

Questions with Answer Keys

MathonGo

Q1 (20 July 2021 Shift 1)

In the given reaction 3 -Bromo-2, 2 -dimethyl butane $\xrightarrow{\text{C}_2\text{H}_5\text{OH}}$ 'A' (Major Product)

Product A is:

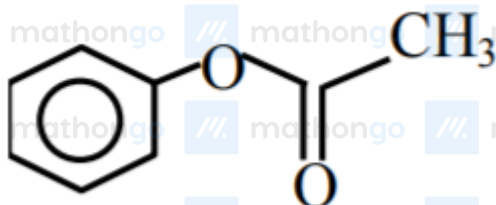
- (1) 2-Ethoxy-3, 3-dimethyl butane
- (2) 1-Ethoxy-3, 3-dimethyl butane
- (3) 2 -Ethoxy-2, 3 -dimethyl butane
- (4) 2-Hydroxy-3, 3-dimethyl butane

Q2 (20 July 2021 Shift 1)

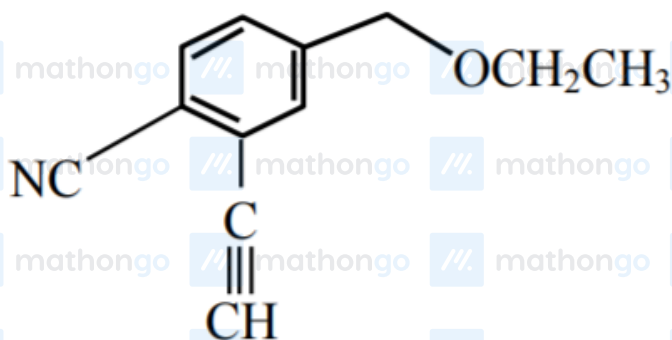
To synthesise 1.0 mole of 2 -methylpropan-2-ol from Ethylethanoate ___ equivalents of CH_3MgBr reagent will be required. (Integer value)

Q3 (22 July 2021 Shift 1)

Which of the following compounds will provide a tertiary alcohol on reaction with excess of CH_3MgBr followed by hydrolysis?



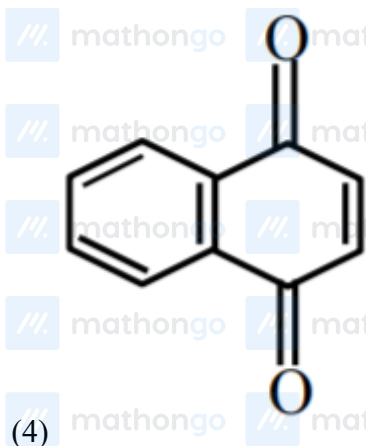
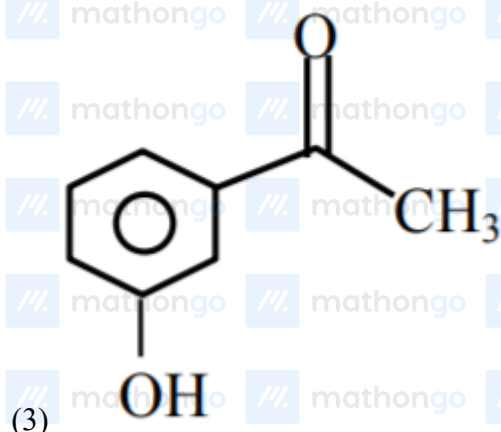
(1)



(2)

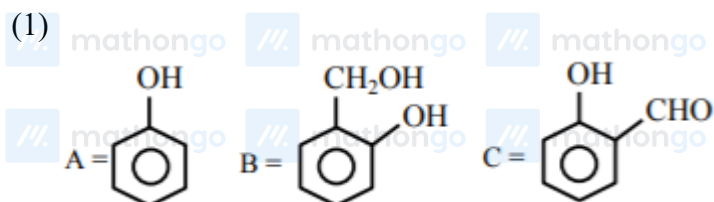
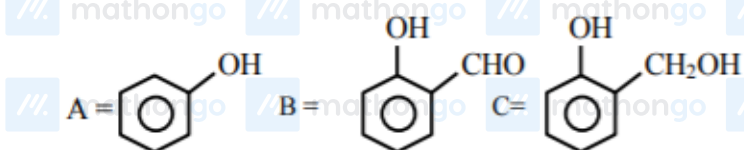
Questions with Answer Keys

