

Chemistry



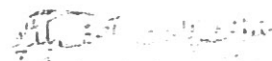
BHN

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Note : Four possible choices A, B, C, D to each question are given. Which choice is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

Q.No.1	Which of the following Sulphates is not soluble in water :
(1)	(A) Sodium Sulphate (B) Potassium Sulphate (C) Zinc Sulphate (D) Barium Sulphate
(2)	Which statement is incorrect : (A) All the metals are good conductor of electricity (B) All the metals are good conductor of heat (C) All the metals form positive ions (D) All the metals form Acidic Oxides
(3)	Boric Acid can not be used : (A) As Antiseptic in Medicines (B) For Washing Eyes (C) In Soda Bottles (D) For Enamels and Glazes
(4)	Laughing Gas is chemically : (A) NO (B) N ₂ O (C) NO ₂ (D) N ₂ O ₄
(5)	A Double Bond consist of : (A) Two Sigma Bonds (B) One Sigma and One Pi Bond (C) Two Pi Bonds (D) One Sigma and Two Pi Bonds
(6)	The Strength of Binding Energy of Transition Elements depend upon : (A) Number of Electron Pairs (B) Number of Unpaired Electrons (C) Number of Neutrons (D) Number of Protons
(7)	The Anhydride of HClO ₄ is : (A) ClO ₃ (B) ClO ₂ (C) Cl ₂ O ₅ (D) Cl ₂ O ₇
(8)	Formula of Chloroform is : (A) CH ₃ Cl (B) CCl ₄ (C) CH ₂ Cl ₂ (D) CHCl ₃
(9)	Rectified Spirit contains Methyl Alcohol about : (A) 80 % (B) 85 % (C) 90 % (D) 95 %
(10)	For which mechanisms, the first step involved is the same : (A) E1 and E2 (B) E2 and S _N 2 (C) S _N 1 and E2 (D) E1 and S _N 1
(11)	The Electrophile in Aromatic Sulphonation is : (A) H ₂ SO ₄ (B) HSO ₄ (C) SO ₃ (D) SO ₃ ⁺
(12)	Which of the following will have highest Boiling Point : (A) Methanal (B) Ethanal (C) Propanal (D) 2-Hexanone
(13)	Which is not a Calcareous Material : (A) Lime (B) Clay (C) Marble (D) Marine Shell
(14)	The pH range of Acid Rain is : (A) 7 -- 6.5 (B) 6.5 -- 6 (C) 6 -- 5.6 (D) Less than 5
(15)	Which of the following Derivatives can not be prepared directly from Acetic Acid : (A) Acetamide (B) Acetyl Chloride (C) Aceticanhydride (D) Ethyl Acetate
(16)	The main pollutant of Leather Tanneries in the waste water is due to the salt of : (A) Lead (B) Chromium (VI) (C) Copper (D) Chromium (III)
(17)	Vegetable Oils are : (A) Unsaturated Fatty Acids (B) Glycerides of Unsaturated Fatty Acids (C) Glycerides of Saturated Fatty Acids (D) Essential Oils obtained from Plants

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Roll No. (Group Ist)	915 - 3000	Session (2015 - 2017) to (2016 - 2018)	Inter (Part - II)
Chemistry (Subjective)	Inter - A - 2018	Time : 2:40 Hours Marks : 68	New Pattern

Note: It is compulsory to attempt any (8-8) parts each from Q.No.2 and Q.No.3 and attempt any (6) parts from Q. No.4
 attempt any (03) questions from Part II Write same Question No. and its Part No. as given in the question paper.

Make diagram where necessary.

Part - I

BHW

22 x 2 = 44

Q.No.2 (i) Negative Ion is always bigger in size than its Parent Atom, why?

(ii) What is the role of Shielding Effect on Ionization Energy?

(iii) BeO is amphoteric in nature. Justify.

(iv) Write two uses of Boric Acid.

(v) How does Aluminium react with : (a) NaOH (b) H_2SO_4

(vi) Why are Liquid Silicones preferred over Ordinary Organic Lubricants?

(vii) How does P_2O_5 react with Water in Cold State and Hot State?

(viii) Write formulae of given Ores : (a) Copper Pyrites (b) Galena

(ix) How does Conc. HNO_3 react with : (a) Cu (b) H_2S

(x) How Detergents Pollute Water?

(xi) Write names of two Primary and two Secondary Pollutants.

(xii) What are Alicyclic Compounds? Give two examples.

Q.No.3 (i) How Chromate Ions are converted into Dichromate ions?

(ii) What do you mean by Co-ordination Number and Co-ordination Sphere?

(iii) State Markownikov's Rule with a suitable example.

(iv) Why Alkynes are slightly Acidic in nature? Justify with an example.

(v) What are the main points given by Kekule for structure of Benzene?

(vi) The order of reactivity of Alkylhalides is : $R-I > R-Br > R-Cl > R-F$
 Explain with reason.

(vii) Absolute Alcohol can not be prepared by Fermentation Process, why?

(viii) What is Williamson's Synthesis for Ether Preparation?

(ix) Why Formal Dehyde does not show Aldol Condensation?

(x) What is Iodoform Test? Give two uses of it.

(xi) What do you mean by Zwitter Ion? Draw its structure.

(xii) Differentiate between Acidic Amino Acids and Basic Amino Acids.

Q.No.4 (i) In what ways, fats and oils are different? Give an example.

(ii) What are important sources of fats and oils?

(iii) How Enzymatic Reactions are affected by change of temperature?

(iv) What are Essential Nutrients? Why are they needed for Plant Growth?

(v) What are essential Non-Woody Raw Materials used in the production of Paper in Pakistan?

(vi) How NH_3 is given to the Plants? Give its composition.

(vii) What is Iodized Salt?

(viii) Give at least four applications of Noble Gases.

(ix) Complete the following reactions :



Part - II

Q.No.5 (a) Define Electron Affinity with an example. Why Second and Higher Electron Affinities are with positive sign? Justify your answer with suitable example. (4)

(b) What is the role of Gypsum in Agriculture? (4)

Q.No.6 (a) Describe the manufacture of Wrought Iron from Cast Iron. (4)

(b) What is Acid Rain? Write its causes and how does it affect our Environment. (4)

Q.No.7 (a) What is Orbital Hybridization? Explain the structure of Ethane on the basis of sp^3 Hybridization. (4)

(b) Write two commercial and two laboratory methods of preparation of Benzene. (4)

Q.No.8 (a) Prepare Ethane and Ethene by Kolbe's Electrolytic Method with their Mechanisms. (4)

(b) How will you prepare C_2H_5OH from : (a) Molasses (b) Starch (4)

Q.No.9 (a) Write a detailed note on S_N2 reactions of Alkylhalides. (4)

(b) Define Aldol. Discuss Aldol Condensation with mechanism. (4)