

**MP BOARD CLASS 12 CHEMISTRY
PREVIOUS YEAR QUESTION -2017**

A-435 (E/H)

CHEMISTRY 2017

Time : 3 Hours |

Class : 12th

| M. M. : 75

Instructions :

- (i) Attempt all questions.
- (ii) Question Nos. 1 to 4 are objective types. Carries total 20 marks.
- (iii) Question Nos. 5 to 8, each question carries 2 marks. (word limit 30 words)
- (iv) Question Nos. 9 to 12, each question carries 3 marks (word limit 75 words)
- (v) Question Nos. 13 to 17, each question carries 4 marks. (word limit 120 words)
- (vi) Question Nos. 18 to 20, each question carries 5 marks. (word limit 150 words)
- (vii) Internal choice is given to question Nos. 5 to 20.

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Q.1. Choose the correct option: 5 × 1 = 5

- (a) If coordination number of Cs^+ is 8 in CsCl then coordination number of Cl^- ion is-
- (a) 8 (b) 4
(c) 6 (d) 12
- (b) Unit of cell constant is :
- (a) $\text{ohm}^{-1} \text{cm}^{-1}$ (b) cm
(c) ohm cm (d) cm^{-1}
- (c) The rate of chemical reaction depends upon-
- (a) Active mass (b) Atomic mass
(c) Equivalent weight (d) Molecular mass
- (d) Adsorption process is-
- (a) Exothermic (b) Endothermic
(c) No heat change (d) None of these
- (e) Which has maximum electron affinity-
- (a) Fluorine (b) Chlorine
(c) Bromine (d) Iodine

Q.2. Fill in the blanks: 5 × 1 = 5

- (a) There are.....type of crystal system.
- (b) The substance on whose surface adsorption takes place is called.....
- (c) Chemical formula of corrosive sublimate is
- (d) Magnetic property of noble gases is.....
- (e) The formula of antiknock organometallic substance is.....

Q.3. Write answer in one word of each: 5 × 1 = 5

- (a) Write Bragg's equation.
- (b) Which bond links amino acids together.
- (c) Write the formula of benzene diazonium chloride.
- (d) Write oxidation state of iron in $[\text{Fe}(\text{CN})_6]^{3-}$.
- (e) Which noble gas forms maximum compounds?

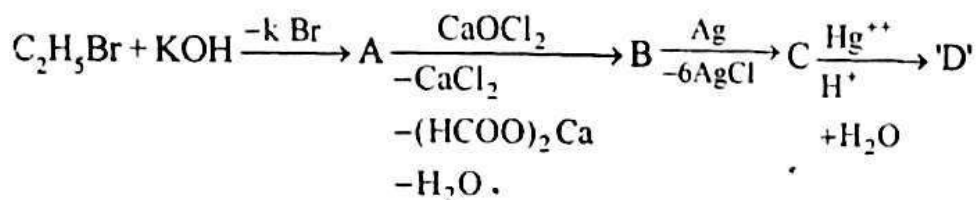
Q.4. Match the pairs correctly: 5 × 1 = 5

- | Column 'A' | Column 'B' |
|---------------------------|----------------------------|
| (a) Smell of mustard oil | (i) Biotin |
| (b) Explosive | (ii) Glass |
| (c) Hair fall | (iii) Methylisothiocyanate |
| (d) Amorphous solid | (iv) T.N.T. |
| (e) Heteropolysaccharides | (v) NaCl |
| | (vi) Glycogen |

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- Q. 5. What is peptization? 2
(OR) Why is sky blue in colour?
- Q. 6. Explain why Ionisation energy of noble gases are highest. 2
(OR) Why elements of group 17 are called halogen.
- Q. 7. What is effective atomic number. Explain with examples. 2
(OR) Write the IUPAC names of the following compounds.
(i) $K_2[HgI_4]$ (ii) $[Ag(NH_3)_2]Cl$
- Q. 8. What are carbohydrates? Give types of carbohydrates. 2
(OR) Write the diseases which are caused by lack of following vitamins:
(i) Vitamin A (ii) Vitamin D
- Q. 9. Differentiate between molarity and molality (any three). 3
(OR) Write three differences in solution having positive deviation and negative deviation.
- Q. 10. If 4 gm. NaOH is present in 500 ml solution then determine the normality of the solution. 3
(OR) Explain the following terms:
(i) Formality (ii) Parts per million (iii) Osmotic pressure
- Q. 11. What are inner transition elements. 3
(OR) Transition elements are good catalysts explain.
- Q. 12. Write three differences between Lanthanides and Actinides. 3
(OR) Describe the preparation of $KMnO_4$ from Pyrolusite with equation.
- Q. 13. Describe four factors affecting rate of a reaction. 4
(OR) What is half-life period of a reaction? Calculate half-life period of a first order reaction.
- Q. 14. Write the reaction taking place in blast furnace when haematite is converted into pig iron with diagram. 4
(OR) Write four different chemical reaction of copper with nitric acid. Give equations also.
- Q. 15. An alcohol 'A', on reaction with conc H_2SO_4 gives an alkane 'B'. 'B' after Bromination with sodamide give dehydrogenated compound 'C'. 'C' on reaction of H_2SO_4 in presence of $HgSO_4$ gives 'D'. Identify 'A', 'B', 'C' & 'D'. 4

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- Q. 16. Differentiate between phenol and alcohol (any four) 4
(OR) Explain the following.
(i) Lucas reagent (ii) Reimer- Tiemann reaction.
- Q. 17. Write short notes on the following. 4
(i) Perkin reaction (ii) Urotropine
(OR) What happen when (Give only equation).
(i) Acetone reacts with conc. H₂SO₄.
(ii) Benzoic acid reacts with SOCl₂.
(iii) Acetic acid reacts with ammonia.
(iv) Acetic acid reacts with caustic soda.
- Q. 18. What is Kohlrausch laws give its any one applications. 5
(OR) What is standard hydrogen electrode? How it is made?
- Q. 19. Write formulas and structures of five oxy acids of sulphur. 5
(OR) Describe Brodies' ozonizer with diagram.
- Q. 20. Write short notes on the following. 5
(i) Charak (ii) Nalanda Vishwa Vidyalaya
(OR) Explain in brief the following-
(i) Anti-fertility drugs. (ii) Disinfectants.
(iii) Sulpha drugs. (iv) Analgesic
(v) Antipyretics.