Chemistry

Paper II (Objective Type)

Time : 20 Minutes

Marks : 17

A

L.K.No. 915

(Inter - A - 2018)

Inter(Part - II)

Session (2015 - 2017) to (2016 - 2018)

Paper Code No. 8481

New Pattern

Group Ist

Bwp-12-G1-18

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	Boric Acid can not be used :
(1)	(A) As Antiseptic in Medicines (B) For Washing Eyes (C) In Soda Bottles (D) For Enamels and Glazes
(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 forms positive ions (D) All the metals form Acidic Oxides
(3)	Which of the following Sulphates is not soluble in water : (A) Sodium Sulphate (B) Potassium Sulphate (C) Zinc Sulphate (D) Barium Sulphate
(4)	Laughing Gas is chemically : (A) NO (B) N_2O (C) NO_2 (D) N_2O_4
(5)	The Anhydride of $HClO_4$ is : (A) ClO_3 (B) ClO_2 (C) Cl_2O_5 (D) Cl_2O_7
(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)	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
(8)	Formula of Chloroform is : (A) CH_3Cl (B) CCl_4 (C) CH_2Cl_2 (D) $CHCl_3$
(9)	The Electrophile in Aromatic Sulphonation is : (A) H_2SO_4 (B) HSO_4 (C) SO_3 (D) SO_3^+
(10)	For which mechanisms, the first step involved is the same : (A) E1 and E2 (B) E2 and S_N2 (C) S_N1 and E2 (D) E1 and S_N1
(11)	Rectified Spirit contains Methyl Alcohol about : (A) 80 % (B) 85 % (C) 90 % (D) 95 %
(12)	Which of the following will have highest Boiling Point : (A) Methanal (B) Ethanal (C) Propanal (D) 2 - Hexanone
(13)	Which of the following Derivatives can not be prepared directly from Acetic Acid : (A) Acetamide (B) Acetyl Chloride (C) Aceticanhydride (D) Ethyl Acetate
(14)	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
(15)	Which is not a Calcarious Material : (A) Lime (B) Clay (C) Marble (D) Marine Shell
(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)	The pH range of Acid Rain is : (A) 7 --- 6.5 (B) 6.5 ---- 6 (C) 6 --- 5.6 (D) Less than 5

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Roll No. (Group Ist)	915 -	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** 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 Schielding 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 :

(a) $KClO_4(s) + H_2SO_4(conc.) \xrightarrow{\Delta} ?$ (b) $XeF_6 + H_2 \longrightarrow ?$

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)

Chemistry | D | L.K.No. 916 | Paper Code No. 8488

Paper II (Objective Type) | (Inter - A - 2018) | New Pattern

Time : 20 Minutes | Inter(Part - II) | Group 2nd

Marks : 17 | Session (2015 - 2017) to (2016 - 2018)

Bwp-12-Ga2-18

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 (1)	Mark the Correct Statement : (A) Na^+ is smaller than Na Atom (B) Na^+ is larger than Na Atom (C) Cl^{-1} is smaller than Cl Atom (D) Cl^{-1} (ion) and Cl (atom) are equal in size.
(2)	Which Catalyst is used in Contact Process : (A) Fe_2O_3 (B) V_2O_5 (C) SO_3 (D) Ag_2O
(3)	Aluminium Oxide is : (A) Acidic (B) Basic (C) Neutral (D) Amphoteric
(4)	Which of the following Sulphate is not Soluble in water : (A) Sodium Sulphate (B) Potassium Sulphate (C) Zinc Sulphate (D) Barium Sulphate
(5)	The Anhydride of $HClO_4$ is : (A) ClO_3 (B) ClO_2 (C) Cl_2O_5 (D) Cl_2O_7
(6)	Vinyl Acetylene Combines with HCl to form : (A) Polyacetylene (B) Benzene (C) Chloroprene (D) Divinyl Acetylene
(7)	Which set of Hybrid Orbital has Triangular Shape : (A) Sp^3 (B) Sp^2 (C) Sp (D) dSp^2
(8)	The Strength of the Binding Energy of Transition Elements depends upon : (A) Number of Electron Pairs (B) Number of Unpaired Electrons (C) Number of Neutrons (D) Number of Protons
(9)	The Electrophile in Aromatic Sulphonation is : (A) H_2SO_4 (B) HSO_4 (C) SO_3 (D) SO_3^+
(10)	The Carbon Atom of Carbonyl Group is : (A) Sp Hybridized (B) Sp^2 Hybridized (C) Sp^3 Hybridized (D) dSp^2 Hybridized
(11)	Which compound is called a Universal Solvent : (A) H_2O (B) CH_3-O-CH_3 (C) C_2H_5OH (D) CH_3OH
(12)	Elimination Bimolecular Reactions involve : (A) Zero Order Kinetics (B) First Order Kinetics (C) Third Order Kinetics (D) Second Order Kinetics
(13)	Which is a Neutral Amino Acid : (A) Lysine (B) Histidine (C) Glycine (D) Glutamic Acid
(14)	Ecosystem is a smaller unit of : (A) Biosphere (B) Lithosphere (C) Hydrosphere (D) Atmosphere
(15)	Phosphorus helps the growth of : (A) Root (B) Leave (C) Stem (D) Seed
(16)	Which of these Polymers is a Synthetic Polymer : (A) Animal Fat (B) Starch (C) Cellulose (D) Polyester
(17)	In Purification of Potable Water the Coagulant used is : (A) Nickel Sulphate (B) Alum (C) Barium Sulphate (D) Copper Sulphate