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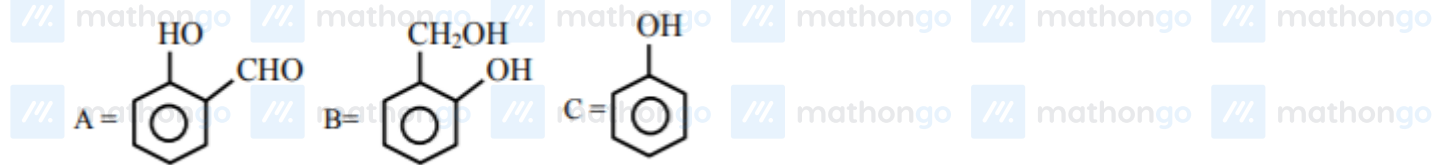
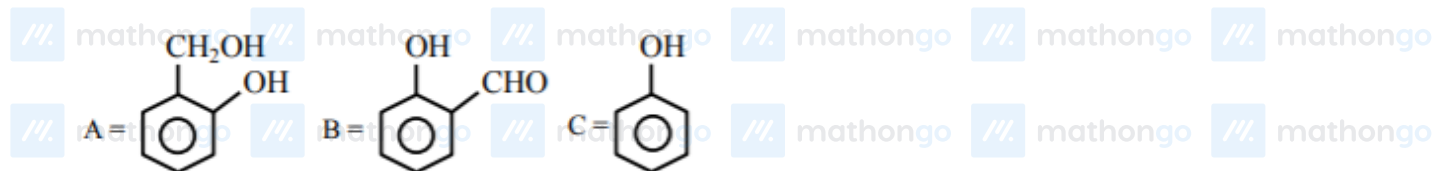
Q4 (22 July 2021 Shift 1)

An organic compound A (C_6H_6O) gives dark green colouration with ferric chloride. On treatment with $CHCl_3$ and KOH , followed by acidification gives compound B. Compound B can also be obtained from compound C on reaction with pyridinium chlorochromate (PCC). Identify A, B and C.



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Q5 (25 July 2021 Shift 1)



Consider the above reaction, the major product 'P' is:



Q6 (25 July 2021 Shift 1)



The given reaction can occur in the presence of :

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Questions with Answer Keys

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(a) Bromine water

(b) Br_2 in CS_2 , 273 K(c) $\text{Br}_2/\text{FeBr}_3$ (d) Br_2 in CHCl_3 , 273 K

Choose the correct answer from the options given below:

(1) (b) and (d) only

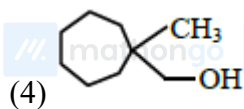
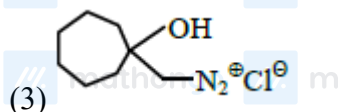
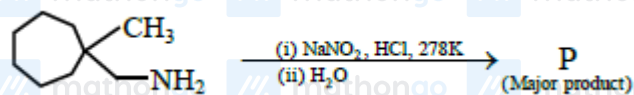
(2) (a) and (c) only

(3) (b), (c) and (d) only

(4) (a), (b) and (d) only

Q7 (25 July 2021 Shift 2)

What is the major product "P" of the following reaction ?

