

### **CHEMISTRY**

### **BOOKS - MBD -HARYANA BOARD**

# MBD MOST EXPECTED MODEL TEST PAPER

Objective Type Questions Choose The Correct Option Of The Following Multiple Choice Questions

1. What is the hybridization of Cr-in

$$\left[Cr(NH_3)_6\right]^{3+}$$
 ?

A. 
$$sp^3d^2$$

B. 
$$d^2sp^3$$

$$\mathsf{C.}\, dsp^2$$

$$\mathsf{D}.\,sp^3$$

**Answer: B** 



2. Wurtz	reaction	is	used	to	prepare	organic
compounds:						

- A. Alkanes
- **B.** Alcohols
- C. Haloalkanes
- D. None

#### **Answer: D**



3. The size of colloidal particles is in the range

A. 1 to 100 mm

B. Less than 1 nm

C. More than 100 nm

D. None.

**Answer: A** 



- **4.** Aspirin is:
  - A. Antibiotic
  - B. Analgesic
  - C. Tranquilizer
  - D. None

**Answer: B** 



**5.** Which base is present in RNA and not in DNA?

A. Guanine

B. Cytosine

C. Uracil

D. Thymine

**Answer: C** 



# Objective Type Questions Answer The Following Questions In One Or Two Sentences

1. Give the structure of monomer of Teflon:



**2.** What type of stoichiometric defect is shown by ZnS ?



**3.** What are isotonic solutions?



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**4.** Define Faraday (F).



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5. What are the unit of rate of a reaction?



**6.** Write the reaaction  $PCl_5$  with water.



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**7.** Give the IUPAC name of

$$CH \equiv C - CH = CH_2$$



8. What is Luca. reagent?



### Very Short Answer Type Questions

**1.** Briefly explain the effects of temperature on the solubility of solids in liquids.



**2.** What are crystalline solids ? Give two examples.



**3.** Name any two tests to distinguish Alcohol from Phenol.



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**4.** Calculate the standard EMF of a cell involving cell reaction.

$$Zn+2Ag^+
ightarrow Zn^{+\,+}+2Ag$$

Given

$$E_{Zn\,/\,Zn}^{\,\circ} = 0.76 V, E_{Ag\,/\,Ag^{\,+\,+}}^{\,\circ} = \,-\,0.80 V$$



5. Define adsorption. Give one example.



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6. p. Nitrophenol is more acidic than phenol.

Explain why?



**7.** Write the monomers used for preparing following polymers:

(i) glyptal (ii) Nylon-6,6



8. What are vitamins? Name any two vitamins.



**9.** What is carbylamines test for  $1^{\circ}$  amine?

10. Differentiate between minerals and ores.



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## **Short Answer Type Questions**

- 1. Define the terms:
- (i) Activation Energy (ii) Molecularity.
- (iii) Rate Constant.

**2.** Explain the mechanism of  $S_{N^2}$  reaction.



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- 3. Define the terms:
- (i) Biomolecules
- (ii) Carbohydrates
- (iii) Reducing Sugars.



**4.** Define chelate with example. Write the importance of chelate.



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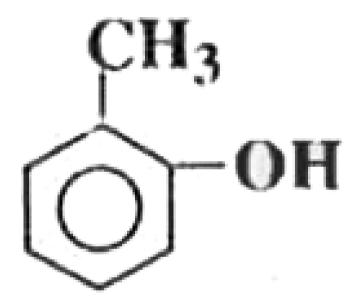
**5.** Give two methods of preparation of ketones and write the chemical reactions.



6. Write the IUPAC names of the following:

$$(i)CH_3CH - (CH_3) - CHO$$

(ii) 
$$_{-}$$
  $(6)H_{5}-CH_{2}-CHO$ 



(iii)



- 7. (a) Define ligand.
- (b) Give two examples for monodentate and bidentate ligands.



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### **Long Answer Type Questions**

- **1.** (a) What is Cannizaro's reaction? Write its mechanism.
- (b) Discuss the structure of carbonyl group.

- **2.** (a) Name three oxy-acids of phosphorus and draw their structures.
- (b) Discuss the anomalous behaviour of oxygen.



**3.** The chemical reaction of  $K_2Cr_2O_7$  with following:

- (i)  $H_2SO_4$  (ii) KOH (iii) KI.
- (b) What is chromly chloride test?



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- 4. (a) Write the chemical reaction of KMnO4 with:
  - (i) KI  $(ii)H_2S$   $(iii)FeSO_4$
- (b) Draw the structure of  $MnO_4^-$ ,



- **5.** (a) Explain the magnetic behaviour of transition metals.
- (b) Write the electronic configuration of Ni(28), Zn(30).