B

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Roll No. (Group 2nd)	916 - 6000+800	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 | BWP-12-Gr2-18 | 22 x 2 = 44

Q.No.2 (i) Why the Second Value of Electron Affinity of an element is usually shown with a positive sign?

(ii) What are Amphoteric Oxides ? Give two examples.

(iii) Why 2 % Gypsum is added in grinding during the process of manufacturing of Cement?

(iv) What is the effect of Heat on Boric Acid?

(v) Write any two points of importance of Oxides of Lead in Paints.

(vi) Write down formulae of : (a) Litharge (b) Red Lead

(vii) Write two points of differences between Red and White Phosphorus.

(viii) Write two reactions to show that H_2SO_4 acts as Oxidizing Agent.

(ix) How does P_2O_3 react with Water in Cold State and Hot State?

(x) What is meant by Hydrosphere ? Give two examples of its sources.

(xi) Write down the conditions which are required for the formation of Smog.

(xii) Define Geometric Isomerism with a suitable example.

Q.No.3 (i) Why does damaged Tin Plated Iron get rusted quickly?

(ii) What is meant by Sacrificial Corrosion?

(iii) What is Baeyer's Test ? Explain it giving an example.

(iv) Why does Alkynes are Less Reactive than Alkenes towards Electrophilic Reagents?

(v) What is General Pattern of Reactivity of Benzene towards an Electrophile?

(vi) Prepare following compounds from Ethyl Magnesium Bromide :
(a) Propanoic Acid (b) 1 - Propanol

(vii) What are essential conditions for the fermentation process in order to prepare Ethanol ?

(viii) What is meant by Denaturing of Alcohol and Wood Spirit?

(ix) What is Silver Mirror Test? Give an example.

(x) Give Iodoform Test to distinguish Ethanol from Methanol.

(xi) What is Zwitter Ion? Why it is called an Internal Salt?

(xii) What is Peptide Bond? Give formula of a Dipeptide.

Q.No.4 (i) What is Nylon 6 , 6 ? How is it prepared?

(ii) Differentiate between Fats and Oils.

(iii) Define Iodine Number.

(iv) What are essential Nutrient Elements? Why are these needed for Plant Growth?

(v) Discuss reactions taking place for setting of Cement in 1 to 7 days.

(vi) Write down two essential qualities of a good fertilizer.

(vii) Give chemical reactions of Chlorine with Cold Dilute and Hot Concentrated Solution of NaOH.

(viii) What is Teflon ? Give its two uses.

(ix) What is Iodized Salt ?

Part - II

Q.No.5 (a) Discuss Mendeleev's Periodic Law and give its advantages. (4)

(b) Describe the manufacture of Sodium Hydroxide by Diaphragm Cell. Diagram is not required. (4)

Q.No.6 (a) What are the main causes of Corrosion? Write two methods to prevent Corrosion. (4)

(b) What is Smog? Write three conditions for the formation of Smog. (4)

Q.No.7 (a) Write a note on Reforming of Petroleum. (4)

(b) Explain the structure of Benzene on the basis of Atomic Orbital Treatment. (4)

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

(b) How will you prepare C_6H_5OH by : (4)
(a) Dow's Method (b) Sodium Salt of Benzene Sulphonic Acid

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

(b) How does Acetaldehyde react with : (a) C_2H_5MgBr (b) HCN (c) $NaHSO_3$ (d) NH_2OH (4)