4}{5} + \left(\frac{1}{81}\right)^{-3} - \left(\frac{1}{125}\right)^{-2} - 6^0 \cdot 16^{\frac{3}{2}}$ [4]
6. Draw a rectangle ABCD with base 4cm and diagonal $BD = 5$ cm. Measure CB. Take any point P on AD. Join BP. From C draw a line parallel to BP to meet AP produced at Q. Prove that the area of the rectangle ABCD is equal to that of the figure PBCQ. [4]

9355

Unit Test : III - 2025-26

Class - IX

Time : 35 Min. ENGLISH LANGUAGE M.M. : 20

1. You have recently shifted to a new house. Write a letter to your friend describing the house. [10] M. : 20
2. Fill in each of the numbered blanks with the correct form of the word given in brackets. Do not copy the passage but write in correct serial order the word or phrase appropriate to the blank space. [6] le

Example Rikki-tikki _____ (0) (know) better than to waste time in staring. [4]

Answer (0) knew

Rikki-tikki was angry. He sat back on his tail and hind legs, and (1) _____ (look) all round him, (2) _____ (chatter) with rage. But Nag and Nagina (3) _____ (disappear) already into the grass. When a snake misses its stroke, it never (4) _____ (say) anything or (5) _____ (give) any sign of what it means to do next. Rikki-tikki did not care to follow them, for he did not (6) _____ (feel) sure that he (7) _____ (can) manage two snakes at once. So, he trotted off to the gravel path, and sat down to think. It (8) _____ (is) a serious matter for him.

3. Rewrite the sentences according to the instructions given after each sentence. Choose the correct option : [6]
- i) As soon as Mathew reached the school, the bell rang. (Begin with: No sooner...)
- a) No sooner did Mathew reached the school when the bell rang.
- b) No sooner does Mathew reach the school that the bell rang.
- c) No sooner did Mathew reach the school than the bell rang.
- d) No sooner did Mathew reach the school then the bell rang.

~~Mathew reached the school when the bell rang.~~

- ii) "Will you help me carry the books?" the teacher asked me. (Begin with: The teacher asked me ...)
- The teacher told me to help her carry the books.
 - The teacher told me to carry the books.
 - The teacher asked me for carrying the books.
 - The teacher asked me if I would help her carry the books.
- iii) You love school. (End with a question tag)
- You love school, do you?
 - You love school, don't you?
 - Do you love school?
 - You love school, isn't it?
- iv) He succeeded in his efforts to win the competition. (Begin with: His efforts to win the competition.....)
- His efforts to win the competition were successful.
 - His efforts to win the competition were met with succeeded
 - His efforts to win the competition were a grand success
 - His efforts to win the competition are succeeding.
- v) He is not a singer. He is not a dancer. (Use: 'neither')
- He is neither a singer nor a dancer.
 - He is neither a singer nor is he a dancer.
 - He is neither a singer or a dancer.
 - He is neither a singer nor dancer.
- vi) The shelf is so high that I cannot reach it. (Use: 'too' in place of 'so')
- This shelf is too high that I cannot reach it.
 - This shelf is too high for me to reach.
 - This shelf is too high to reach me.
 - This shelf is too much high to reach.

1. Multiple - Choice Questions :

[6]

- i) Which of the following refers to a group of people holding similar views or beliefs?
- Government
 - Political Party
 - Election Commission
 - Candidate
- ii) Who appoints the Election Commissioners?
- President of India
 - Prime Minister of India
 - Chief Justice of India
 - Act of Parliament
- iii) Constituency : Returning Officer :: _____ : Presiding Officers
- Polling booths
 - Counting centres
 - Both (a) and (b)
 - None of the above
- iv) During the President's rule the Legislative Assembly may either be _____ or suspended.
- abolished
 - dissolved
 - created
 - renewed
- v) Who certifies whether a Bill is Money Bill or not?
- The Speaker of the Legislative Assembly
 - The Governor of the State
 - The Chief Minister of the State
 - The Finance Minister of the State
- vi) The minimum age to be Member of the Legislative Council is _____ years.
- 18
 - 20
 - 25
 - 30

2. Short Answer Questions :

- i) What is a Unicameral Legislature ? What is a Bicameral Legislature? [2]
- ii) What are the Qualifications for being a member of Legislative Assembly? [2]

3. Structure Questions :

- i) With reference to Democracy and Elections, answer the following questions:
 - a) Distinguish between two types of Elections. [3]
 - b) What is Known as General Elections? [3]
 - c) State any four functions of Election Commission. [4]

□□□

Unit Test : III - 2025-26

Class - IX

Time : 35 Min.

GEOGRAPHY

M.M. : 20

1. What is Ozone Hole ? When was it first detected? [2]
2. Explain two causes of Global warming. [2]
3. Name the layer of the atmosphere according to the characteristics given below : [3]
 - a) Temperature reaches a minimum of -110°C .
 - b) Temperature decreases with height.
 - c) Layer contains electrically charged particles.
4. Why is difficult to breathe when we climb up on mountains? [2]
5. Give one word for each : [2]
 - i) The upper limit of Stratosphere.
 - ii) The upper limit of Troposphere.
6. Mention two differences in between Insolation and Terrestrial radiation. [2]
7. Explain, why coastal areas enjoy a moderate climate. [2]
8. Give reason : [2]
 - a) The ports of western coast of Europe remain ice free throughout the year.
 - b) Higher the altitude lower is the Temperature.
9. Draw a well labeled diagram to show how temperature is affected by altitude. [3]

□□□

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Unit Test : III - 2025-26

Class - IX

Time : 35 Min.

HINDI

M.M. : 20

1. निम्नलिखित प्रश्नों के उत्तर दीजिये : (12)

- क) नेताजी की मूर्ति कहां स्थित थी? मूर्ति की क्या-क्या विशेषताएं थीं और उसमें किस चीज की कमी थी?
- ख) सेनानी न होने के बाद भी चश्मे वाले को लोग कैप्टन क्यों कहते थे? स्पष्ट कीजिए।
- ग) 'जग को दया दिखाई, जग को दिया दिखाया' से कवि का आशय स्पष्ट करते हुए बताइए कि किसने भारत भूमि पर जन्म लेकर भारत का सुयश किस प्रकार बढ़ाया?

2) निर्देशानुसार उत्तर दीजिये- (8)

- क) 'आचार' शब्द का विलोम शब्द है-
- अ) दुराचार ब) प्रचार
- ख) 'उत्तम' का पर्यायवाची शब्द है-
- अ) उपयुक्त ब) श्रेष्ठ
- ग) 'भारत' का विशेषण शब्द है-
- अ) भारतीय ब) भारतवर्ष
- घ) 'अमृत' का पर्यायवाची शब्द है
- अ) शुद्ध-पावन ब) सोम-सुधा
- ङ) 'कलई खुलना' मुहावरे का अर्थ है
- अ) भेद खुलना ब) मूर्ख व्यक्ति
- च) 'उन्नीस बीस का अंतर' मुहावरे का अर्थ है-
- अ) बहुत कम अंतर होना ब) जमीन-आसमान का अंतर होना
- छ) शुद्ध शब्द का चयन कीजिए-
- अ) मिठाइयां ब) मीठाइयां
- ज) निर्देशानुसार उचित वाक्य का चयन कीजिए-
- रमेश ईश्वर में विश्वास रखता है।
(रेखांकित की जगह एक शब्द का प्रयोग कीजिए)
- अ) रमेश आस्तिक है। ब) रमेश नास्तिक है।

□□□

~~संगमबर~~ संगमबर

Unit Test : III - 2025-26

Class - IX

Time : 35 Min. Commercial Applications M.M. : 20

1. Name the departments in which the following functions are performed : [6]
- a) Evaluating performance of employees.
 - b) Dealing with tax cases .
 - c) Research and development.
 - d) Raising loans from Bank .
 - e) Supplier relations.
 - f) Controlling inventory.
2. Answer the following : [10]
- a) Explain the functions of Purchase Department .
 - b) Write the functions of Marketing and Sales Department.
3. Answer in short : [4]
- a) What is placement?
 - b) Write two need of Departmentation..

Unit Test - IV : 2025-26

Class - IX

Time : 35 Min.

HINDI

M.M. : 20

1. निम्नलिखित प्रश्नों के उत्तर दीजिये : (12)

- क) मेघों के आगमन पर बूढ़े पीपल ने क्या प्रतिक्रिया की? पीपल के लिए 'बूढ़े' शब्द का प्रयोग क्यों किया गया है?
- ख) कोहरे की सफेदी में लेखक को क्या दिखाई पड़ा? उसका परिचय दीजिए।
- ग) क्या लेखक और उनके मित्र पहाड़ी बालक की सहायता कर पाए? यदि नहीं, तो क्यों?

2. निर्देशानुसार उत्तर दीजिये : (8)

- क) 'मूक' शब्द का विलोम शब्द है-
- अ) वाचाल ब) गुंगा
- ख) उत्तम का पर्यायवाची शब्द है-
- अ) श्रेष्ठ ब) सुंदर
- ग) ओज'का विशेषण शब्द है-
- अ) ओजता ब) ओजस्वी
- घ) अमी' का तत्सम शब्द है-
- अ) अग्नि ब) अमृत
- ङ) 'गाल बजाना' मुहावरे का अर्थ है-
- अ) अत्यधिक बोलना ब) डींगे मारना
- च) 'समान' शब्द की भाववाचक संज्ञा है-
- अ) समानता ब) सम्मान
- छ) अनेक शब्दों के लिए एक शब्द बताइये -
'जिसकी अत्यधिक चर्चा हुई हो'
- अ) अचर्चित ब) बहुचर्चित
- ज) शुद्ध शब्द का चयन कीजिए-
- अ) बुद्धिमती ब) बुद्धिमति

Unit Test - IV : 2025-26

Class - IX

Time : 35 Min. HISTORY AND CIVICS

M.M. : 20

1. Choose the correct answer to the questions from the given options : [1×6=6]

i) Who among the following was not involved in the construction of the Qutab Minar?

- a) Alauddin Khilji b) Qutbuddin Aibak
c) Iltutmish d) Feroz Shah Tughlaq

ii) The Red Fort complex does not house :

- a) Diwan-i-Aam b) Buland Darwaja
c) Diwan-i-Khas d) Moti Masjid

iii) Complete the following analogy

Shuhra-i-am public work department :: Subha : _____

- a) Subahdar b) Provinces
c) Sarkars d) parganas

iv) The Ain-i-Akbari written by Abul Fazal is divided into _____ books :

- a) three b) five
c) two d) seven

v) Name the oldest European Church in India.

- a) St. Francis Church
b) St. Vasco Church
c) St. Francisco Church
d) St. Anglico Church

vi) Which language was originally known as "Zaban-e-Hindvi"?

- a) Hindi b) Urdu
c) Sanskrit d) Persian

2. Short Answer Questions :

[2×7=14]

i) Mention two doctrines of Sufism.

ii) Who were mansabdars? How were they paid?

iii) Who invited Babar to India? Why?

- iv) Mention any two military reforms introduced by Alauddin Khilji.
- v) Mention the two controversial steps taken by Mohammad Bin Tughlaq.
- vi) List two social reforms that were introduced by Akbar.
- vii) What steps were taken by Alauddin Khilji to regulate prices?

□□□

Unit Test - IV : 2025-26

Class - IX

Time : 35 Min.

GEOGRAPHY

M.M. : 20

1. Mention the name of four Pollutants responsible for Air Pollution. [2]
2. Define the following terms : [6]
 - a) Biodegradable Pollutants
 - b) Quantitative Pollutants
 - c) Man-made Radiation
3. Distinguish between : [4]
 - a) Primary Pollutants and Secondary pollutants
 - b) Gaseous air Pollutants and Particulate air Pollutants
4. Give geographical reason for the following : [4]
 - a) Eutrophication
 - b) Soil Pollution
5. On an outline map of world, mark any two of the following : [4]
 - a) Mountains – Caucasus and Rockies
 - b) Plateaus – African Rift valley, Tibetan Plateau
 - c) Tropical Grasslands and Temperate Grasslands

□□□

Unit Test - IV : 2025-26

Class - IX

Time : 35 Min. ENGLISH LANGUAGE

M.M. : 20

1. Fill in each of the numbered blanks with the correct form of the word given in brackets. Do not copy the passage but write in correct serial order the word or phrase appropriate to the blank space.

Example :

One day we (0) _____ (lift) the box up. [4]

Answer : (0) **lifted**

We (1) _____ (find) a dead mouse (2) _____ (lie) among our treasures. It (3) _____ (be) an exciting discovery. A boy took it up by its tail and (4) _____ (wave) it in front of our faces. "What shall we do with it?" he (5) _____ (cry). "It stinks!" someone (6) _____ (shout). "Throw it out of the window quick!" He (7) _____ (hesitate). They all (8) _____ (look) at me.

2. Fill in the blanks with an appropriate words. [4]

- i) My best friend, John is named _____ his grandfather.
- ii) A grey mist hung _____ the fields.
- iii) The little girl spoke _____ against the bully.
- iv) They accused him _____ theft.
- v) The police got the fire _____ control.
- vi) There is a bridge _____ the river.
- vii) The driver jumped _____ the car
- viii) I have not seen my uncle _____ last summer.

3. Choose the correct option to make one complete sentence without using and, but or so. [4]

- i) These are fresh mangoes. I bought them yesterday.
 - a) These are fresh mangoes which I bought yesterday.
 - b) These mangoes were fresher when I bought them yesterday.
 - c) These are fresh mangoes which were bought yesterday.
 - d) These are fresh mangoes brought by me yesterday.

- ii) The debating teams were very happy. They were declared joint champions.
- a) The debating teams were very happy as they have been declared joint champions
 - b) The debating teams are very happy as they are declared joint champions.
 - c) The debating teams were very happy as they had been declared joint champions.
 - d) The debating teams will be very happy as they will be declared joint champions
- iii) The rain came down. All the people ran away.
- a) When the rain came down, all the people ran away.
 - b) When it rained, the people ran away
 - c) The rain had come down all the people ran away.
 - d) When the rain having come, all the people ran away
- iv) The disciple was wise. The teacher did not trust him.
- a) Although the disciple was wise yet the teacher trusted him.
 - b) Although the disciple was not wise the teacher trusted him.
 - c) Although the disciple is wise, the teacher trusted him.
 - d) Although the disciple was wise, the teacher did not trust him.

4. Choose the correct option and rewrite the sentence according to the instruction given after each.

[8]

- i) The teacher said, "Come early tomorrow, the examination begins at eight o'clock."

