QP CODE: D1BCH2401

Name: .....
Reg.No.: .....

FIRST SEMESTER FYUGP EXAMINATION NOVEMBER 2024

MAJOR

CHE1CJ 101 INORGANIC CHEMISTRY -1

Time : 2 Hrs BL : Bloom's Taxonomy Level (1 to 6) CO : Course Outcome **Maximum Marks : 70**

Section A Ceiling Marks : 24

Answer all questions. Each carries 3 marks.

No.	Question	M	BL	CO
1.	Give two examples each for behavioral sciences and social sciences.	3	2	CO1
2.	Give methods for the correction of determinate errors.	3	3	CO1
3.	Give mathematical expression for standard deviation.	3	1	CO1 CO6
4.	What is scientific research?	3	2	CO1
5.	Compare the bond orders and stabilities of O2, O2- and O2+.	3	5	CO2
6.	Why zeolites are called molecular sieves?	3	3	CO3 CO4
7.	How can the chlorine atoms of polychlorophosphazene be replaced by methoxy group?	3	4	CO3
8.	Pyrex glass is used for making laboratory glassware and cookware. Why?	3	5	CO4
9.	Mention two important points with regard to safe storage and safe handling of laboratory chemicals.	3	3	
10.	What is to be done when bromine comes into skin contact?	3	6	CO5

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Section B Ceiling Marks : 36

Answer all questions. Each carries 6 marks.

No.	Question	M	BL	CO
11.	What do the terms ‘absolute error’ and ‘relative error’ mean with regard to analytical determinations? The true value for the determination of the NaOH in a given aqueous solution of it is 4.012 g L-1. The result reported by an experimentalist is found to be 3.982 g L-1. Calculate the absolute error and relative percentage error.	6	5	CO1 CO6
12.	Explain the terms abstract, keywords and introduction in a research paper.	6	5	CO1

13.	Explain the variation of electron affinity along a period.	6	4	CO2
14.	How can you predict the ionic character of a covalent bond?	6	5	CO2
15.	What are zeolites? Write any two applications of zeolites.	6	4	CO3
16.	Explain the significance of "'S phrases' on the MSDSs of chemicals.	6	2	CO5
17.	Discuss the principles of iodimetric and iodometric titrations.	6	2	CO5
18.	Phenolphthalein is not a suitable indicator for titrating hydrochloric acid and ammonium hydroxide. Why? Explain with titration curves.	6	3	CO5

Section C

Answer any one question. Each carries 10 marks. (1x10=10 marks)

No.	**Question**	**M**	**BL**	**CO**
19.	Discuss bonding in HCl, HF and LIF based on MOT.	10	2	CO2
20.	Give details of the manufacture of Portland cement. Explain the chemistry of the process of setting of cement.	10	4	CO4

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