



Federal Board HSSC-II Examination
Chemistry Model Question Paper

FBISE
WE WORK FOR EXCELLENCE

Roll No:

Answer Sheet No: _____

Signature of Candidate: _____

Signature of Invigilator: _____

SECTION – A

Time allowed: 20 minutes

Marks: 17

Note: Section-A is compulsory and comprises pages 1-6. All parts of this section are to be answered on the question paper itself. It should be completed in the first 20 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q.1 Insert the correct option i.e. A/B/C/D in the empty box opposite each part. Each part carries one mark.

i. Which one of the following alkaline earth metals forms peroxide on reaction with oxygen at 500-600°C?

- A. Beryllium
- B. Magnesium
- C. Calcium
- D. Barium

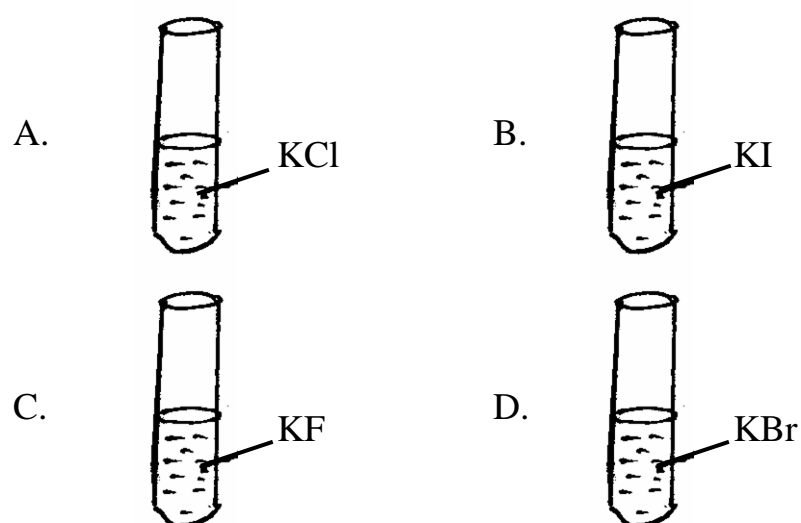
ii. The carbonate of which one of the following alkali metals is relatively less stable and decomposes on heating?

- A. Francium
- B. Lithium
- C. Sodium
- D. Potassium

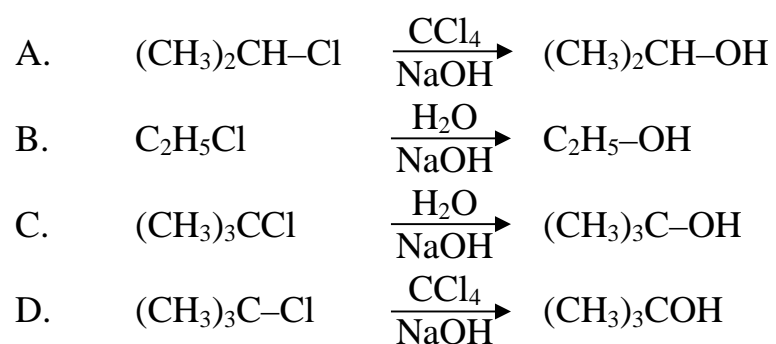
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- iii. Zinc is a transition element but it does not show variable valency because:
- A. it does not form coloured salts
 - B. it has two electrons in the outermost orbit
 - C. it has incomplete d-subshell
 - D. it has completely filled d-subshell
- iv. According to valence bond theory, what is the state of carbon atom in HCHO?
- A. sp hybridized
 - B. sp² hybridized
 - C. sp³ hybridized
 - D. Not hybridized
- v. When a piece of copper metal is dipped in concentrated nitric acid, a reddish brown gas is evolved, which is soluble in water. What is the name of the gas?
- A. Dinitrogen oxide
 - B. Nitrogen oxide
 - C. Nitrogen dioxide
 - D. Nitrous acid

- vi. Different Halogens have different oxidizing power. The following experiment is performed to find out their oxidizing power. Which of the following tubes, do you expect will give a change in colour, when Br₂ water is added to each tube?



- vii. Which of the following reactions is more likely to occur through SN¹ mechanism?