(Begin: The teacher told us to _____)

- a) The teacher told us to come early the next day as the examination would begin at eight o'clock.
- b) The teacher told us to come early tomorrow as the examination begins at eight o'clock
- c) The teacher told us the examination will begin at eight o'clock so come early tomorrow.
- d) The teacher told us to come by eight o'clock as the examination will begin early the next day.

ii) Rahul not only plays the guitar but also the drums.

(Use: 'as well as')

- a) Rahul plays the guitar as well as the drums.
- b) Rahul plays the guitar as well the drums.
- c) Rahul plays the guitar as well as he does the drums.
- d) Rahul play's the guitar and the drums as well.

iii) She said she would not be available.

(Add a question tag)

- a) Didn't she say that she would not be available?
- b) She said she would not be available, did she?
- c) She said she would not be available, didn't she?
- d) She said she would not be available, wouldn't she?

iv) This is the most beautiful painting in the exhibition.

(Begin: No other _____)

- a) No other painting is as beautiful as this exhibition.
- b) No other painting in this exhibition is beautiful.
- c) No other painting is beautiful as this painting in the exhibition.
- d) No other painting in the exhibition is as beautiful as this one.

v) I prefer aerobics to yoga.

(Use: 'rather')

- a) I would rather do aerobics to yoga
- b) I would rather do aerobics than yoga
- c) I would rather prefer aerobics than yoga
- d) I would rather do yoga than aerobics

vi) The coach taught the children' the rules of the game.

(Begin: The rules _____)

- a) The rules have being taught by the coach to the children.
- b) The rules of the game have been taught by the children to the coach.
- c) The rules of the game is taught by the coach to the children.
- d) The rules of the game were taught by the coach to the children.

vii) No sooner did the film star arrive than the crowd cheered.
(Begin: As soon as _____)

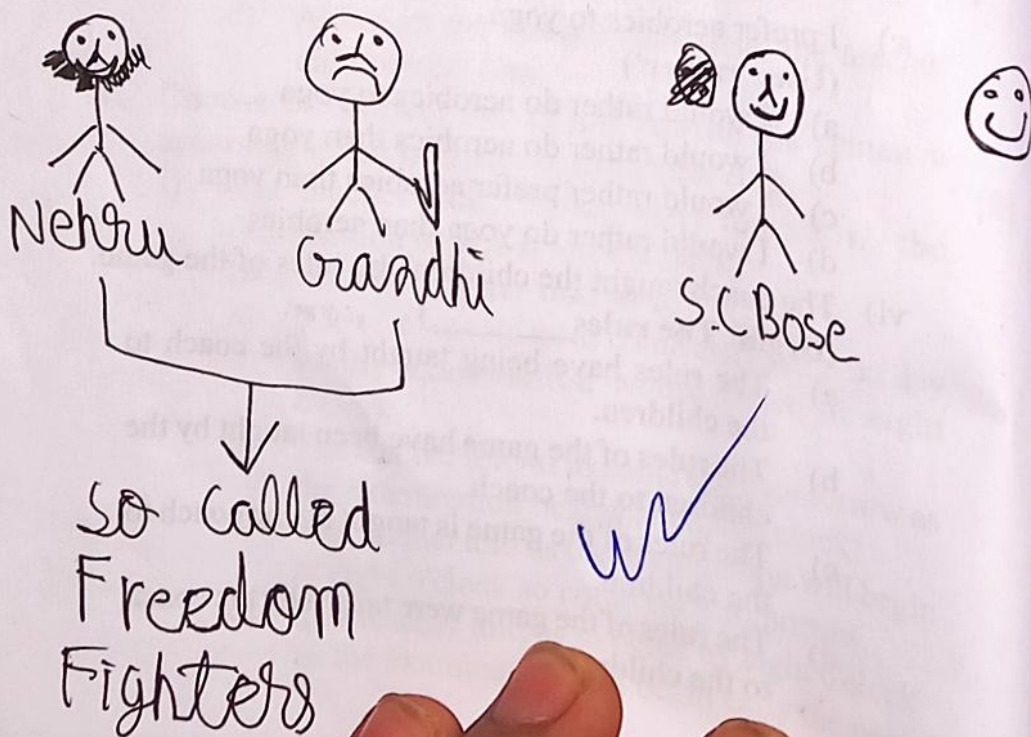
- As soon as the film star arrived then the crowd cheered.
- As soon as the film star arrives the crowd starts cheering.
- As soon as the crowd cheers the film star arrives.
- As soon as the film star arrived the crowd cheered.

viii) School bags are often too heavy for students to carry.

(Use: 'so')

- School bags are so heavy students cannot carry them.
- School bags are often so heavy that students cannot carry them.
- School bags are often so heavy for students to carry.
- School bags are heavy so students cannot carry them.

□□□



Unit Test - IV : 2025-26

Class - IX

PHYSICS

Time : 35 Min.

M.M. : 20

Note: All questions are compulsory.

1. When starter motor of a car is switched on for 0.8 s, a charge 24 C passes through the coil of the motor. Calculate the current in the coil. [2]
2. State two differences between primary and secondary cells. [2]
3. Calculate the current flowing through a wire of resistance 7.5Ω connected to a battery of potential difference 1.5V. [2]
4. How is the resistance of a wire affected if its : [2]
 - a) Length is doubled
 - b) Radius is doubled
5. A conductor carries a current of 0.2 A : [4]
 - a) Find the amount of charge that will pass through the cross section of conductor in 30 s.
 - b) How many electrons will flow in this time interval. (Use the charge on one electron).
6. What is carbon tax? Who will pay it ? [2]
7. Draw a graph to show the variation in density of water with temperature in the temperature range from 0°C to 10°C . [2]
8. Explain the following : [4]
 - a) Fishes survive in ponds even when the atmospheric temperature is below 0°C .
 - b) The energy transfer in an ecosystem is not 100% efficient. Why?

Unit Test - IV : 2025-26

Class - IX

BIOLOGY

Time : 35 Min.

M.M. : 20

1. Name the part of Skeleton where the following are found : [4]
 - a) Glenoid cavity
 - b) Neural canal
 - c) Sternum
 - d) Tarsals

2. Distinguish between the following by writing one main point : [8]

Albinism

 - a) ~~Leucoderma~~ and vitiligo
 - b) Hibernation and aestivation
 - c) Vasodilation and Vasoconstriction
 - d) Breathing and cellular respiration

3. Name the body structure concerned with the given function : [4]
 - a) Prevents food from entering the trachea
 - b) Protects lungs from mechanical injury
 - c) Acts like an umbrella to protect inner Parts of the body
 - d) Increases volume of chest cavity lengthwise.

4. Write function of the following : [4]
 - a) Alveoli —
 - b) C shaped cartilage rings
 - c) Intervertebral disc
 - d) Ceruminous gland

□□□

Unit Test - IV : 2025-26

Class - IX

Time : 35 Min. Computer Application

M.M. : 20

Attempt all the following questions :

[4×5=20]

1. State one difference and one similarity between while and do- while loop.

2. Analyze the following program segment and determine how many times the body of the loop will be executed (show the working)

```
int x = 5, y = 50;
```

```
while (x <= y)
```

```
{
```

```
y = y / x;
```

```
System.out.println(y);
```

```
}
```

3. Write a program in Java to print the following pattern

1

3 5

5 7 9

7 9 11 13

9 11 13 15 17

4. Differentiate between break and continue.

5. Analyse the given program segment and answer the following questions :

```
for (i = 3; i <= 4; i++)
```

```
{
```

```
for (j = 2; j < i; j++)
```

```
{
```

```
System.out.print("");
```

```
}
```

```
System.out.println("WIN");
```

```
}
```

a) How many times does the inner loop execute?

b) Write the output of the program segment.

Unit Test - IV : 2025-26

Class - IX

Time : 35 Min.

CHEMISTRY

M.M. : 20

NOTE: Attempt all the questions.

1. Answer the following : [4]
- Name an element which reacts violently with water at room temperature.
 - A gaseous reducing agent which is basic in nature.
 - A covalent molecule having two lone pair of electrons.
 - Two atoms of same elements having same number of protons and electrons but different number of neutrons.
2. Fill in the blanks : do not copy the questions, write the correct answers only : [4]
- An atom with electronic configuration 2,7 & mass number 19 will have _____ Neutrons.
 - In covalent compounds, the bond is formed due to _____ of electrons.
 - Lead reacts with dilute sulphuric acid to form an insoluble coating of _____.
 - The maximum number of electrons in M shell is _____.
3. Give balanced equations for the following conversions : [4]
- Sodium zincate from zinc
 - Sodium plumbite from lead
 - Sodium aluminate from aluminium
 - Potassium zincate from zinc
4. Give reasons for the following : [4]
- Nitric acid in the dilute form is not used in the laboratory preparation of hydrogen from metals.
 - Granulated zinc is preferred to metallic zinc in the preparation of hydrogen using dilute acids.
 - Hydrogen is not prepared in the laboratory by the action of sodium with cold water.
 - Hydrogen gas is not collected over air.
5. Draw the atomic orbit structure for the following : [4]
- | | |
|-------------------|--------------------|
| a) CCl_4 | b) CaO |
| c) NH_3 | d) MgCl_2 |

Unit Test - IV : 2025-26

Class - IX

Time : 35 Min.

ENGLISH-II

M.M. : 20

1. Read the extract given below and answer the questions that follow : Artemidorus

There is but one mind in all these men,
and it is bent against Caesar. If thou
best not immortal, look about you:
security gives way to conspiracy.

- i) Where is Artemidorus at this time? What is he engaged in? [3]
- ii) Explain "security gives way to conspiracy." [3]
- iii) What does this scene reveal about the conspirators, the nature of the conspiracy and Caesar? Why is this scene important?

2. Read the extract given below and answer the questions that follow :

The widowed mother readily agreed. When his uncle asked Phatik if he would like to go to Calcutta with him, his joy knew no bounds, and he said; "Oh, yes, uncle!" In a way that made it quite clear that he meant it.

It was an immense relief to the mother to get rid of Phatik.

- i) Why did Phatik's mother agree to send Phatik to Calcutta? [3]
- ii) Why was Phatik excited to go to Calcutta? Explain 'that he meant it.' [3]
- iii) Do you think Phatik's mother's decision to send Phatik to Calcutta was correct? Why? [4]

Note : You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. Attempt all five questions. The intended marks for the questions or parts of questions are given in brackets (). You are advised to spend not more than 35 minutes in answering the question 1 and 20 minutes in answering question 2. (Do not spend more than 35 minutes on this question)

1. Write a composition (300–350 words) on any one of the following : [20]

- i) For the first time in your life, you went to a circus along with your friends. Describe your visit and your experience.
- ii) You were forced to travel alone by train to your aunt's place in another city. Narrate your experience of travelling alone.
- iii) 'It should be compulsory for all the students in a school to participate in games.' Express your views for or against the statement.
- iv) Write an original short story having the following theme : "Life is like an echo: we get back what we give."
- v) Study the picture given below. Write a story or description or an account of what the picture suggests to you. Your composition may be directly about the subject of the picture or may take suggestions from it, but there must be some clear connection between the picture and the composition.



2. (Do not spend more than 20 minutes in this question.)

Select ONE of the following :

[10]

i) Write a letter to your sister telling her about the picnic you had with your classmates.

ii) Write a letter to the Editor of a daily newspaper showing your concern for the absence of a sports stadium in your area.

3. i) Your school is organizing an Inter-school Math Wizard Exam. Write a notice to be put in your school informing the students about the event and inviting them to participate.

[5]

ii) Write an E-mail to the Principal of a neighbouring school requesting him/her to send the names of the students who wish to participate in the Math Wizard Exam.

[5]

4. Read the extract given below and answer the questions that follow :

Dr. James entered the room, and bowed slightly to a young lady standing by the side of a bed. There lay a man as still as the dead. Dr. James examined him and turned to the lady with questioning eyes.

"I am Mrs. Chandler," she responded. "My husband was taken suddenly ill about ten minutes before you came. He has had attacks of heart trouble before- some of them were very bad." Saying this, the lady fell, white and swooning, into the arms of an old woman. She was carried to her room, and laid on the bed. She passed from the swoon, into a profound slumber.

The physician returned to the man on the bed; his eyes were open. His lips seemed to form words. Dr. James bent his head to listen. "The money! the twenty thousand dollars." And the man closed his eyes again.

There arose in Dr. James's brain and heart the instincts of his other profession. He decided to learn the whereabouts of this money. Going to the door of the inner room, he softly called the old woman, gave her

the prescription, and bade her take it to some drug store and fetch the medicine.

"Where - should the money be?" mused the physician, looking about the room. Suddenly, he perceived a small iron safe, half-concealed by the trailing end of a window curtain. He stepped there swiftly with his medicine case which actually contained an elegant set of the latest conceived tools used by an ingenious safe burglar. Underneath the tools was a mass of crumpled banknotes amounting to eight hundred and thirty dollars a sum the physician had obtained after breaking an old-style safe a few hours ago.

Dr. James examined the safe. With his clamps he drew the knob, punched the tumblers and opened the door in two minutes. The interior of the safe was bare- not even a scrap of paper rested within the hollow iron cube.

Dr. James walked back to the bed. There was a mocking, grim smile on the lips of the dying man. He had been watching the physician at work. "Medicine and burglary wedded! I never saw it before," he said, painfully. Suddenly, a deep blush suffused the man's face- the respiration ceased, and, with scarcely a tremor, he expired. Closely following upon his last breath came the old woman bringing the medicine. Dr. James told her of the end.

"Dear now! It is in the Lord's hands. The Madam paid out the last bit of money for this bottle of medicine, and it never came to any use."

"Do I understand," asked Dr. James, "that Mrs. Chandler has no money?"

"Money, sir? Why, the Madam had twenty thousand dollars. Mr. Chandler played it at the races and lost every cent of it. There is nothing to eat in this house but some crumbly crackers in three days."

Some ten minutes later, Mrs. Chandler entered. Dr. James pointed to the safe with its still wide-open door

and spoke kindly and briefly, "Your husband, Mrs. Chandler, toward the end, felt that he could not live; and directed me open that safe, giving me the number upon which the combination is set. In that safe he said he had placed a sum of money- not large. The money is there on the table- as he it- eight hundred and thirty dollars."

i) For each word given below choose the correct meaning (as used in the passage) from the option provided : [2]

1) swooning

a) crying

b) fainting

c) falling

d) dying

2) profound

a) deep

b) confusing

c) hard

d) majestic

ii) Which word in the passage means the opposite of the word 'deprived'? [1]

a) ceased

b) suffused

c) expired

d) played

iii) Answer the following questions briefly in your own words :

a) What made Mrs. Chandler swoon? [2]

b) What was Dr. James other profession? State evidence to show that Dr. James had come prepared for his 'other profession'. [2]

c) What precaution did Dr. James take to ensure that nobody could see what he was going to do? [1]

d) State the evidence to show that Dr. James had done some of his other business recently. [2]

e) What kindness did Dr. James show to Mrs. Chandler? What explanation did he give for his kindness? [2]

iv) Describe how was Dr. James both a medical doctor as well as a cautious burglar, Answer in not more than fifty words. [8]

5. i) In the following passage, fill in each of the numbered blanks with the correct form of the word given in brackets. Do not copy the passage, but write in correct serial order the word or phrase appropriate to the blank space. Example missing (0) [4]

A matchstick is a wooden stick that contains a coat of phosphorus mixture at one end. This mixture is __ 1 __ (ignite) by striking the matchstick against the rough surface of the matchbox __ 2 __ (produce) a flame. Matchsticks __ 3 __ (originate) around 3500 BCE. The Egyptians developed a small, pinewood stick that __ 4 __ (coat) with a combustible __ 5 __ (mix) of sulphur. In 1827, the "friction" matchsticks that we use even today were __ 6 __ (invent) by an English chemist named John Walker. The match head had a mixture of antimony sulphid, potassium chlorate, starch and gum. In 1844, "safety" matches were invented by a Swedish man __ 7 __ (call) Gustaf Erik Pasch and were improved by John Edvard Lundstrom a decade later. These matchsticks ignited only when they were __ 8 __ (strike) cholesterol.

- ii) Fill in the blanks with most appropriate words : [4]

- a) She has no taste _____ fine arts.
 b) Sahil carried _____ several prizes.
 c) He is negligent _____ his duty.
 d) The police was enquiring _____ the case.
 e) She was deaf _____ his request.
 f) There is a bridge _____ the river.
 g) The players are supposed to abide _____ the rules of the game.
 h) The bus is running _____ time.

- iii) Join the following sentences to make one complete sentence without using and, but or so. Choose the correct option : [4]

- 1) She is very weak. She cannot go for a walk.
- a) She is too weak to go for a walk.
 - b) She is very weak for going for a walk.
 - c) She cannot go for a walk for being very weak.
 - d) She is not weak enough to go for a walk.
- 2) The man stole our money. He has been arrested.
- a) The man has been arrested for he stole our money.
 - b) The man who stole our money has been arrested.
 - c) The man has been arrested when he stole our money.
 - d) The man who has been arrested is steal our money.
- 3) He saw me coming. He immediately took to his heels.
- a) He saw me coming to he immediately took to his heels.
 - b) Seeing me he immediately take to heels.
 - c) He immediately took to his heels when I was coming.
 - d) As soon as he saw me coming, he took to his heels.
- 4) He is very old. He enjoys good health.
- a) Although he is very old, he enjoys good health.
 - b) Being very old, he enjoys good health.
 - c) He is too old to enjoy good health.
 - d) He enjoys good health after being very old.

iv) Choose the correct option to rewrite the following according to the instructions given after each sentence :

- 1) To squander away your money is very disappointing.
(Begin : It...)

- a) It is very disappointing to squander away your money.
 - b) It is very disappointment to squander at your money.
 - c) It is disappointment for you to squander your money.
 - d) It is disappointing for you to squander your money.
- 2) If you do not keep quiet, you will be punished.
(Begin : Unless...)
- a) Unless keep quiet, you will be punished.
 - b) Unless you keep quiet, you will be punished.
 - c) Unless you do not keep quiet, you will be punished.
 - d) Unless you keep quiet, you will not be punished.
- 3) As soon as the parents arrive, the programme begins.
(Begin : No sooner...)
- a) No sooner the parents arrive, the programme begins.
 - b) No sooner do the parents arrive than the programme begins.
 - c) No sooner does the parents arrive than the programme begins.
 - d) No sooner has the parents arrive, the programme begins.
- 4) "I will help you if I can," he promised me.
(Begin: He promised me that...)
- a) He promised me that he will help to me if he can.
 - b) He promised me that he shall help me if he could.
 - c) He promised me that he would help me if he could.
 - d) He promised me that he should help to me if he could.

- 5) Though she played well, she did not get any prize.
(Begin : In spite of ...)
- a) In spite of her playing well, she did not get any prize.
 - b) In spite of playing well, she did not get any prize.
 - c) In spite of playing well, she does not get any prize.
 - d) In spite of not playing well, she does not get any prize.
- 6) I get up earlier than she does
(Begin with : She does...)
- a) She does get up earlier than I do.
 - b) She does not get up as early as I do.
 - c) She does not get up the earliest.
 - d) She does get up as early as I do.
- 7) The police broke the lock.
(Begin : The lock...)
- a) The lock is broken by the police.
 - b) The lock was broken by the police.
 - c) The lock has been broken by the police.
 - d) The lock was to be broken by the police.
- 8) He is not only a good orator, but also an excellent actor.
(Begin : Besides being...)
- a) Besides being an orator, he is also an actor.
 - b) Besides being a good orator, he is therefore an excellent actor.
 - c) Besides being a good orator, he is an excellent actor.
 - d) Besides being the good orator , he was also the excellent actor

Class - IX

Time : 2 Hrs.

GEOGRAPHY

M.M. : 80

Note : You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. PART-I is compulsory. All the questions from Part-I are to be attempted. A total of five questions are to be attempted from Part-II.

Part - I (Compulsory)

[30]

Attempt all the questions from this part.

1. Answer the following questions :

[10]

i) State the dates of equinoxes, along with it's name. [2]

ii) In which part of the earth NIFE found? What is it composed of? [2]

iii) What is condensation? Name four chief forms of condensation. [2]

iv) State any two measures to save energy. [2]

v) What are xerophytic plants? [2]

2. On the outline world map mark and label the following :

[10]

i) Andes Mountain [1]

ii) River Murray and Darling [1]

iii) Tibet Plateau [1]

iv) River Tigris [1]

v) Strait of Malacca [1]

vi) Hudson Bay [1]

vii) Black Sea [1]

viii) Appalachian Mountain [1]

ix) River Ob [1]

x) Shade and label the Monsoon Region in the continent of Asia. [1]

3. Choose the correct answers to the questions from the given options. (Do not copy the questions, write the correct answers only) : [10]

i) World Standard Time : 0° :: Indian Standard Time : _____ [1]

a) $23\frac{1}{2}^{\circ}$ N

b) $66\frac{1}{2}^{\circ}$ E

c) $72\frac{1}{2}^{\circ}$ E

d) $82\frac{1}{2}^{\circ}$ E

ii) What life sustaining unit contains only one percent of earth's mass? [1]

a) Biosphere

b) Core

c) Crust

d) Mantle

iii) _____ are also known as thermal spring. [1]

a) Hot springs

b) Geysers

c) Volcano

d) Caldera

iv) The large-scale movement of loose material (rock-waste) down the slope on account of gravity is _____ [1]

a) Mass movement

b) Deposition

c) Denudation

d) Weathering

v) Assertion (A) : Gulf Stream flows in a clockwise direction.

Reason (R) : In the northern hemisphere currents flow in a clockwise direction. [1]

a) Both are true and R is correct explanation of A.

b) Both are true and R does not explain A.

c) A is true but R is false.

d) A is false but R is true.

vi) Which amongst the following is not a direct impact of global warming? [1]

a) Precipitation change

b) Radiation Balance

c) Rising sea level

d) Diseases

- vii) The steady winds blowing from the Sub-tropical High Pressure towards the Equatorial Low Pressure : [1]
 a) High pressure winds
 b) Low pressure winds
 c) Trade winds
 d) Westerlies winds
- viii) Which amongst the following is not one of the factors favoring evaporation? [1]
 a) Humidity b) Supply of heat
 c) Winds d) Precipitation
- ix) The sharing of car journeys by the people travelling on the same route to save money and fuel. [1]
 a) Car sharing b) Shared car
 c) Carpooling d) Pooling-car
- x) Steppes : Eurasia :: Prairies : _____ [1]
 a) Savannas b) North America
 c) South America d) Mediterranean region

Part - II

[50]

Attempt any five questions from this part.

4. i) Name the two hemispheres of the earth made by the equator. Name the thermal zones of the earth. [2]
 ii) State the difference between twilight and dawn. [2]
 iii) Give the reason for the following : [3]
 a) The Greenwich Time is called the Greenwich Mean Time.
 b) The earth is not a perfect sphere.
 c) In New Zealand Christmas is celebrated in Summers.
- iv) Draw a neat and well labelled diagram of the 'Inclination of the Earth's axis.' [3]
5. i) What would happen if the earth's core no longer remains hot and the magma cools and hardens inside the earth? Give reasons to support your answer. [2]
 ii) Give a brief definition of two different types of Plateau with an example. [2]

iii) Distinguish between the following : (one point each) [3]

- a) Thermal and Dynamic Metamorphism
- b) Sills and Dykes
- c) SIAL and SIMA

iv) Draw a neat and well labelled diagram to show 'The formation of a Block Mountain'. [3]

6. i) What is the magma chamber of a volcano? State the products erupted by a volcano. [2]

ii) Weathering is a natural process but human activity can speed it up. Do you agree with this statement? Give reason to support your answer. [2]

iii) State / define : [3]

- a) Richter Scale
- b) Epicenter
- c) Caldera

iv) What are barchans? Name any two characteristics of barchans. [3]

7. i) You are watching the sea waves from the balcony of a seaside resort in Mumbai on a new moon day. Suddenly you noticed rise of sea water and its movement towards the coast. What was this wave and after how much time will it be repeated? [2]

ii) What happens when warm and cold currents meet? [2]

iii) Give geographical reason for the following : [3]

- a) The tidal range differs from one water bodies to other.
- b) The coast of Norway is not frozen in winters.
- c) There is heavy rainfall in Queensland but the Atacama Desert is arid.

iv) Draw a neat and well labelled diagram of 'Low Tides'. (Quadrature or Neap Tide) [3]

8. i) State how altitude affects the temperature of a place. [2]

ii) What would be the effect of ozone layer depletion?

What are the natural causes of ozone layer depletion? [2]

- iii) Give geographical reason for the following : [3]
- We find it difficult to breathe when we climb mountains.
 - North India has greater range of temperature than South India.
 - All the weather phenomena takes place in the troposphere.
- iv) Draw a neat and well labelled diagram of 'Vertical rays are hotter than slanting rays'. [3]
9. i) What are two chief characteristics of anticyclones? [2]
- ii) What are local winds? Name any two local winds. [2]
- iii) Give geographical reason for the following : [3]
- There is seasonal shifting of pressure belt.
 - Humid air is lighter than dry air.
 - Doldrums is a low pressure belt.
- iv) State / Define : [3]
- Altitude
 - Winds
 - Coriolis force
10. i) How is Relative Humidity determined? [2]
- ii) List two places which receive two types of rainfall. Give reason to support your answer. [2]
- iii) State / Define : [3]
- Condensation Nuclei
 - Evaporation
 - Precipitation
- iv) Draw a neat and labeled diagram of Orographic Rainfall. [3]
11. i) Mention any two sources of soil pollution. [2]
- ii) Northern India is enveloped in smog in the month of November. List the causes for the same. [2]
- iii) Why is 'Organic Farming' so called? State why organic farming is gaining popularity in recent times. [3]
- iv) a) Name any two legal provision meant to deter smoking. [3]

- b) How does smoking harm passive smokers?
12. i) How are Temperate grasslands different from Tropical Savanna? [2]
- ii) State the location of Equatorial Region. Name the two dominant types of vegetation of the Equatorial region. [2]
- iii) Give geographical reason for the following : [3]
- a) In the Tropical Desert climatic region, Trade Winds are dry.
- b) The Taiga region is sparsely populated.
- c) The Savannas are called the 'natural cattle country'.
- iv) State the location of Tropical deserts. Name the two primitive tribes which inhabit the Tropical Deserts. Name the tropical desert located in south Africa. [3]



- vii) A body is projected vertically upward with an initial velocity u . If acceleration due to gravity is g , the time for which it remains in air, is :
- a) $\frac{u}{g}$ b) $\frac{2u}{g}$ c) ug d) $\frac{u}{2g}$
- viii) The atmospheric pressure at earth surface is P_1 and inside a mine is P_2 . They are related as :
- a) $P_1 = P_2$ b) $P_1 > P_2$
c) $P_1 < P_2$ d) $P_2 = 0$
- ix) A body will experience minimum of thrust when it is completely emerged in :
- a) turpentine b) water
c) glycerine d) Mercury
- x) The unit of relative density is :
- a) gcm b) kgm
c) m/sc d) no unit
- xi) **Assertion (A)** : Maximum density of water is at 4°C .
Reason (R) : Water contracts when it is heated from 0°C to 4°C .
- a) both A and R are true and R is the correct explanation of A
b) both A and R are true and R is not the correct explanation of A
c) assertion is false and reason is true
d) assertion is true but reason is false.
- xii) The image formed by a plane mirror is :
- a) erect and diminished
b) erect and enlarged
c) inverted and of same size
d) erect and of same size
- xiii) The speed of sound in air is at 0°C is nearly :
- a) 1450 ms^{-1} b) 450 mm^{-2}
c) 5100 ms^{-1} d) 330 ms^{-1}
- xiv) The insulator of electricity is :
- a) Copper b) Acidulated water
c) Human body d) Silk

[Section - II] **[40 Marks]**
(Attempt any four questions)

4. i) Derive equation of motion $S=ut+\frac{1}{2}at^2$ using velocity-time graph. [3]
- ii) a) When the body is said to be in motion?
 b) Differentiate between uniform acceleration and variable acceleration. [3]
- iii) When the screw gauge of least count 0.01 mm is used to measure the diameter of a wire the reading on the sleeve is found to be 1 mm and the reading on the thimble is found to be 27 divisions.
 a) What is the diameter of wire in cm?
 b) If the zero error is + 0.005 cm. What is the correct diameter? [4]
5. i) Two bodies A and B of same mass are moving with velocity is v and $2v$ respectively. Compare their : [3]
 a) inertia.
 b) momentum.
- ii) a) What is ultrasound?
 b) State the approximate speed of ultrasound in air.
 c) State two use of ultrasound that make it useful to us. [3]
- iii) The following table represents the velocity of a moving body at different instants of time :

Time (s)	0	5	10	15	20	25	30
Velocity (ms^{-1})	10	15	20	20	30	15	0

Draw the velocity-time graph and answer the following:

- a) For which interval of time the body has a uniform motion? Find the velocity in this time interval?
- b) For which interval of time the body has the accelerated motion? Calculate the acceleration.

