Sahaj Adhyayan (सहज अध्ययन)

जर हे Practice Question Papers तुम्हाला खरंच फायदेशीर वाटत असतील तर तुमच्या सर्व मित्र मैत्रिणींना पाठवा.

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जर तुमच्या जवळ कोणत्याही इयत्तेच्या, कोणत्याही परीक्षेच्या, कोणत्याही विषयाचे, Question Papers असतील

तर ते आम्हाला WhatsApp वर पाठवा,

इतर विद्यार्थी मित्रांना त्या सर्वांचा उपयोग होईल.

FIRST SEMESTER EXAMINATION

Class : 11th

Time : 2.30 Hrs.] Subject : CHEMISTRY [Marks : 50

Note : General Instructions :

(1) All questions are compulsory.

(2) Section-A contains (MCQ) Q.1 to Q.3 of multiple choice type questions carrying one mark each Q.4 to 6 are very short answer type questions carrying one mark each.

(3) Section-B contains Q.7 to Q.11 of short answer type questions carrying two marks each. Internal choice is provided to only one question.

(4) Section-C contains Q.12 to Q.19 of short answer type questions carrying three marks each. Internal choice is provided to only one question.

(5) Section-D contains Q.20 to Q.21 of long answer carrying five marks each. Internal choice is provide to each questions.

(6) Use log table if necessary.

Section – A

Q.1. The geometry of a carbocation is ..... **(1)**

(a) Linear (b) Planar

(c) Tetrahedral (d) Octahedral

Q.2. S.I. unit of temperature is ..... **(1)**

(a) Celsius (b) Kelvin

(c) Fahrenheit (d) Dalton

Q.3. The energy difference between the shells goes on ....., when moved away from the nucleus. **(1)**

(a) quereasing (b) decreasing

(c) equalizing (d) static

Q.4. What is bond length? (1)

Q.5. What mother liquor? (1)

Q.6. What is electronegativity? (1)

Section – B

Q.7. Differentiate between Isotopes and Isobars. (2)

(OR)

State Hund's rule of maximum multiplicity with suitable example.

Q.8. Calculate the oxidation number of underlined atoms. (2)

(a) $H_2\underline{S}O_4$ (b) $H_3\underline{P}O_3$

(Given oxidation number :- $H = +1$, $O = -2$)

Q.9. Name the following functional group and write one compound for each of these functional group. (2)

(1) $-NH_2$ (2) $>C=O$

Q.10. Why there is a need of rounding off figures during calculation? Define stoichiometry. (2)

Q.11. What do you understand by the terms (2)

(a) residue (b) Filtrate

Section – C

Q.12. A compound with molar mass 15 g was found to contain 39.62% copper and 20.13% sulfur. Suggest molecular formula for the compound. (Atomic mass :- Cu = 63, S = 32, O = 16) (3)

Q.11. write the characteristics of s Block.

(OR)

How much CaO will be produced by decomposition of 5 g. $CaCO_3$? How many significant figures are present in following measurements?

(a) 4.065 m (b) 604.0820 kg

Q.12. Identity no. of protons Neutron following of electron of Nuclids

Q.13. Distinguish between electrophile and nucleophile. (3)

Define Homologous series.

Q.14. Explain law of conservation of mass with example. (3)

What is mole?

(a) $^{23}_{11}Na$

Q.15. Why the second ionization enthalpy is greater than the first ionization enthalpy? (3)

What are transuranium elements?

(b) $^{11}_{5}B$

(c) $^{19}_{9}F$

Q.16. Explain Rutherford's alpha particle scattering experiment with diagram. (3)

Q.17. Calculate the number of moles and molecules of acetic acid (CH_3COOH) present in 22 g. of it. (3)

Q.18. Define Octate rule. (3)

Explain sigma (σ) bond is stronger than Pi (π) bond.

Q.19. What is redox reaction? Explain with example. (3)

Section – B

Q.20. (5)

(i) Explain Geometry of methane molecules on the basis of Hybridisation.

(ii) Predict the shape and bond angles in the following molecules.

(a) H_2S (b) NF_3

Q.10. state the law of Modern periodic table.

(OR)

(i) Explain incomplete and expanded octet with example.

(ii) Write any four postulates of valence bond theory.

Q.21. (5)

(i) Write the bond line formulae of following compounds.

(a) 3–methyloctane

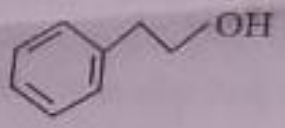
(b) hept–2–ene

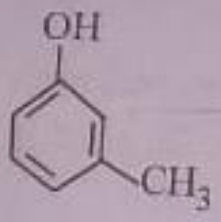
(c) 2, 2, 4, 4 – tetramethyl pentane.

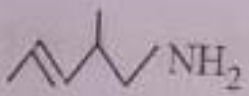
(ii) What is inductive effect and resonance effect?

(OR)

(i) Write the IUPAC names of the following.

(a) 

(b) 

(c) 

Q 17. write the characteristics of P Block = [AR] $n=3s^1$

Q 20. Write the structure of Modern periodic table

(ii) Explain Fischer projection formula with example.

Q.21. define Matter and write the classification of Matters.

Q.15 write the Condense Orbital Rotation of following elements

(a) 19K (b) 6C (c) 7N