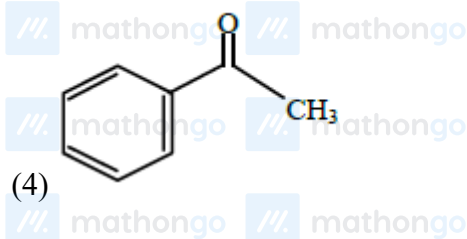
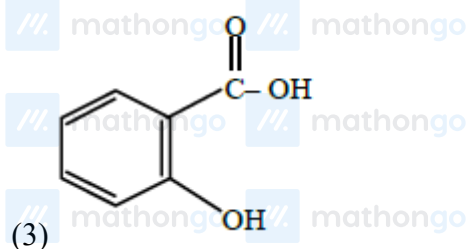
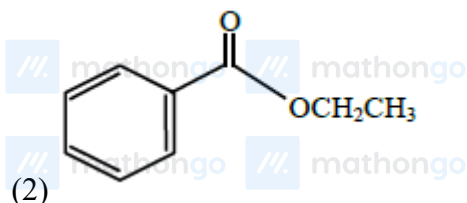
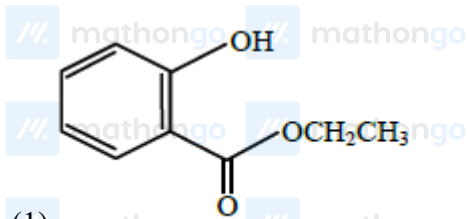


Q8 (27 July 2021 Shift 1)

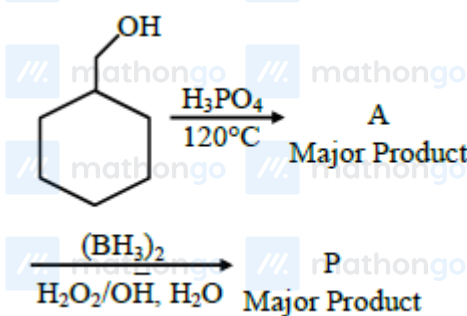
Which one of the following compounds will give orange precipitate when treated with 2,4-dinitrophenylhydrazine ?

Questions with Answer Keys

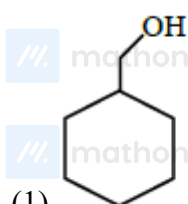
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Q9 (27 July 2021 Shift 1)



Consider the above reaction and identify the Product P :



Questions with Answer Keys

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Q10 (27 July 2021 Shift 2)



Consider the above reaction, the major product "P" formed is :-



Questions with Answer Keys

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Answer Key

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Q1 (3)

Q2 (2)

Q3 (1)

Q4 (1)

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Q5 (3)

Q6 (3)

Q7 (4)

Q8 (4)

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Q9 (4)

Q10 (2)

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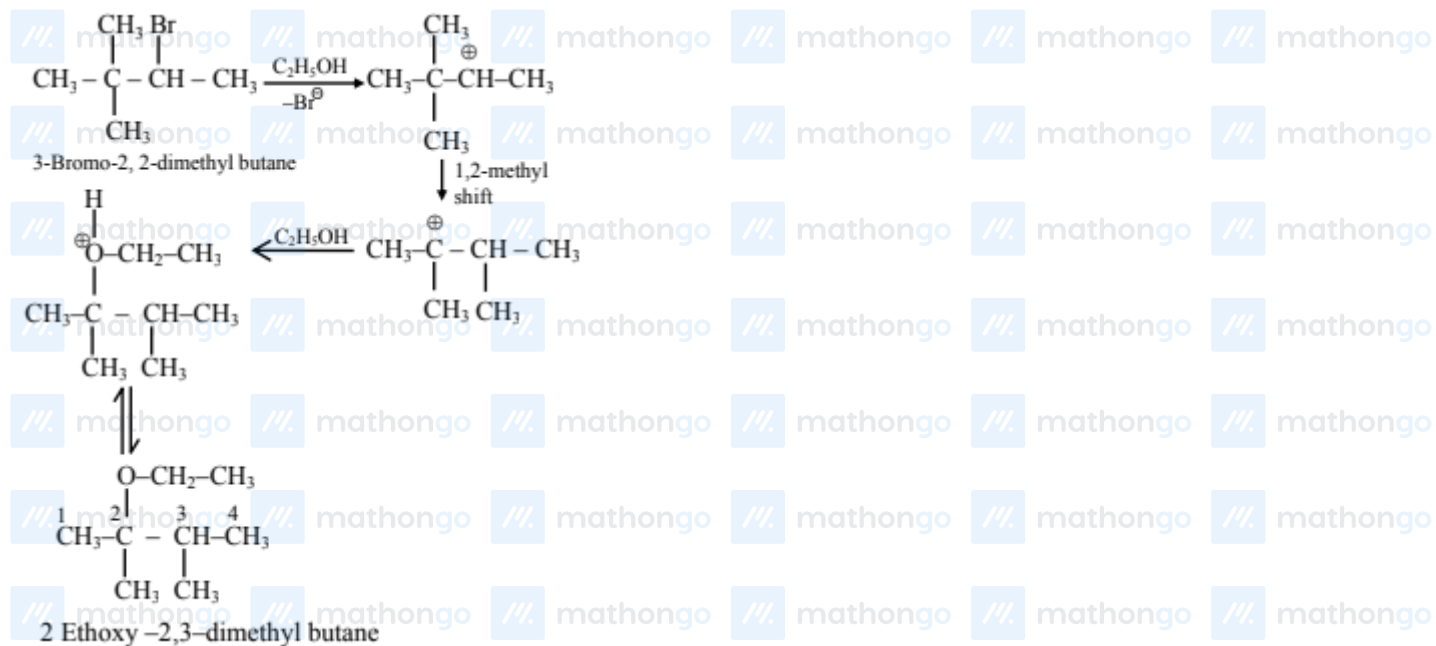
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Hints and Solutions