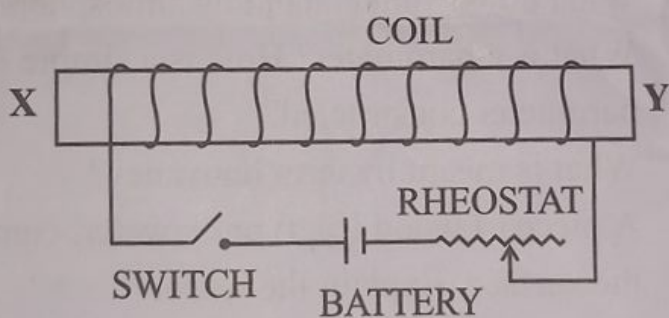
- c) For which interval of time, the body has retardation? Calculate the retardation. [4]
6. i) a) State Newton's law of gravitation.
 b) Write down the average value of g on the earth surface.
 c) How are g and G related? [3]
- ii) Deduce expression for the pressure at a depth inside a liquid. [3]
- iii) a) The diameter of neck and bottom of a bottle are 2 cm and 10 cm respectively. The bottle is completely filled with oil. If the cork in the neck is pressed in with a force of 1.2 kgf, what force is exerted on the bottom of the bottle?
 b) Name the law/principle you have used to find the force in part (a). [4]
7. i) a) What do you understand by atmospheric pressure?
 b) What is a barometer? How is a simple barometer constructed? [3]
- ii) a) What is meant by term buoyancy?
 b) A piece of wood if left underwater, comes to the surface. Explain the reason. [3]
- iii) Two spheres A and B, each of volume 100 cm^3 are placed on water (density = 1.0 g cm^{-3}) The sphere A is made of wood of density 0.3 g cm^{-3} and the sphere B is made of iron of density 8.9 g cm^{-3} .
 a) Find : the weight of each sphere, and the upthrust on each sphere.
 b) Which sphere will float? Give reason. [4]
8. i) Explain the following with the help of diagram : [3]
 a) incident ray
 b) reflected ray
 c) angle of reflection

ii) State three factors on which the resistance of a wire depends. Explain how the resistance depends on the factors stated by you. [3]

iii) a) 'The resistance of wire is 1 ohm'. Explain the meaning of this statement.
 b) A bulb draws current 1.5A at 6.0V. Find the resistance of the filament of bulb while glowing. [4]

9. i) a) State two ways to save energy.
 b) Give an example to explain that the use of modern eco-friendly technology is more efficient and less polluting. [3]

ii) Fig. below shows a coil wound around a soft iron bar XY. (a) State the polarity at the ends X and Y as the switch is pressed. (b) Suggest one way of increasing the strength of the electromagnet so formed.



iii) a) Draw the pattern of magnetic field lines near a bar magnet placed with its north pole pointing towards the geographic north. Indicate the position of neutral points by marking x.
 b) State whether the magnetic field lines in part (a) represent a uniform magnetic field or non-uniform magnetic field? [4]

Class - IX

Time : 3 Hrs.

MATHEMATICS

M.M. : 80

Note : Answers to this Paper must be written on the paper provided separately. You will not be allowed to write during first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this Paper is the time allowed for writing the answers. Attempt all questions from Section - A and any four questions from Section - B. All working, including rough work, must be clearly shown, and must be done on the same sheet as the rest of the answer. Omission of essential working will result in loss of marks. The intended marks for questions or parts of questions are given in brackets [].

SECTION - A

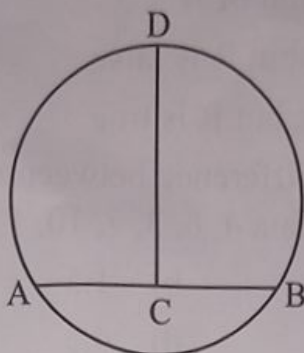
(Attempt all questions from this Section.)

1. Choose the correct answer to the questions from the given option :

[15]

- i) $(-2 - \sqrt{3})(-2 + \sqrt{3})$ when simplified is :
- a) positive and irrational
 - b) positive and rational
 - c) negative and irrational
 - d) negative and rational
- ii) If $a + b = 12$ and $a^2 - b^2 = 96$, then what is the value of a ?
- a) 2
 - b) 4
 - c) 8
 - d) 10
- iii) If $2^{x-1} + 2^{x+1} = 320$, then x equals to :
- a) 4
 - b) 7
 - c) 5
 - d) 6
- iv) Which of the following is equivalent to $16^{-\frac{1}{2}}$:
- a) -8
 - b) $\frac{1}{4}$
 - c) -4
 - d) $\frac{1}{8}$
- v) Which ordered pair is a solution of system $2x - y = -2$ and $\frac{1}{3}y = x$:
- a) (2, 6)
 - b) (0, 2)
 - c) (1, 3)
 - d) (3, 8)

- ii) In the given figure CD is the perpendicular bisector of the chord AB. If $AB = 2$ cm and $CD = 4$ cm, calculate the radius of the circle. [4]



- iii) A solid cube of side 12 cm is cut into eight cubes of equal volume. What will be the side of the new cube? Also, find the ratio between their surface areas. [5]

SECTION - B

(Attempt any four questions from this section)

4. i) Solve the following equation : $11^{3-4x} = \left(\sqrt{\frac{1}{121}}\right)^{-2}$ [3]

- ii) ABC is a right-angled triangle. $\angle ABC = 90^\circ$, $AC = 25$ cm and $AB = 24$ cm. Calculate the area of a ΔABC . [3]

- iii) If $x^3 + y^3 + z^3 = 3xyz$ and $x + y + z = 0$,

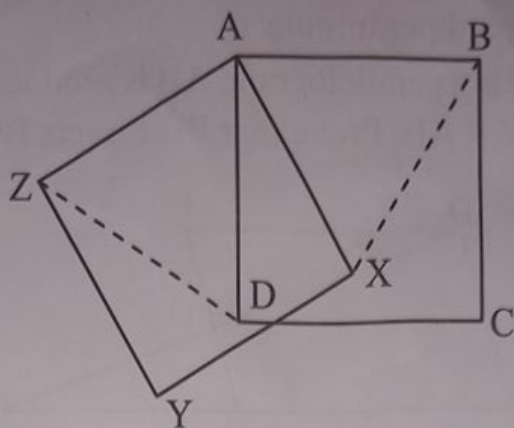
find the value of $\frac{(x+y)^2}{xy} + \frac{(y+z)^2}{yz} + \frac{(z+x)^2}{zx}$ [4]

5. i) If $x = \log \frac{4}{5}$, $y = \log \frac{3}{5}$ and $z = 2 \log \frac{\sqrt{3}}{2}$, Find : [3]

- a) $x - y + z$
b) $4x - y + z$

- ii) If the points $(2, 1)$ and $(1, -2)$ are equidistance from the point (x, y) , show that $x + 3y = 0$. [3]

- iii) In the given figure X is any point within a square ABCD. On AX a square AXYZ is described. Prove that $BX = DZ$. [4]

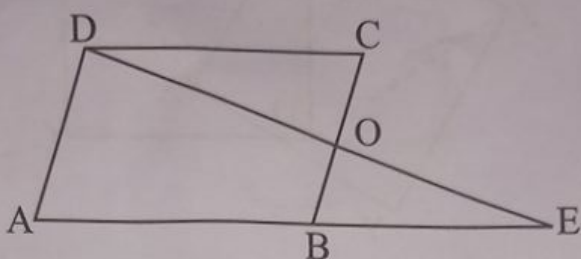


6. i) In a circle of radius 5 cm, AB and CD are two parallel chords of length 8 cm and 6 cm respectively. Calculate the distance between the chords, if they are on the same side of the centre. [3]
- ii) If the numbers 4, 8, 9, 10, x, 16, 20, 22, 26, 29 are in ascending order and their median is 14, find the value of x. [3]
- iii) Factorise the following : [4]
- a) $32 - 2(x - y)^2$
- b) $8a^3b - 10a^2b^2 - 12ab^3$
7. i) Prove that : [3]

$$\frac{1}{1+x^{b-a}+x^{c-a}} + \frac{1}{1+x^{a-b}+x^{c-b}} + \frac{1}{1+x^{b-c}+x^{a-c}} = 1$$

- ii) A circular field has a perimeter of 650 m. A plot, in the shape of a square having its vertices on the circumference of the field, is marked in the field. Calculate the area of the square plot. (Take $\pi = \frac{22}{7}$) [3]
- iii) A point T is taken on the side PQ of the parallelogram PQRS, and the line ST and RQ are produced to meet at V. Prove that the triangles VSQ and VTR are equal in area. [4]

8. i) The cross-section area of a pipe is 42cm^2 , water is pouring out of it at the rate of 1.25m per sec. If the pipe remains full, find the number of litres discharged per minute. [3]
- ii) ABCD is a parallelogram. AB is produced to E such that $BE = AB$. Prove that ED bisects BC. [3]



- iii) Find the value of the following : [4]
- a) $2\sin^2 30^\circ - 3\cos^2 45^\circ + \tan^2 60^\circ$
- b) $\tan 35^\circ \tan 40^\circ \tan 45^\circ \tan 50^\circ \tan 55^\circ$

9. i) What sum will become ₹ 4913 in $1\frac{1}{2}$ years if the rate of interest is $12\frac{1}{2}\%$ compounded half-yearly? [3]

- ii) Find the area of a rhombus whose diagonals are 12 cm and 16 cm. Also find its perimeter. [3]

- iii) Represent the following data on a graph by frequency polygon : [4]

Class	0-10	10-20	20-30	30-40	40-50
Frequency	3	7	6	2	5

10. i) If $x = \sqrt{2} + 1$, find the value of $x^2 + \frac{1}{x^2}$. [3]

- ii) The adjacent sides of a parallelogram are 35 cm and 25 cm in length. If the distance between the longer sides is 10 cm, find the distance between the shorter sides. [3]

- iii) Solve graphically the system : [4]
- $3x - y - 2 = 0$ and $2x + y - 8 = 0$

Class - IX

Time : 2 Hrs.

CHEMISTRY

M.M. : 80

Note : Answers to this paper must be written on the paper provided separately. You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. Section A is compulsory. Attempt any four questions from section B. The intended marks for questions or parts of questions are given in brackets [].

Section - A

[40 Marks]

1. Choose the correct answers to the question from the given options. (Do not copy the questions, write the correct answers only)

[15]

i) Two elements P and Q have valencies 2 and 3 respectively. The correct formula of the compound formed by the combination of P and Q will be :

- a) PQ b) P_3Q_2
c) P_2Q_3 d) P_3Q

ii) $Zn + CuSO_4 \rightarrow ZnSO_4 + Cu$. The given reaction represents the :

- a) Displacement reaction
b) Precipitation reaction
c) Double decomposition reaction
d) Photochemical reaction

iii) A substance with a monovalent negative radical which causes temporary hardness in water :

- a) Calcium chloride
b) Calcium bicarbonate
c) Calcium sulphate
d) Calcium carbonate

iv) Assertion (A) : Isotopes of an element have similar chemical properties.

Reason (R) : Isotopes of an element have same atomic number.

xi) Ferrous sulphate on reacting with sodium hydroxide forms sodium sulphate and ferrous hydroxide. Which of the following correctly represents the type of chemical reaction involved?

- i) Displacement reaction
 - ii) Double decomposition reaction
 - iii) Precipitation reaction
 - iv) Combination reaction
- a) (i) only b) (ii) only
c) (iii) only d) (ii) and (iii)

xii) Properties of elements are periodic functions of their atomic numbers. This concept was given by :

- a) Dobereiner b) Mendeleev
- c) Moseley d) Newland

xiii) Number of lone pair of electrons present in an ammonia molecule :

- a) 1 b) 2
- c) 3 d) 0

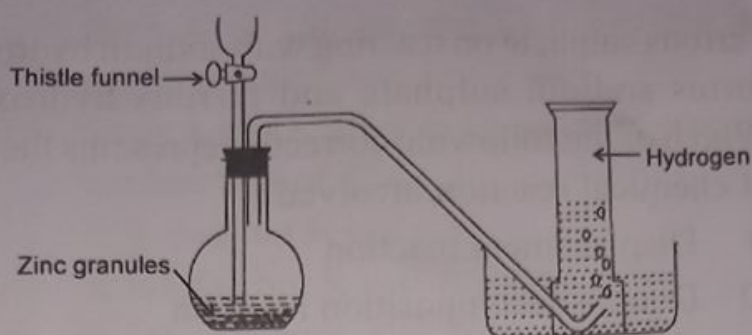
xiv) The elements A, B, C, D and E have atomic numbers 9, 11, 17, 12 and 13 respectively. Which pair of elements belong to the same group?

- a) A and B b) B and D
- c) A and C d) D and E

xv) A hygroscopic substance which is used as a drying agent as well as a dehydrating agent :

- a) Fused calcium chloride
- b) Concentrated sulphuric acid
- c) Quicklime
- d) Silica gel

2. i) The setup shown below is that of the apparatus used to obtain hydrogen gas in the laboratory. Study the given diagram and answer the following questions: [5]



- Name the reactant added through the thistle funnel.
 - Write the chemical equation for the above preparation of hydrogen gas.
 - Why the lower end of the thistle funnel should dip below the level of the acid in the flask?
 - ~~Name the~~ Why gaseous impurities are produced during the laboratory preparation of hydrogen gas?
 - Name a solution which absorbs the impurity- hydrogen sulphide.
- ii) State the terms of the following : [5]
- Reaction between acid and base to form salt and water.
 - A nonmetal in group 17 of the periodic table, which is a solid at ordinary temperature.
 - A lead salt which evolves reddish brown fumes on thermal decomposition.
 - The law which states that the product of the volume and pressure of a given mass of dry gas is constant, temperature remaining constant.
 - A gaseous covalent molecule formed from two different elements, having four single covalent bonds.
- iii) Complete the following sentences by choosing the correct word from the brackets : [5]
- The neutral gas evolved when silver nitrate undergoes thermal decomposition is _____.
(nitrogen dioxide/oxygen)

- b) Water is said to be _____ when it does not lather with soap easily. (soft/hard)
- c) Noble gases have _____ electronic configuration. (stable/unstable)
- d) The removal of hydrogen from a substance is known as _____. (oxidation/reduction)
- e) The compound _____ is responsible for ozone layer depletion. (CFC/methanol)
- iv) Match the column A with column B : [5]
- | Column A | Column B |
|---------------|---------------------------|
| a) Group 1 | i) Halogens |
| b) Group 3-12 | ii) Alkaline earth metals |
| c) Group 18 | iii) Noble gases |
| d) Group 17 | iv) Alkali metals |
| e) Group 2 | v) transition elements |
- v) a) Give the chemical formula of the following compounds : [3]
- i) Sodium zincate ii) Magnesium nitride
iii) Barium chlorate
- b) Give the chemical name of the following compounds : [2]
- i) K_2PbO_2 ii) $Fe_2(SO_4)_3$

Section - B

[40 Marks]

(Attempt any four questions)

3. i) Calculate the relative molecular mass of : [2]
- a) $CaCO_3$ b) $Zn(OH)_2$
[Ca=40, Zn=65, C=12, O=16, H = 1]
- ii) Write balanced chemical equations for the following word equations : [2]
- a) Calcium + Water \rightarrow Calcium hydroxide + Hydrogen
- b) Calcium bicarbonate \rightarrow Calcium carbonate + Water + Carbon dioxide

iii) 1 litre of a gas at 10°C is heated till both its volume and pressure are tripled. Find the new temperature. [3]

iv) Elements X, Y, Z have atomic numbers 6, 11, 17 respectively. Which one : [3]

- a) Forms an anion? b) Forms a cation?
c) State the type of bond formed between Y and Z.

4. i) What is greenhouse effect? Name two major gases responsible for it. [2]

ii) Calculate percentage of water of crystallization present in $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$
(Na = 23, S = 32, O = 16, H = 1) [2]

iii) Differentiate between : [3]

- a) Single covalent and double covalent bond
b) Groups and periods
c) Oxidation and reduction

iv) Draw the orbit structure of the following : [3]

- a) Ammonia molecule
b) Nitrogen molecule
c) Sodium chloride

5. i) State the following : [2]

- a) Modern periodic law
b) Charles' law

ii) At a constant temperature, volume of a gas was found to be 400 cm^3 at a pressure of 760 mm of Hg. If the pressure of the gas is increased by 25%, find the new volume. [2]

iii) An element M has two electrons in fourth shell. Mention : [3]

- a) its atomic number
b) its group and period
c) whether it is a metal or nonmetal.

iv) Give balanced equation for obtaining hydrogen from: [3]

- a) boiling water using a divalent metal
b) steam using a trivalent metal
c) steam using a metal and the reaction is reversible

6. i) In the Bosch process - state the conditions and give balanced equations for the conversation of : [2]
- coke to water gas
 - water gas to hydrogen
- ii) Give reasons for the following : [2]
- Acid rain causes nutrient leaching when it falls on the earth.
 - All temperature on the Kelvin scale are in positive figures.
- iii) Give the term for each of the following : [3]
- A chemical reaction which proceeds with absorption of light energy.
 - A substance which loses its water of crystallization on exposure to the atmosphere.
 - Hardness of water which can be removed by boiling.
- iv) Balance the following chemical equations : [3]
- $\text{Al} + \text{H}_2\text{SO}_4 \longrightarrow \text{Al}_2(\text{SO}_4)_3 + \text{H}_2$
 - $\text{C}_3\text{H}_8 + \text{O}_2 \longrightarrow \text{CO}_2 + \text{H}_2\text{O}$
 - $\text{KMnO}_4 \longrightarrow \text{K}_2\text{MnO}_4 + \text{MnO}_2 + \text{O}_2$
7. i) Convert the following as indicated : [2]
- 298K to temperature in Celsius
 - 125°C to Kelvin
- ii) Define the following : [2]
- Exothermic reaction
 - Deliquescence
- iii) Give a balanced chemical equation for a direct combination reaction involving : [3]
- Two elements one of which is a neutral gas and the other a yellow non metal

- b) Two elements one of which is a neutral gas and the other a monovalent metal
- c) Two compounds resulting in formation of a weak acid
- iv) Name the following with reference to the elements of first three periods of the periodic table. [3]
- a) The element of Period 2 that has five valence electrons.
- b) The alkali metal present in Period 3.
- c) The element of Group 2, Period 3.
8. i) Which of the following ammonium sulphate or calcium nitrate has a lower percentage of nitrogen. [Ca=40, O=16, S=32, N=14, H = 1] [2]
- ii) What type of bonding is present in the following : [2]
- a) MgO
- b) H₂O
- iii) On heating blue coloured powder of copper (II) nitrate in a test tube copper oxide (black), oxygen gas and a brown gas X is formed. [3]
- a) Write a balanced chemical equation for the reaction.
- b) Identify the brown gas X evolved.
- c) Identify the type of reaction.
- iv) What do you observe when : [3]
- a) ferric chloride and sodium hydroxide solutions are mixed together.
- b) ammonium dichromate is heated.
- c) hydrated copper sulphate is heated.

Class - IX

Time : 2 Hr.

HISTORY & CIVICS

M.M. : 80

- * Answers to this Paper must be written on the paper provided separately.
- * This time is to be spent in reading the question paper.
- * The time given at the head of this paper is the time allowed for writing the answers.
- * Attempt all questions from part I (Compulsory). A total of five questions are to be attempted from part II, two out of three questions from section A and three out of five questions from section B
- * The intended marks for questions or parts of questions are given in brackets [].

PART-I

[30 Marks]

1. Attempt all questions from this part :

[16]

- i) When was the Constitution adopted and passed by the Constituent Assembly?
 - a) 26 November 1949
 - b) 26 January 1950
 - c) 26 December 1949
 - d) 26 January 1949
- ii) Complete the analogy Right to Equality: Article 14 – 18 :: _____ : Article 19–22
 - a) Right against Exploitation
 - b) Right to Constitutional remedy
 - c) Right to Freedom of Religion
 - d) Right to Freedom
- iii) Seven years old Rita is not given admission in a school run by a State government. Which of her fundamental right was violated by the state?
 - a) Right to Freedom
 - b) Right against Exploitation
 - c) Cultural and Educational Right
 - d) Right to Education

- iv) Indirect Elections are held to elect members of :
- Lok Sabha
 - Rajya Sabha
 - Vidhan Parishad
 - Both (b) and (c)
- v) What is the tenure of members of the Legislative Council?
- 6 years
 - 5 years
 - 4 years
 - 2 years.
- vi) During President's Rule, the Legislative Assembly may either be _____ or suspended :
- abolished
 - dissolved
 - created
 - renewed
- vii) (A) Alauddin Khilji was the first ruler who laid the foundation of a permanent standing army.
(B) He also started the system of chehra that is giving a kind of identity card.
- (B) contradicts (A)
 - (B) is the reason for (A)
 - (A) is true but (B) is false
 - (A) and (B) are independent of each other
- viii) Which of the following means "Three Baskets" of Buddhist canon? .
- Jataka
 - Tripitaka
 - Angas
 - Dwadashangi
- ix) How are Megaliths or Memorial Stones a source of information?
- Information about religious believes
 - Information about tools and implements
 - Information about life of people
 - All of the above

- x) Ashoka abandoned _____ and embraced _____ :
- Bherigosha, Digvijay
 - Dhammagosha, Bherigosha
 - Bherigosha, Dhammagosha
 - Dhammagosa, Digvijay
- xi) Which of the following pairs are incorrect?
- Ur : All classes
 - Sabha : Brahmins
 - Nagaram : Merchants
 - Ur : Landless
- xii) Which is the chronological order of the dynasties of the Delhi Sultanate?
- (1) Khilji, (2) Slave, (3) Lodi, (4) Sayyid, (5) Tughlaq
- (2); (3); (4); (5); (1)
 - (2); (1); (5); (4); (3)
 - (2); (1); (3); (4); (5)
 - (2); (1); (5); (3); (4)
- xiii) Which of the following was NOT a result of the Fall of Constantinople?
- Discovery of new trade ~~ports~~ routes
 - Crusades
 - Decline of Feudalism
 - Revival of learning
- xiv) Identify the book written by Abul Fazal :
- Humayunama
 - Ain-i- Akbari
 - Meghadutta
 - Baburnama
- xv) Who was called the 'Bard of Avon' :
- Edmund Spencer
 - Francis Bacon
 - William Shakespeare
 - Machiavelli

- xvi) Which of the following is not a cause for the rise of Socialism?
- Trade Union Movement
 - Chartist Movement
 - Reaction to Capitalism
 - Rise of Nation States
2. a) Why is Vidhan Parishad known as a Permanent House? [2]
- b) What is meant by the term Constitution? [2]
- c) Define the term Industrial Revolution. [2]
- d) State two architectural features of Qutub Minar. [2]
- e) What was known as a Letter of Indulgence? [2]
- f) Why was Gupta Period known as the Golden Age of Indian Culture? [2]
- g) Give any two characteristic features of the citadel. [2]

PART-II

[50 Marks]

SECTION A (CIVICS)

Answer any two questions from this section

3. With reference to Fundamental rights answer the following questions :
- Write a short note on Single Citizenship. [3]
 - State any three differences between the Fundamental Rights and Directive Principles of State Policy. [3]
 - Explain 'Right to Constitutional Remedies. Mention any two writs. [4]
4. With reference to Democracy and Elections, answer the following questions :
- How are the elections of President and Vice-president of India held? Give reasons to support your answer. [3]

- What is known as General Elections? What is meant by the term electorate? [3]
- State two points of differences between a by-election and mid-term election. [4]

5. With reference to State Legislature answer the following questions :

- What is Unicameral Legislature? What is a Bicameral Legislature? [3]
- What are the qualifications for being a member of the Legislative Assembly? [3]
- What is the term of the Legislative Assembly? Under what conditions can the term of the Legislative Assembly be extended or reduced? How are the members of Legislative Assembly elected? [4]

SECTION-B [History]

[50 Marks]

Answer any three questions from this Section

6. With reference to Mughal Empire, answer the following questions
- Explain briefly the significance of Ain-i-Akbari. [3]
 - What was Akbar's policies towards the Rajputs? [3]
 - What was the Mansabdari system? What was meant by zat and sawar rank? [4]
7. With reference to Sufi and Bhakti movement, answer the following questions :
- How did Sufi and Bhakti Movement foster unity and harmony between different communities? [3]
 - How did Bhakti movement promote regional languages and devotional literature? [3]
 - Explain the role of Christian Missionaries in promoting language, literature and art in India. [4]
8. With reference to the the Mauryan Empire, answer the following questions :
- Who wrote Arthasashtra? What is its importance? [3]

- b) Write a short note on the Central Government of the Mauryan Administration. [3]
- c) What is Dhamma and its impact on Ashoka's policies? [4]
9. Study the picture and answer the following questions :



- a) Identify the structure. List any two of its characteristic features. [3]
- b) State the importance of this structure as a source of information about Harappan Civilisation. [3]
- c) What are the causes for the decline of the Harappan Civilisation? [4]
10. With reference to Renaissance and Reformation answer the following questions :
- a) Write a short note on invention of the Printing Press. [3]
- b) What was Leonardo Da Vinci's contribution in the field of art? [3]
- c) How did new learning become a factor that led to the reformation? [4]

Note : You will not be allowed to write during the first fifteen minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answer. The intended marks for questions are given in brackets [].

प्रश्न-पत्र दो भागों में विभक्त है। खण्ड 'क' के सभी प्रश्नों के उत्तर दीजिए। खण्ड - 'ख' से केवल चार प्रश्नों के उत्तर देने हैं। साहित्य सागर (गद्य) व साहित्य सागर (पद्य) से एक-एक प्रश्न का उत्तर देना अनिवार्य है।

(खण्ड - क)

(40)

1. निम्नलिखित विषयों में से किसी एक विषय पर हिन्दी में लगभग 250 शब्दों में संक्षिप्त व सारगर्भित निबंध लिखिए : (15)

क) आज के विद्यार्थियों में बढ़ती अनुशासनहीनता के प्रमुख कारणों तथा दुष्परिणामों का वर्णन करते हुए विद्यार्थी जीवन में अनुशासन का महत्व बताइए।

ख) वर्तमान युग में मोबाइल फोन जीवन की आवश्यकता बन गया है। आज का समय स्मार्टफोन का समय है। इनके कुछ लाभ हैं तो कुछ हानियाँ भी हैं। इस संबंध में अपने विचार प्रकट कीजिए।

ग) किसी ऐसे पर्यटन स्थल का वर्णन कीजिए, जहाँ जाकर आपको सुकून मिला हो और वहाँ की यात्रा ने आपको एक ऊर्जा से भर दिया हो। यात्रा के आरंभ से अंत तक का वर्णन कीजिए।

घ) "ईश्वर जो करता है अच्छा ही करता है" इस उक्ति को आधार बनाकर एक मौलिक कहानी लिखिए।

ङ) नीचे दिए गए चित्र को देखकर जो भाव या विचार आपके मन में उठ रहे हैं, उन्हें अपने शब्दों में लिखिए। विषय का सीधा संबंध चित्र से होना चाहिए।



2. निम्नलिखित में से किसी एक विषय पर हिन्दी में लगभग 120 शब्दों में पत्र लिखिए : (7)
- आपके क्षेत्र की सड़कों पर रोशनी ना होने से अँधेरा रहता है। नगर निगम के अधिकारी को पत्र लिखकर उचित प्रबंध करवाने के लिए प्रार्थना कीजिए।

अथवा

- गर्मी की छुट्टियों के बाद अपने छात्रावास में सकुशल पहुँच जाने की सूचना अपने पिताजी को पत्र द्वारा दीजिए।
3. निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़िए तथा उसके नीचे लिखे प्रश्नों के उत्तर यथासंभव अपने शब्दों में लिखिए : (10)
- लगभग 500 साल पहले की बात है। तलवंडी जिला गुजरांवाला में एक पटवारी जी रहते थे। उनका एक बेटा था और एक बेटी। बेटे का नाम नानक और बेटी का नाम नानकी। बालक नानक चुपचाप रहता था। उसमें बच्चों वाली चंचलता तो थी ही नहीं। उछलकूद, मस्ती वह जानता ही ना था। उसकी माता की यह इच्छा रहती थी कि उसका नानक भी और बच्चों की भाँति बाहर जाकर खेलें, किलकारियाँ मारे परंतु नानक सदा खोया-खोया सा रहता था। नानक का मन पढ़ाई में बिल्कुल नहीं लगता था। उसे पढ़ाने वाले पंडित और मौलवी उसे प्रभावित न कर सके। वह उनसे ऐसे प्रश्न पूछता जिसका उत्तर उनके पास भी ना होता। बालक की यह स्थिति देखकर उसके माता-पिता को बड़ी चिंता हुई। एक दिन पटवारी जी ने अपनी पत्नी से कहा- "क्या करें? नानक का मन तो किसी काम में लगता ही नहीं है, कैसे इसका जीवन कटेगा? "मैं भी इसी फिक्क में घुली जा रही हूँ। मालूम नहीं, ये कैसा बालक है? अपने में खोया-खोया रहता है।" पत्नी ने दुखी मन से कहा। पटवारी जी बोले- "मेरे विचार से इसे कुछ पैसे देकर बाहर भेजा जाए। इसे कहा जाए कोई बढ़िया-सा सौदा खरीद कर लाए और अच्छे दाम पाकर बेच दे। इस प्रकार इसे व्यापार का अनुभव हो जाएगा।" पत्नी ने अपनी सहमति दे दी। अगले दिन पटवारी जी ने बेटे को पास बुलाकर कहा- "नानक! तू अब बड़ा हो गया है। तुझे किसी काम-धंधे पर लगाना चाहिए। माँ-बाप का साया हमेशा सिर