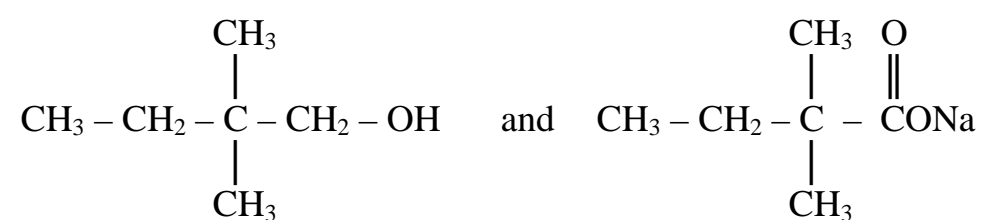


- viii. An Aldehyde when strongly heated with Fehling's reagent gives red ppt. What property of an aldehyde is observed in the above reaction?

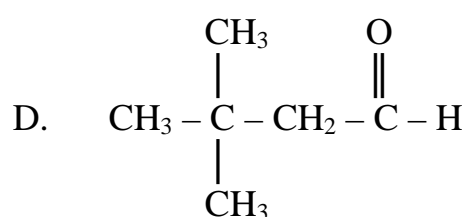
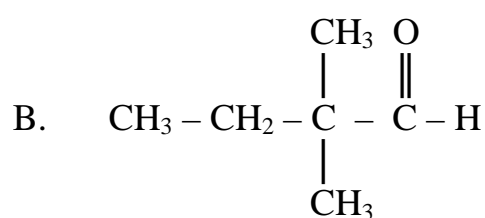
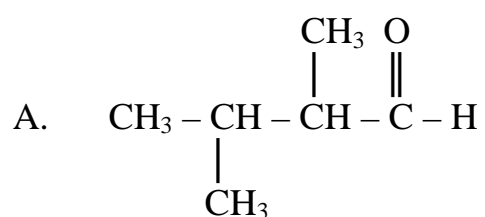
- A. Reducing property
 B. Oxidizing property
 C. Neutralizing ability
 D. Redox property

- ix. Which of the following compounds is a monomer of an addition polymer?
- A. C_2H_3Cl
B. C_2H_6O
C. C_6H_6
D. CH_2O
- x. The octane number of a poor fuel can NOT be improved by
- A. reforming process
B. cracking process
C. refining process
D. the addition of small amount of TEL
- xi. When ozone is treated with alkene, a variety of carbonyl compounds may be produced. Which one of the following will produce only butanone?
- A. 2-Butene
B. 3,4-Dimethyl-3-hexene
C. 3-Methyl-3-hexene
D. 2-Hexene
- xii. Grignard's reagent is used to synthesize organic compounds. When isopropyl magnesium bromide is treated with butanone followed by acid hydrolysis, which one of the following products will be formed?
- A. 3-Methyl-3-hexanol
B. 2-Methyl-3-hexanol
C. 4-Heptanol
D. 2, 3-Dimethyl-3-pentanol
- xiii. Which is the coagulant used for the purification of potable water?
- A. Alum
B. Chlorine
C. Calcium sulphate
D. Activated carbon

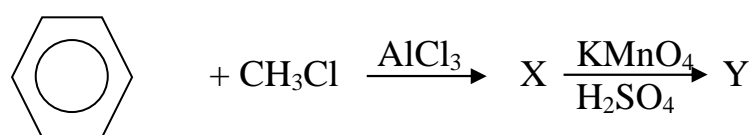
- xiv. An aldehyde forms following products on reaction with a strong base like NaOH



Which of the following will form the above products?



- xv. Identify the product Y in the following scheme:



- A. Toluene
 B. Xylene
 C. Benzoic acid
 D. Acetophenone

- xvi. What is the co-ordination of number Pt in $\text{Pt}[(\text{OH})_2(\text{NH}_3)_4]\text{SO}_4$?
- A. 4
B. -4
C. 6
D. 2
- xvii. Ammonium Nitrate is an important fertilizer for all types of crops except paddy rice. This is due to which of the following properties of ammonium nitrate?
- A. It is insoluble in water.
B. It is decomposed into N_2 gas in the presence of excess of water containing microbiological bacteria.
C. Nitrogen is not of much use in early growth of rice crop.
D. It does not alter the pH of the soil.
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For Examiner's use only

Q. No.1: Total Marks:

Marks Obtained: