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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute)

Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

B.Tech

FIRST YEAR (SEMESTER-II) THEORY EXAMINATION (2020-2021)

(Objective Type)

Subject Code: AAS0202

Subject: Engineering Chemistry

Max. Mks. : 70

Time : 70 Minutes

General Instructions:

All questions are compulsory.

Question No- 1 to 15 are objective type question carrying 2 marks each.

Question No- 16 to 35 are also objective type/Glossary based question carrying 2 marks each.

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty	Correct	Option1	Option2	Option3	Option4
1	The lubrication used in high-load & high-speed operation is		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Extreme pressure lubrication	Thick film lubrication	Thin film lubrication	Extreme pressure lubrication	Enzyme lubrication
2	Which stage of vehicle emission norms presently applicable in India in Internal combustion engine		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Bharat Stage VI	Bharat Stage III	Bharat Stage V	Bharat Stage VI	Bharat Stage IV
3	Calculate the degree of freedom in the following system: A mixture of benzene and water		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	2	0	1	2	3
4	Which of the following method is also known as Deionization / demineralization process		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Ion Exchange Process	Calgon Process	Zeolite Process	Ion Exchange Process	Reverse Osmosis
5	How many grams of MgCO3 dissolved per litre gives 84 ppm hardness		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	70.56 mg/L	70.56 mg/L	48.23 mg/L	81.49mg/L	66.12 mg/L
6	Select the incorrect statement from the following option		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	The noise levels of fuel cells are high	Fuel cells have high efficiency	The emission levels of fuel cells are far below the permissible limits	Fuel cells are modular	The noise levels of fuel cells are high
7	The anode of the galvanic cell has _____		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Negative polarity	Positive polarity	Negative polarity	No polarity	Neutral
8	The full form of LCD is _____		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Liquid Crystal Display	Liquid Crystal Display	Liquid Crystalline Display	Logical Crystal Display	Logical Crystalline Display
9	The fibre obtained by the step polymerization of hexa methylene diamine & adipic acid		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Nylon 6,6	terylene	Nylon 6,6	Nylon 6	Bakelite
10	Which of the following is a copolymer		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Urea formaldehyde	PVC	Polyethylene	Urea formaldehyde	Teflon
11	Which polymers occur naturally		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Starch and Proteins	Starch and Nylons	Starch and Proteins	Protein and Nylons	Proteins and PVC
12	For a particular vibrational mode to appear in the Raman spectrum, what must change		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Molecule’s polarizability	Frequency of radiation	Intensity of radiation	Molecule’s shape	Molecule’s polarizability

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty	Correct	Option1	Option2	Option3	Option4
13	Schottky defect is observed in crystals when _____.		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	the equal number of cations and anions are missing from the lattice	some cations move from their lattice site to interstitial sites.	some lattice sites are occupied by electrons	the equal number of cations and anions are missing from the lattice	some impurity is present in the lattice
14	A hole in a semiconductor is defined as ……………		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	The incomplete part of an electron pair bond	A free electron	The incomplete part of an electron pair bond	A free proton	A free neutron
15	The process of burning of fuels in presence of oxygen is called		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Combustion	Induction	Ignition	Condensation	Combustion
16	Biogas is a mixture of gases having _____ as a predominant component		Glossary I	Glossary I	2		Single Choice	Brilliant	Methane	Nitrogen	Methane	extreme pressure	thin film
17	Kjeldahl method is used for determination of _____.		Glossary I	Glossary I	2		Single Choice	Brilliant	Nitrogen	Nitrogen	Methane	extreme pressure	thin film
18	_____ lubrication is used under high load and slow speed		Glossary I	Glossary I	2		Single Choice	Brilliant	thin film	Nitrogen	Methane	extreme pressure	thin film
19	_____ lubrication is used under high load and high speed		Glossary I	Glossary I	2		Single Choice	Brilliant	extreme pressure	Nitrogen	Methane	extreme pressure	thin film
20	The hard deposits firmly sticking to the inner surface of the boiler is-------		Glossary II	Glossary II	2		Single Choice	Brilliant	Scale	Priming	Scale	Sludge	Foaming
21	The soft, loose and slimy precipitate formed within the boiler is----------		Glossary II	Glossary II	2		Single Choice	Brilliant	Sludge	Priming	Scale	Sludge	Foaming
22	Formation of wet steam in boilers is ----		Glossary II	Glossary II	2		Single Choice	Brilliant	Priming	Priming	Scale	Sludge	Foaming
23	Formation of hard bubbles in boilers is -----		Glossary II	Glossary II	2		Single Choice	Brilliant	Foaming	Priming	Scale	Sludge	Foaming
24	Phase exhibit a twisting of molecules perpendicular to the director		Glossary III	Glossary III	2		Single Choice	Brilliant	Smectic LC	Smectic LC	Nematic LC	Cholesteric LC	Lyotropic LC
25	Shows phase transition with change in amount of solvent		Glossary III	Glossary III	2		Single Choice	Brilliant	Lyotropic LC	Smectic LC	Nematic LC	Cholesteric LC	Lyotropic LC
26	Used as a lubricant		Glossary III	Glossary III	2		Single Choice	Brilliant	Cholesteric LC	Smectic LC	Nematic LC	Cholesteric LC	Lyotropic LC
27	Molecules have no positional order but some orientational order is present		Glossary III	Glossary III	2		Single Choice	Brilliant	Nematic LC	Smectic LC	Nematic LC	Cholesteric LC	Lyotropic LC
28	The example of conduction polymer is_____.		Glossary IV	Glossary IV	2		Single Choice	Brilliant	polypyrrole	ABS	terene	polyisoprene	polypyrrole
29	_____ is an example of rubber.		Glossary IV	Glossary IV	2		Single Choice	Brilliant	polyisoprene	ABS	terene	polyisoprene	polypyrrole
30	_____ is used as fiber.		Glossary IV	Glossary IV	2		Single Choice	Brilliant	terene	ABS	terene	polyisoprene	polypyrrole
31	The example of polymer blend is_____.		Glossary IV	Glossary IV	2		Single Choice	Brilliant	ABS	ABS	terene	polyisoprene	polypyrrole
32	The shift of an absorption maximum (λmax) towards the blue end or lower wavelength --------		Glossary V	Glossary V	2		Single Choice	Brilliant	Hypsochromic shift	Hyperchromic shift	Bathochromic shift	Hypochromic shift	Hypsochromic shift
33	The shift of an absorption maximum (λmax) towards the red end or higher wavelength ------		Glossary V	Glossary V	2		Single Choice	Brilliant	Bathochromic shift	Hyperchromic shift	Bathochromic shift	Hypochromic shift	Hypsochromic shift
34	Increase in the intensity of absorption (εmax) is known as ----------		Glossary V	Glossary V	2		Single Choice	Brilliant	Hyperchromic shift	Hyperchromic shift	Bathochromic shift	Hypochromic shift	Hypsochromic shift
35	Decrease in the intensity of absorption (εmax) is known as ----------		Glossary V	Glossary V	2		Single Choice	Brilliant	Hypochromic shift	Hyperchromic shift	Bathochromic shift	Hypochromic shift	Hypsochromic shift