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Q1



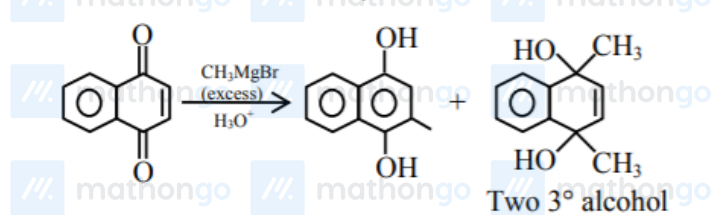
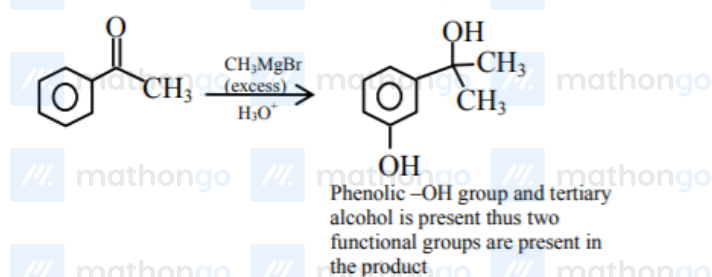
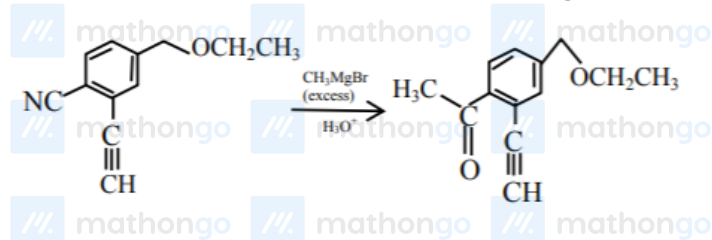
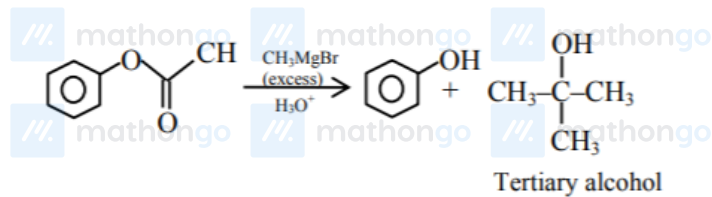
Q2