पर नहीं रहता। अब तुझे अपने पाँव पर खड़े होना चाहिए।" "बाबूजी, आज्ञा दीजिए, मैं क्या करूँ?" नानक ने नम्रता पूर्वक उत्तर दिया।

पिता ने कुछ रुपये बेटे के हाथ में दिए और कहा- "यह कुछ रुपये हैं, इन्हें व्यापार में लगाओ। कोई सच्चा खरा सौदा करके दिखाओ।" पिता की आज्ञा मानकर संसार के छल-कपट से अछूता नानक अपने साथी बाला के साथ चूहड़काणे की मंडी की ओर चल दिया। रास्ते में उन्हें कुछ साधु मिले। नानक और बाला उनके पास जा बैठे। जब नानक को यह मालूम हुआ कि ये साधु कई दिनों से भूखे हैं, उनके मन में एक विचार कौंधा। उसने तुरंत बाला को सभी रुपये दे दिए और कहा कि बाजार से साधुओं के लिए भोजन सामग्री ले आओ। साधुओं को भोजन करवाने के पश्चात् नानक और बालक घर लौट आए। नानक ने खुशी-खुशी सारी घटना अपने पिता को सुनाई। सुनते ही पटवारी जी ने माथा पीट लिया और क्रोध से बोले- "मैंने तुझे कुछ सौदा खरीदने को भेजा था और तू सारे रुपये निठल्ले लोगों को भोजन खिलाने में खर्च कर आया है। बता क्यों रुपये बर्बाद किया?" पिता की बात सुनकर नानक की आँखें छलक आईं। वह बोला- "बाबूजी! मेरे विचार में तो मैंने सच्चा और खरा सौदा किया है। भूखों को भोजन करवाने से बढ़कर सच्चा सौदा और क्या हो सकता है?" आगे चलकर वही बालक सिखों के प्रथम गुरु नानक देव जी के नाम से प्रसिद्ध हुआ। क) पटवारी जी कौन थे? कहाँ रहते थे? उनके बच्चों का नाम क्या था?

ख) बालक नानक का स्वभाव बचपन में कैसा था?

ग) पिता ने बेटे को रुपये देकर कहाँ और क्यों भेजा?

घ) नानक ने बाजार में जाकर क्या किया?

ङ) पिता ने पुत्र को किस प्रकार डाँटा? पुत्र ने फिर क्या उत्तर दिया?

4. निम्नलिखित प्रश्नों के उत्तर निर्देशानुसार लिखिए :

क) 'इंद्र' का पर्यायवाची है :

(1)

अ) देवेन्द्र

ब) गिरेन्द्र

स) राघवेन्द्र

द) विरेन्द्र

- ख) 'अधम' का विलोम है : (1)
 अ) विधम ब) प्रदम
 स) उत्तम द) नराधम
- ग) 'जो पहले न हुआ हो' के लिए एक शब्द है : (1)
 अ) उल्लेखनीय ब) अद्भुत
 स) भूतपूर्व द) अभूतपूर्व
- घ) 'आवश्यक' की भाववाचक संज्ञा है : (1)
 अ) आवश्यकता ब) अनावश्यकता
 स) अतिआवश्यक द) आवश्यक
- ङ) 'कृप्या' की शुद्ध वर्तनी है : (1)
 अ) कृपया ब) किरपया
 स) क्रपया द) कृप्या
- च) 'का वर्षा जब कृषि सुखाने' लोकोक्ति का अर्थ है : (1)
 अ) समय बीत जाने पर साधन के मिलने से क्या लाभ।
 ब) हार मानना
 स) खेती सूखने पर पानी का न मिलना।
 द) खेती के लिए पानी मिल जाना।
- छ) 'फिर भी यह प्रयास अपर्याप्त है' (बिना अर्थ बदले 'नहीं' शब्द का प्रयोग कीजिए।) (1)
 अ) फिर भी यह प्रयास अपर्याप्त नहीं है।
 ब) फिर भी यह प्रयास पर्याप्त नहीं है।
 स) कैसे यह प्रयास पर्याप्त नहीं है?
 द) यह प्रयास पर्याप्त है ही नहीं।
- ज) 'ताँबा' का तत्सम शब्द है : (1)
 अ) तामर ब) तांब्र स) ताम्र द) तांभ्र

(खण्ड - ख)

(40)

साहित्य-सागर (गद्य)

निम्नलिखित पंक्तियों को पढ़कर नीचे लिखे प्रश्नों के उत्तर दीजिए :

हालदार साहब जब पहली बार इस कस्बे से गुजरे और चौराहे पर पान खाने के लिए रुके तभी उन्होंने इसे लक्षित किया और उनके चेहरे पर एक कौतुकभरी मुस्कान फैल गई।

- क) हालदार साहब ने पहली बार कस्बे से गुजरते समय किस बात को लक्षित किया? (2)
- ख) उनके चेहरे पर एक कौतुक भरी मुस्कान क्यों फैल गई? (2)
- ग) जब जीप कस्बा छोड़कर आगे बढ़ गई तब भी मूर्ति के बारे में सोचते समय वह किस निष्कर्ष पर पहुँचे? (3)
- घ) हालदार साहब के अनुसार मूर्ति के रंग रूप या कद के महत्व की अपेक्षा किस चीज का महत्व अधिक होता है? स्पष्ट कीजिए। (3)
६. 'रुई के रेशे से, भाप से, बादल हमारे सिरों को छू-छूकर बेरोक घूम रहे थे।'
 क) लेखक और उनके मित्र कहाँ बैठे थे? (2)
 ख) बादलों को देखकर लेखक को कैसा लगा? (2)
 ग) लेखक को कोहरे की सफेदी में क्या दिखाई पड़ा? (3)
 घ) पहाड़ी लड़के के चरित्र की क्या विशेषताएँ थीं? (3)
7. उन दिनों एक प्रथा प्रचलित थी। यज्ञों के फल का क्रय विक्रय हुआ करता था।
 क) यज्ञों के क्रय-विक्रय से क्या आशय है? (2)
 ख) सेठानी द्वारा अपना यज्ञ बेचने का सुझाव दिए जाने पर सेठ की क्या प्रतिक्रिया हुई? (2)
 ग) यज्ञ बेचने के लिए सेठ जी कहाँ गए? वे कौन और कैसे लोग थे? (3)
 घ) सेठ जी ने कहाँ भोजन और विश्राम करने की सोची? वहाँ क्या हुआ? (3)

साहित्य सागर (पद्य)

8. निम्नलिखित प्रद्यांश को पढ़कर नीचे लिखे प्रश्नों के उत्तर लिखिए :
 बूढ़े पीपल ने आगे बढ़कर जुहार की
 'बरस बाद सुधि लीन्हीं', बोली अकुलाई लता ओट हो किवार की,
 हरसाया ताल लाया पानी परात भर के।
 मेघ आए बड़े बन-ठन के सँवर के।
 क्षितिज अटारी गहराई दामिनी दमकी,
 'क्षमा करो गाँठ खुल गई अब भरम की।'
 बाँध टूटा झर-झर मिलन के अश्रु ढरके।

- क) बूढ़े पीपल ने मेघों का स्वागत किस प्रकार किया? (2)
 ख) 'बरस बाद सुधि लीन्हीं', पंक्ति का क्या आशय है? (2)
 ग) ताल ने अपना हर्ष किस प्रकार प्रकट किया और क्यों? (3)
 घ) मेघों के आने से प्रकृति में क्या-क्या परिवर्तन होते हैं? समझा कर लिखिए। (3)

9. वह जन्मभूमि मेरी, वह मातृभूमि मेरी।

जन्म में जहाँ थे रघुपति, जन्मी जहाँ थी सीता,
 श्रीकृष्ण ने सुनाई, वंशी, पुनीत गीता।

गौतम ने जन्म लेकर, जिसका सुयश बढ़ाया,
 जग को दया दिखाई, जग को दिया दिखाया।

वह युद्धभूमि मेरी, वह बुद्धभूमि मेरी।

- क) रघुपति कौन थे? उन्हें क्यों याद किया जाता है? (2)
 ख) कवि को श्रीकृष्ण का स्मरण क्यों हो रहा है? (2)
 ग) गौतम कौन थे? उन्होंने क्या कार्य किया था? (3)
 घ) उपर्युक्त पंक्तियों के आधार पर भारत की महिमा का वर्णन कीजिए। (3)

10. गुन के गाहक सहस नर, बिन गुन लहै न कोय।

जैसे कागा कोकिला, शब्द सुनै सब कोय।।

शब्द सुनै सब कोय, कोकिला सबै सुहावन।

दोऊ को एक रंग, काग सब भए अपावन।।

कह गिरिधर कविराय, सुनो हो ठाकुर मन के

बिन गुन लहै न कोय, सहस नर गाहक गुन के।।

- क) कौवे के तिरस्कृत होने का क्या कारण है? (2)
 ख) कवि उपर्युक्त कुंडलियों द्वारा क्या सीख देते हैं? (2)
 ग) उपर्युक्त कुंडलियों का मूल भाव स्पष्ट कीजिए। (3)
 घ) कौवे और कोयल में क्या-क्या समानताएँ और असमानताएँ हैं? (3)

Answer to this paper must be written on the paper provided separately.

You will not be allowed to write during first fifteen minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers.

Section A is compulsory. Attempt any four questions from section B. The intended marks for questions or parts of questions are given in brackets.

SECTION-A

[40 Marks]

1. Select the correct options to the questions from the given options : [15]

i) Marasmus is caused due to the deficiency of :

- a) Fat
- b) Vitamin C
- c) Carbohydrates, fats and proteins
- d) Food

ii) The hardest substance in the human body is :

- a) Bone
- b) Enamel
- c) Cement
- d) Dentine

iii) Assertion (A) : Bile juice is produced in the kidney and is stored in liver :

Reason (R) : Bile juice is poured in duodenum through the common bile duct. It converts acidic pH of food to alkaline.

- a) A is true and R is false.
- b) Both A and R are true.
- c) A is false and R is true.
- d) Both A and R are false.

iv) The type of joint found at shoulder is also found at :

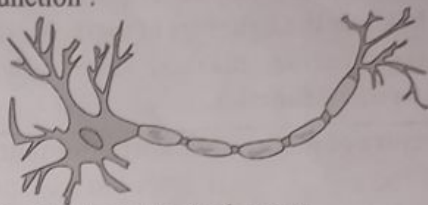
- a) Elbow
- b) Ankle
- c) Knee
- d) Hip

v) Sweat glands are situated in :

- a) Epidermis
- b) Both a and c
- c) Dermis
- d) None of the above

- vi) During respiration there is :
 a) Gain in dry weight. b) No change in dry weight.
 c) Loss in dry weight. d) Increase in overall weight.
- vii) Typhoid is caused by :
 a) Mycoplasma b) Virus
 c) Bacteria d) None of the above .
- viii) Assertion (A) : Sternum is a large bone formed by the fusion of five vertebrae. It is found between the lumber vertebrae and coccyx.
 Reason (R) : Sternum lies in the middle of the front part of the chest.
 a) A is true and R is false.
 b) A is false and R is true.
 c) Both A and R are true.
 d) Both A and R are false.
- ix) During inspiration, the diaphragm :
 a) Relaxes b) Expands
 c) Contracts d) Gets folded
- x) Which of the following transmit the pathogen of sleeping sickness.
 a) Housefly b) Butterfly
 c) Dragonfly d) Tsetse fly
- xi) Body's defense against diseases is termed as :
 a) Hygiene c) Immunity
 b) Health d) None of these
- xii) Which of the following city has the regional office of WHO?
 a) Mumbai b) Chennai
 c) Delhi d) Kolkata
- xiii) Out of the following which substance can be recycled many times?
 a) Plastic b) Wood
 c) Organic material d) Aluminium

- xiv) Given below is the structure of a specific cell found in human body. Select the best option for its function :



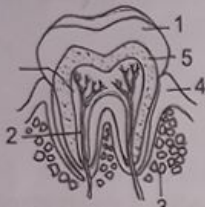
- a) Contracts the body parts
 c) Conducts the nerve impulse.
 b) Found in heart
 d) Osteocyte
- xv) Abraham tried to match the modified sweat gland and sebaceous gland with their functions in the human body. He tabulated two pairs as follows :

GLANDS	FUNCTIONS
P	Lubricates the margins of the eyelids
Q	Protects the delicate ear drum from dust particle and germs.

- a) P meibomian gland, Q salivary gland
 b) P ceruminous gland, Q meibomian glands
 c) P salivary gland, Q ceruminous gland
 d) P meibomian gland, Q ceruminous gland
2. i) Name the following : [5]
 a) Mineral element needed for strong teeth.
 b) Three main constituents of the human skeleton.
 c) Complexion of face is due to which pigment.
 d) The energy currency of the cell.
 e) The liquid domestic waste from the kitchen toilet, etc.
- ii) Choose the odd one out and name the category to which other belongs : [5]
 a) Cellulose, glycogen, fructose, starch.
 b) Trachea, bronchi, bronchioles, secondary bronchioles.

- ✓ c) Cholera, typhoid, malaria, tuberculosis.
 ✓ d) News paper, vegetable peel, DDT, animal waste.
 ✓ e) Pepsin, trypsin, steapsin, erepsin.

iii) Given below is the structure of tooth. Match the following structure marked 1 to 5 with their characteristics/ function. [5]

Internal structure of tooth	Characteristics/function
	a) Covers and fixes the roots in position.
	b) The exposed part of the tooth.
	c) Forms the bulk of tooth.
	d) The soft connective tissue.
	e) The embedded part of tooth.

iv) Given below is an incomplete table of vitamins, their rich sources and the related deficiency diseases. Fill in the blanks i to v with only one suitable word for each. [5]

Vitamin	Rich source	Deficiency diseases
i) _____	Whole grain	Berry berry
Niacin	Milk	ii) _____
Calciferol	iii) _____	Ricket
iv) _____	Carrot, yellow fruit	v) _____

v) Mention exact location and functions of the following structures : [5]

- (a) Nectaries (b) Coleoptile
 (c) Placenta (d) Flagella (e) Radicle

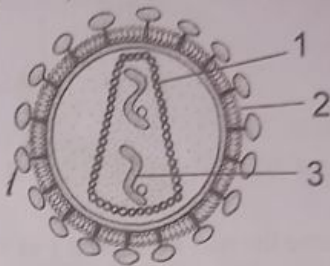
SECTION-B

[40 Marks]

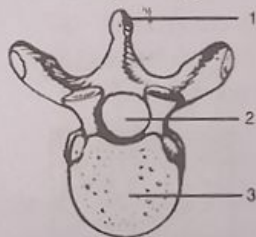
3. Attempt any four questions from this section.