Q3

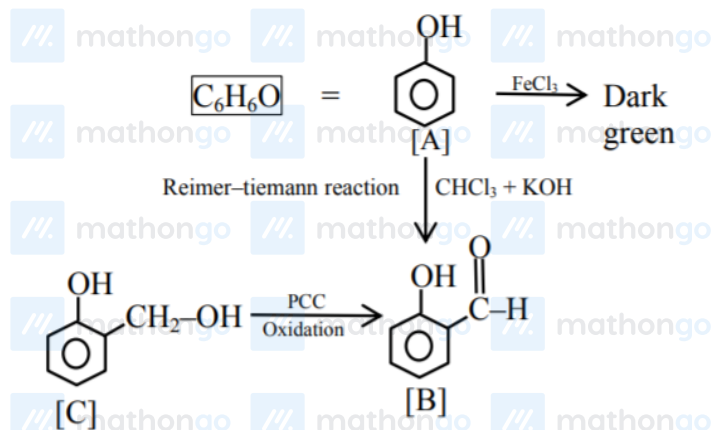
Hints and Solutions

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Since the given question is single correct choice the best appropriate option is (A)

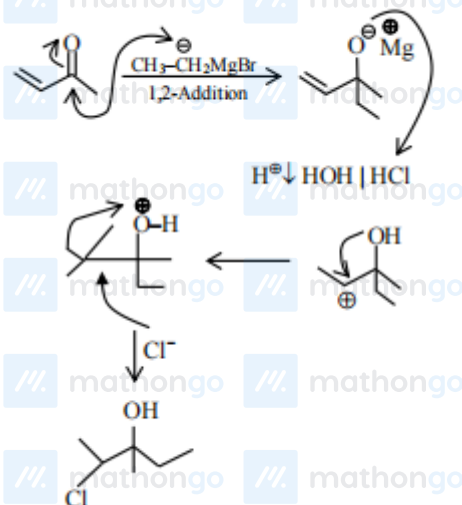
Q4



Hints and Solutions

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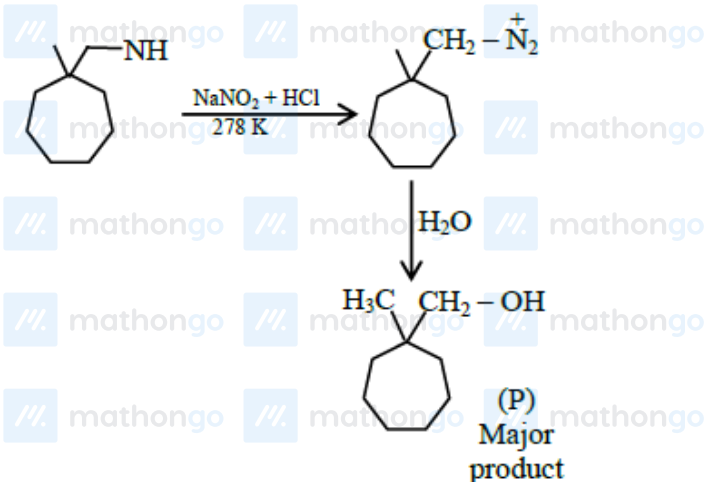
Q5



Q6

Bromine water gives tribromo products, other gives monobromo products in which para is major product.

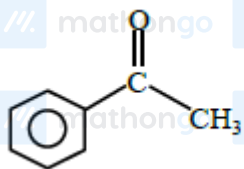
Q7



Q8

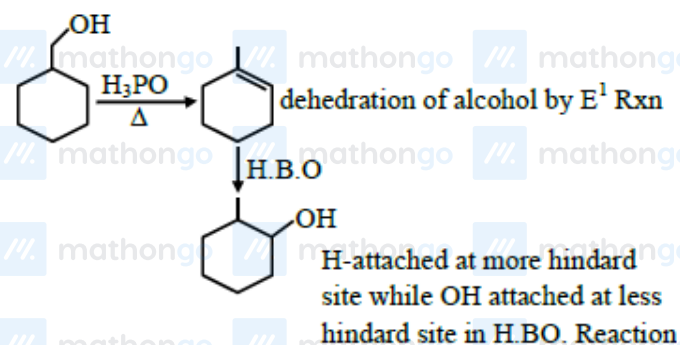
Hints and Solutions

MathonGo



Explanation \Rightarrow 2 - 4 -D.N.P test is used for carbonyl compound (aldehyde & ketone)

Q9



Q10