- i) Define peristalsis. [1]
 ii) What is meant by residual air and dead air space? [2]
 iii) Distinguish between true ribs and floating ribs. [2]
 iv) Draw a well labeled sketch of villi. (4 labeling) [2]

v) The diagram given below represents a kind of microorganism, study the same and answer the following questions : [3]

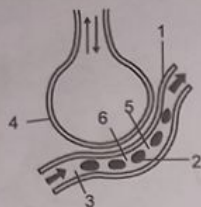


- a) Identify the microorganism.
 b) To which category of microorganism does it belong?
 c) Label the guidelines 1, 2 and 3.
4. i) Define nitrification. [1]
 ii) Why is respiration said to be the reverse of photosynthesis? [2]
 iii) Distinguish between the following pair : [2]
 Protandry and protogyny
 iv) Which one of the following animals are invertebrates? [2]
 Housefly, silverfish, trout, jelly fish, whale, penguin and sponge.
- v) The figure given below shows a kind of vertebrae. Study the figure. Answer the following questions : [3]



- 1 a) Name the vertebrae.
 b) Where is this vertebrae located?
 c) Label the guideline 1, 2, 3.
5. i) Define asphyxiation. [1]
 ii) What is the dental formula of a normal human adult? [2]
 iii) Name the principle behind the formation of wine. Write two characteristics of wine. [2]
 iv) Justify the statement that maize grain is one-seeded fruit. [2]

- v) Given below is a diagrammatic sketch of a part in human lungs. [3]



- Name the part numbered 1 to 4.
- What do the arrow 5 and 6 indicate?
- Name the phenomenon occurring.

6. i) Define composting? [1]

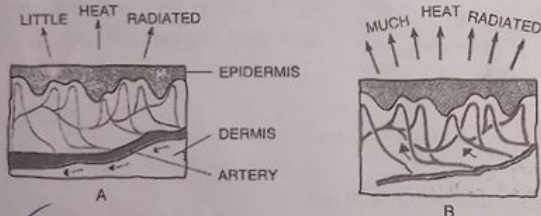
- ii) Give the overall balanced chemical reaction to represent the process of respiration in human being. [2]

- iii) Give reason for the following : [2]

- People in old age complain of stiff joints.
- Decalcified bones become soft and flexible.

- iv) Describe any two roles of bacteria in the food industry. [2]

- v) The figure A and B given below represents the way of heat regulation in our body with the help of blood vessels. Study the figure given below and answer the question that follows : [3]



- Name the process shown in the figure A and B.
- During what climatic conditions, do these processes occur in our body?
- What color change do we see in the facial appearance of a person during these situations.

7. i) Define the term prophylaxis. [1]

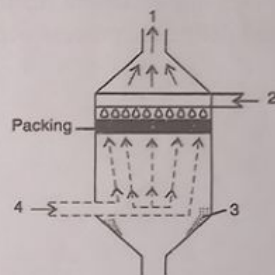
- ii) Write the full form of following abbreviations [2]

- HIV
- COVID-19

- iii) Abnormally large number of WBC in the blood is usually an indication of some infection in our body. Comment on the statement : [2]

- iv) What are infectious diseases, how they spread? [2]

- v) The figure given below represents a device. Study the same and answer the following questions : [3]



- Identify the device.
- Label the guidelines 1, 2, 3 and 4.
- Name another similar kind of device which can also be used for the same purpose.

8. i) Define piloerection. [1]

- ii) Give reason for the following : [2]

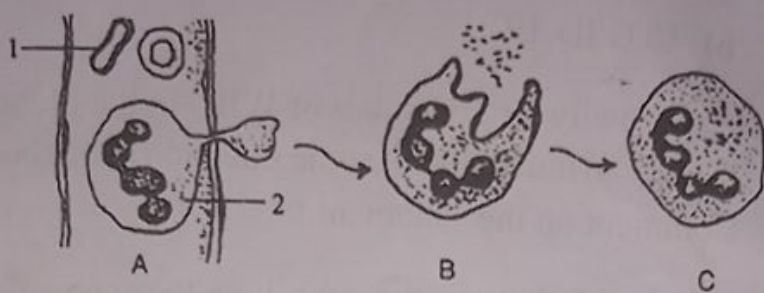
- Landfills are coming up fast near large cities.
- Broken glass utensils are a kind of non degradable waste.

- iii) Name two major categories of health problems in India. [2]

- iv) When red cross day is celebrated? State its two main functions. [2]

- v) The figure A, B and C given below represents a kind of protective method in our body. Study the same and answer the following questions.

[3]



- Name and define the process which occur in the figure A.
- What kind of blood vessel is shown in figure A? Write its one structural feature.
- Name and define the process occurring in figure B.

□□□

Class - IX

Time : 2 Hrs. COMPUTER APPLICATIONS M.M. : 100

Note : You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. This paper is divided into two Sections. Attempt all questions from Section-A and any four questions from Section-B. The intended marks for questions or parts of questions are given in brackets [].

SECTION - A

(Attempt All questions from this Section)

1. Choose the correct answers to the questions from the given options : [20]

(Do not copy the questions, write only the correct answers.)

i) Consider the following code snippet :

```
int i=10;
```

```
int n=i++ % 5;
```

What are values of i and n after the code is executed?

a) i=10, n=1

b) i=10, n=0

c) i=11, n=1

d) i=11, n=0

ii) The term _____ means ability to take many forms.

a) Encapsulation

b) Inheritance

c) Polymorphism

d) Abstraction

iii) Which of the following are mandatory part of switch statement?

a) break

b) default

c) case

d) println()

iv) Division by a variable that contains a value zero is which type of error?

a) Run time error

b) Logical error

c) Syntax error

d) None

v) Inheritance promotes :

a) Data hiding

b) Data reusability

c) Function overloading

d) None

- vi) What will be the output?
`int P=Math.abs(Math.max(-91, -97));`
`system.out.print(p);`
 a) -91 b) 97
 c) -97 d) 91
- vii) How many times will the loop, `for (int i=1; ; i++)` execute?
 a) 1 b) 0
 c) infinite d) None
- viii) Number of bits occupied by double data type :
 a) 64 b) 4
 c) 16 d) 32
- ix) What will be the output of following program code :
`int a=2, b=3;`
`b+=a++ * a-- ++a;`
`System.out.println(b);`
 a) 12 b) 13
 c) 9 d) None
- x) Coercion is another name of :
 a) Implicit type conversion
 b) Explicit type conversion
 c) Both d) None
- xi) Assertion(A) : A class in Java can be considered an object factory as it is used to create multiple instances of objects.
 Reason(R) : Classes serve as blueprints or the templates to define the state and behavior of objects.
 a) Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation for Assertion (A).
 b) Both Assertion (A) and Reason (R) are true, and Reason (R) is not the correct explanation for Assertion(A).
 c) Assertion (A) is true and Reason (R) is false.
 d) Assertion (A) is false and Reason (R) is true.

- xii) Predict the output of the following code snippet :
`int v=5;`
`while (-v>=0)`
`System.out.print(v); }`
 a) 43210 b) 54321
 c) 543210 d) 4321
- xiii) Intermediate code obtained after compilation is :
 a) Source code b) Middle code
 c) Object code d) Byte code
- xiv) Which of the following data types can have only one value at a time?
 a) Primitive b) Reference
 c) Abstract d) Import
- xv) Which of the following statement accomplishes a 'fall through'?
 a) for statement b) if-else
 c) while d) switch case statement
- xvi) Which one of the following is a composite data type?
 a) int b) String
 c) char d) float
- xvii) What will be the output of following code segment?
`double S=0.0;`
`// S=Math.pow(2.0,2);`
`System.out.print(S);`
 a) 4.0 b) 4
 c) 5.76 d) 0.0
- xviii) AWT stands for :
 a) Application Window Toolkit
 b) Abstract Window Toolkit
 c) Absolute Window Toolkit
 d) Abstract Window Tool
- xix) Which one of the following is not a keyword?
 a) class b) new
 c) Case d) short

xx) Assertion (A) : In switch case break statement avoid fall through.

Reason (R) : break statements helps to execute only one case at a time.

- Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation for Assertion (A).
- Both Assertion (A) and Reason (R) are true, and Reason (R) is not the correct explanation for Assertion (A).
- Assertion (A) is true and Reason (R) is false.
- Assertion (A) is false and Reason (R) is true.

2. i) Write java expression for : $\sqrt{|A+B|} + D^5$ [2]

ii) Write the output :

```
int a=4, b=7;
a+=(a++) - (++b) + b;
System.out.print(a)
```

iii) Write any two differences between while() and do while() loop. [2]

iv) Rewrite the following do-while program segment using for loop : [2]

```
int x=10, y=20;
do { x++;
    y++;
} while(x<=20);
```

System.out.println(x*y);

v) Explain Explicit type conversion with example. [2]

vi) Give the output of the following program segment : [2]

```
double p=4.9, q=3.4;
System.out.println(Math.min(Math.floor(p),q));
System.out.println(Math.max(Math.ceil(p),q));
```

vii) Give the output :

```
int n=1234, d, s=0, c=0;
while ( n!=0 )
{ d=n%10;
  s=s+d*(int)Math.pow(10,c++);
  n=n/10; }
System.out.println(s);
```

viii) What do you understand by 'Run Time' error? Explain with an example. [2]

ix) What is spam? Discuss two ways of protection from spam. [2]

x) What do you understand by primitive and non-primitive data types? Give an example of each. [2]

SECTION - B

(Attempt any four questions from this Section)

3. The State Electricity Board calculates the electricity bill for their consumers according to the unit(s) consumed (per month) as per the given tariff : [15]

UNIT CONSUMED	CHARGES
Upto 100 units	Rs. 2.75/unit
More than 100 units and upto 300 units	Rs. 3.25/unit
More than 300 units and upto 500 units	Rs. 4.75/unit
More than 500 units	Rs. 5.25/unit

Write a program to input consumer number, consumer name, month name and unit consumed. Calculate and display the electricity bill with all details.

4. Write a program to input a number and determine whether the given number is an abundant number or not. [15]
[Hint : An abundant number is a number for which the sum of its proper divisors is greater than the number itself.]

Input:--- 12

Then sum of its proper divisors is $1+2+3+4+6 = 16$

As $16 > 12$

Output:--- 12 is an abundant number.

5. The volume of following solids can be calculated by the formula : [15]

- i) Volume of a cuboid ($v = l * b * h$)
- ii) Volume of a cylinder ($v = \pi r^2 * h$)
- iii) Volume of a cone ($v = \frac{1}{3} * \pi r^2 * h$)

Using the switch case statement, write a program to find and display the volume of different solids by taking suitable variables and data types as input.

6. Write separate program to : [15]

a) generate the following patterns using looping :

```
#
# @
# @ #
# @ # @
# @ # @ #
```

b) print the sum of following series :

$$1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \frac{1}{5} - \dots \dots \dots \frac{1}{n}$$

7. Write a program to input a number and determine whether the given number is a Corona number or not. [15]
[Hint : A Corona number is a number whose all digits are odd.]

Input:---- 9537

Since all digits are odd

Output:--- 9537 is a corona number.

8. Explain the following : [15]

- i) Copyright
- ii) Trademark
- iii) Internal threats to system
- iv) for loop with its syntax and example
- v) Types of comments in java

Class - IX

Time : 2 Hrs.

ENGLISH - II

M.M. : 80

Note : You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The paper has four Sections. Section A is compulsory- All questions in Section A must be answered. You must attempt one question from each of the sections B, C, and D and one other question from any section of your choice. The intended marks for questions or parts of questions are given in brackets [].

SECTION - A

(Attempt all questions from this Section.)

1. Choose the correct answers to the questions from the given options : [16]

(Do no copy the questions, write the correct answers only.)

- i) Why does Calpurnia urge Caesar to stay home on the ides of March?
- a) She wants him to spend time with her.
 - b) She has had a terrible nightmare and fears for his safety.
 - c) She believes the Senate will humiliate him.
 - d) She wants to test his love for her.
- ii) What does Cassius mean when he says, "The fault, dear Brutus, is not in our stars, but in ourselves, that we are underlings"?
- a) Fate controls everything, and they must accept it
 - b) They are responsible for their own destiny, not fate.
 - c) The gods have already determined Caesar's rule.
 - d) Brutus and Cassius are powerless against Caesar's rise.
- iii) "Between the acting of a dreadful thing and the first motion, all the interim is like a phantasma or a hideous dream."
- What does Brutus express in these lines?
- a) He is struggling with the moral dilemma of killing Caesar
 - b) He is afraid that the conspiracy will fail

- c) He believes Caesar already knows of their plot.
 d) He is excited about taking power for himself.
- iv) Which line from the play best reflects Cassius' manipulative nature?
 a) 'Men at some time are masters of their fates.'
 b) 'Cowards die many times before their deaths.'
 c) 'Friends, Romans, countrymen, lend me your ears.'
 d) 'I am constant as the northern star.'
- v) Select the option that shows the correct relationship between statements (1) and (2).
Statement 1 : Cassius tells Casca that the storm is a warning sign of Caesar's growing power.
Statement 2 : Casca believes the storm is an omen of disaster for Rome.
 a) Statement 1 is true and statement 2 is false.
 b) Statement 2 is true and statement 1 is false.
 c) Statement 2 is the cause for statement 1.
 d) Statement 1 and statement 2 are independent of each other.
- vi) Why does Brutus refuse to swear an oath with the conspirators?
 a) He believes their cause should be strong enough without an oath.
 b) He does not fully trust the conspirators.
 c) He fears they will be caught.
 d) He is unsure about killing Caesar.
- vii) Why does Bonku Babu become confident after meeting Ang?
 a) Ang gives him a magical power
 b) Ang offers him a job
 c) Ang teaches him to stand up for himself
 d) Ang gives him a gift

- viii) Identify the tone of the story during Oliver's birth scene?
 a) Joyful and celebratory
 b) Sombre and Melancholic
 c) Hopeful and optimistic
 d) Energetic and lively
- ix) What does Trevor say about the artist's heart?
 a) It is filled with kindness
 b) It is the same as his emotions
 c) An artist's heart is his head
 d) An artist has no heart
- x) What did Makhan do when the boys tried to role the log?
 a) He joined them enthusiastically
 b) He ran away to tell their mother
 c) He sat on the log and refused to move
 d) He started crying loudly
- xi) Why was Nathu upset while sweeping the steps of Pipalnagar Bank?
 a) He was angry about the dust
 b) He had not received his regular pay
 c) The bank was too dirty
 d) He was annoyed by Sitaram
- xii) In the story 'Homecoming' what did the middle-aged stranger ask Phatik?
 a) Where the Chakravortis lived
 b) Where the market place was
 c) Where the fields were
 d) Where the Sarpanch lived
- xiii) What does the Bonsai tree symbolize in the poem?
 a) Nature
 b) Women confined by societal norms
 c) Strength and resilience
 d) Artistic beauty

xiv) What time of day does Skimbleshanks perform his duties?

- During the day
- During the night
- Early morning
- In the afternoon

xv) What did the poet remember about his childhood home, in the poem 'I remember, I remember'?

- The garden
- The house where he was born
- The road to school
- The school playground

xvi) What was the doctor's role during the bombing of Hiroshima?

- A soldier
- A firefighter
- A witness
- A doctor treating victims

SECTION - B

(Answer one or more questions from this section)

DRAMA

(Julius Caesar by William Shakespeare)

2. Read the extract given below and answer the questions that follow :

Brutus :

It must be by his death. And for my part

I know no personal cause to spurn at him.

But for the general. He would be crowned :

How that might change his nature, there is the question

i) How does Brutus' declaration 'It must be by his death' reflect his internal conflict between personal loyalty and political responsibility? [3]

ii) Discuss the significance of Brutus' reasoning for Caesar's death 'for the general' and not from 'personal cause'. [3]

iii) Analyse the significance of the phrase, 'He would be crowned' in the context of Roman political culture. [3]

iv) What does Brutus' contemplation of 'How that might change his nature' suggest about his views on human nature and power? Do you think his fears are justified? [3]

v) In what way do these lines foreshadow the eventual consequences of Brutus' decision both for himself and for Rome? [4]

3. Read the extract given below and answer the questions that follow :

Brutus :

I will do so. But, look you, Cassius,
The angry spot doth glow on Caesar's brow,
And all the rest look like a chidden train;
Calpurnia's cheek is pale.....

Cassius :

Casca will tell us what the matter is.

i) What festival was being celebrated by 'the games'? Explain for what special reason Calpurnia was present on this occasion. [3]

ii) Where are Brutus and Cassius at this moment? Why had they not gone with the rest? [3]

iii) As soon as Caesar enters, he voices his opinion about Cassius to Antony. Point out two of the comments Antony makes about him. [3]

iv) What two different incidents "worthy of note" does Casca relate as being happened before Caesar left the games? [3]

v) In what manner does Casca give them his report? What is revealed of his character in this scene? [4]

SECTION - C

(Answer one or more questions from this section)

PROSE - SHORT STORIES

(Treasure Chest - A Collection of ICSE Short Stories and Poems)

4. Read the extract from Charles Dickens' short story, 'Oliver Asks For More' given below and answer the questions that follow :

He took Oliver away and shut him in a dark room. The next morning a notice appeared on the work house gate. Five pounds were offered to anybody who take Oliver Twist. Oliver was a prisoner in that cold dark room for a whole week. Every morning, he was taken outside to wash and Mr. Bumble beat him with a stick.

- Where was Olive taken? What was his condition during the week? [3]
- What action was taken by the authorities regarding Oliver? [3]
- The way Oliver is treated in the dark room, shows how harsh life is in the work house. Justify. [3]
- What does Mr. Bumble's behaviour towards Oliver indicate about his character? [3]
- What does the tone of the extract reveal about Oliver's situation at the work house? [4]

5. Read the extract from Ruskin Bond's short story, 'The Boy Who Broke The Bank' given below and answer the questions that follow :

Mrs. Bhushan was fanning herself with a large handkerchief. She complained of the summer which she affirmed, was definitely the hottest in the history of Pipalnagar. She then showed Mrs. Srivastava sample of the cloth she was going to buy and for five minutes they discussed its shade, texture and design. Having exhausted this topic Mrs. Srivastav said, "Do you know my dear that Seth Govind Ram's bank cannot even pay his employees?"

- What was Mrs. Bhushan doing when Mrs. Srivastava met her? What was her reaction? [3]
- Analyse why Mrs. Bhushan complained about the summer in Pipalnagar? What does it tell us about her lifestyle as compared to the characters mentioned before? [3]
- How did the conversation between the two, shift from discussing clothes to discussing the bank situation? [3]
- Do you think Mrs. Srivastava's sharing of the bank's financial issue was appropriate? Why or why not? [3]
- What does the complaint from the sweeper reveal about bank's financial situation? What does it tell us about the condition of the people? [4]

SECTION - D

(Answer one or more questions from this section)

POETRY

(Treasure Chest - A Collection of ICSE Short Stories and Poems)

6. Read the extract from Marge Piercy's poem, 'A Work Of Artifice' given below and answer the questions that follow :

The Bonsai tree
In the attractive pot
Could have grown eighty feet tall
On the side of a mountain
Till split by lightning
But a gardener
Carefully pruned it.
It is nine inches high

- What does the Bonsai tree symbolise in the stanza? [3]
- How does the 'attractive pot' contribute to the poem's theme? [3]
- What is the significance of the phrase 'could have grown eighty feet tall'? How does it stand in contrast with the tree being nine inches high? [3]

- iv) What role does the gardener play in the stanza? [3]
v) Identify and elaborate on the literary devices used in the above lines. [4]

7. Read the extract from T.S. Eliot's poem, 'Skimbleshanks' given below and answer the questions that follow :

He will watch you without winking and he sees what you are thinking

And it is certain that he does not approve
Of hilarity and riot, so the folk are very quiet
When skimble is about and on the move

- i) What does the poet suggest about the Skimbleshanks's ability to maintain order on the train? [3]
ii) How does Skimbleshanks contribute to the comfort of the passengers on the northern mail? [3]
iii) 'He will watch you without winking, and he sees what you are thinking'. What does this line imply about Skimbleshanks character? [3]
iv) The poet emphasizes that 'nothing goes wrong on the northern mail when Skimbleshanks in aboard.' Why does he do so? [3]
v) How does description of the berths reflect the overall mood created by Skimbleshanks presence? [4]

□□□

Annual Examination : 2025-26

Class - IX

Time : 1 Hr

MORAL SCIENCE

M.M. : 50

Note : You will not be allowed to write during the first fifteen minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answers. The intended marks are given in the bracket [].

1. Answer the following questions : [30]

- Define self-defence.
- Which things serve as protective weapons in the modern-day world?
- What is imperative for us to learn?
- List some common superstitions.
- What happened in 1912 and thereafter in Tagore's life?
- What message do we give when we do not keep a promise?

2. Write 'True' or 'False' : [10]

- Mahamana was an extremist leader.
- You can keep every single promise that you make
- You should not rationalise or make excuses for yourself
- The natural phenomenon are not clouded by superstition.
- Failures teach us many important lessons in life.
- The martial art Aikido originated in Israel.
- Many people believe Friday to be an inauspicious for haircut.
- By keeping promise we lose our repute.
- Father Damien died at the age of 60.
- Walt Disney was a pioneer of the American animation industry.

3. Write the 'Preamble' of the Indian Constitution. [10]

Class - IX

Time : 2 Hrs. Commercial Applications M.M. : 100

Note : Answer to this paper must be written on the paper provided separately. You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this paper is the time allowed for writing the answer. Section-A is compulsory. Attempt any four questions from Section-B. The intended marks for question or parts of the questions are given on the brackets [].

SECTION - A [40 Marks]

(Attempt all questions from this Section.)

1. Choose the correct answers to the questions from the given options : [20]

(Do not copy the question, write the correct answer only.)

- i) These organisations are engaged in buying and selling of goods.
- Banking and Finance Companies
 - Trading Organisations
 - Transport Organisations
 - Manufacturing Organisations
- ii) The ownership where individual supplies the total capital from his own wealth or from borrowed fund is :
- Sole Proprietorship
 - Joint Hindu Family Business
 - General Partnership
 - None of these
- iii) A hospital improperly disposes of infectious waste, leading to contamination of nearby soil and water sources. Which colour-coded bag should this waste have been disposed of in?
- Blue
 - Yellow
 - Black
 - White

- iv) Which of the following is not a non-conventional resource of energy?
- Hydropower generation
 - Wind power
 - Coal energy
 - Solar energy
- v) **Statement I** : Partnership is an association of two or more persons.
Statement II : Partnership is an agreement between two or more persons.
- Only I is correct
 - Only II is correct
 - Both I and II are correct
 - Both I and II are wrong
- vi) The main causes for depletion of resources is/are.
- Over use/Irrational use
 - Population growth
 - Non-equitable distribution of Resources
 - All of these
- vii) The minimum number of members in a private company are :
- | | |
|--------------|------------------|
| a) Minimum 5 | b) Minimum 2 |
| c) Minimum 7 | d) None of these |
- viii) Which atmospheric gas is used by plants to make their food by photosynthesis?
- | | |
|-------------------|-------------|
| a) Oxygen | b) Nitrogen |
| c) Carbon dioxide | d) Argon |
- ix) Farmers in a drought-prone area are unable to get loan from traditional banks. Which cooperative society can help them with credit?
- Cooperative farming society
 - Credit Cooperative
 - Marketing Cooperative
 - Industrial Cooperative

- x) Debtor's Ledger consists of accounts of customer to whom goods are sold :
- | | |
|--------------|----------------------|
| a) on cash | b) on debit |
| c) on credit | d) Either (a) or (b) |
- xi) Public sector organisations may either be party or wholly owned by the _____ government.
- | | |
|------------|---------------------|
| a) State | b) Central |
| c) Foreign | d) Central or State |
- xii) _____ means the amount which the proprietor or owner has invested in the firm or can claim from the firm.
- | | |
|------------|-----------------|
| a) Assets | b) Liability |
| c) Capital | d) None of this |
- xiii) Which of the following cannot be form of Public Sector Enterprises.
- Department Undertaking
 - Statutory Corporation
 - Private Corporation
 - Government Companies
- xiv) **Assertion (A)** : Video conferencing is more effective than face to face communication for team collaboration.
Reason (R) : Video conferencing eliminates physical barriers, allowing participants to connect from different locations.
- | |
|--|
| a) both A and R are true, and R explains A |
| b) Both A and R are true, but R does not explain A |
| c) A is true, but R is false |
| d) A is false, but R is true |
- xv) _____ is an example of Intangible Assets.
- | | |
|--------------|-------------|
| a) Furniture | b) Cash |
| c) Building | d) Goodwill |
- xvi) A _____ account may be defined as summary of all transactions relating to a particular head of one place.
- | | |
|----------------|------------------|
| a) Journal | b) Ledger |
| c) Credit book | d) None of these |

xviii) Which methods of communication is the most suitable in case of emergency.

- a) Spoken
b) Written
c) Both
d) None

xviii) _____ is a system of electronic correspondence used to send and receive messages through a network of computer and telecommunications links

- a) Letter
b) Memo
c) E-mail
d) Fax

xix) Which of the following is NOT a demerit of partnership?

- a) Unlimited liability
b) Limited Resources
c) Secrecy
d) Lack of public confidence

xx) The main barriers to communication is/are :

- a) Physical barriers
b) Consultation
c) Attentiveness
d) All of these

i) Distinguish between :

- a) Renewable and non-renewable energy resources.
b) Liability and Assets

ii) Justify the following sentences for or against and give a reason.

a) Trial Balance is a summary of all the ledger accounts.

b) Written communication is less authentic than spoken communication.

c) Entrepot trade involves both import and export.

[10]

3.

i) Write any two characteristics of business.

ii) Write the composition of air.

iii) Write any two advantages of e-mail.

iv) How is population growth a cause of resource depletion?

v) Explain terrace farming and Rainwater harvesting.

SECTION - B

[60 Marks]

(Attempt any four questions from this Section.)

[5]

4. i) Describe the purposes for which a memo is used.

ii) Explain briefly the role of Human Resources Department.

iii) What are the various sources of air pollution?

Explain any three.

Distinguish between formal and informal

communication. (Any five)

5. i) Explain five features of a joint stock company.

ii) What do you understand by Petty cash book? Write

any three advantages of it.

6. i) What is accounting? Write any three features of

accounting.

ii) Explain any three merits and two demerits of

cooperative society.

iii) Write any five differences between Company and

Partnership.

7. i) Write short note on :

a) Multinational Company

b) Chartered Company

ii) Under what circumstances is verbal communication

better than non verbal communication?

iii) Explain Solar energy and Bioenergy.

8. i) How soil and water pollution is caused due to

agriculture development?

ii) Explain the following accounting terminology :

a) Capital
b) Debtors

iii) Explain any five features of a good business letter

as a tool of communication.

[5]

9. Case Study :

A leading retail chain, Walkart known for its nationwide presence and customer-centric approach, recently faced challenges in internal communication that had significant operational implications. The company's rapid expansion into tier - 2 and tier - 3 cities came with

the promise of growth, but it also revealed gaps in their communication processes, impacting their overall efficiency. Walkart's management relied heavily on traditional communication channels, such as emails and in - person meetings, to relay operational updates, promotional strategies, and sales targets across its branches. However, this approach became increasingly problematic as the number of branches grew, resulting in delayed updates and inconsistent messaging. For instance during a nationwide sale campaign, some branches receive promotional details late, leading to stock mismanagement and customers dissatisfaction.

Recognizing the problem, the company introduced a real time communication platform tailored for commercial organisations. This platform integrated inventory management systems, customer feedback mechanisms, and employee communication channels. It allowed branch managers to access instant updates, monitor inventory levels and communicate with the central office without delays. Within three months of implementation, Walkart observed a 25% reduction in operational errors and a 40% increase in customer satisfaction ratings. Additionally, employee engagement surveys highlighted that 85% of staff found the new system more effective than the previous methods.

Despite these improvements, challenges remain. Some employees, specially those in smaller branches, struggle with adapting to the new technology. Management is now focusing on training programs to ensure uniform adoption across all locations.

- i) What were the main communication challenges faced by Walkart? [5]
- ii) How did the new communication platform address these challenges? [5]
- iii) What were the key outcomes observed after implementing the new communication system? [5]