



Q.No.1

You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill the relevant circle in front of that question number on computerized answer sheet. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero marks in that question. Attempt as many questions as given in objective type question paper and leave other circles blank.

S.#	Questions	A	B	C	D
1	The wavenumber of the light emitted by a certain source is $2 \times 10^6 \text{ m}^{-1}$. The wavelength of this light will be:	500nm	500m	200nm	$5 \times 10^7 \text{ m}$
2	Ionic solids are characterized by:	Low melting point	High vapour pressure	Good conductivity in solid state	Solubility in polar solvents
3	In order to mention the boiling point of water at 110°C , the external pressure should be:	Between 760 torr and 1200 torr	Between 200 torr and 760 torr	765 torr	Any value of pressure
4	Equal _____ of ideal gases at the same temperature and pressure contains _____ number of molecules.	Masses ; Equal	Volume ; Equal	Moles ; Unequal	Volume ; Unequal
5	The molar volume of CO_2 is maximum at:	STP	127°C and 1 atm	0°C and 2 atm	273°C and 2 atm
6	Solvent extraction is particularly useful technique for the separation when the product to be separated is:	Non-volatile or thermally unstable	Volatile or thermally stable	Non-volatile or thermally stable	Volatile or thermally unstable
7	The most common laboratory example of solvent extraction is called:	Ether extraction	Distillation	Sublimation	Crystallization
8	1 mole of glucose has _____ number of hydrogen atoms.	6×22.414	$12 \times 6.02 \times 10^{23}$	$6 \times 6.02 \times 10^{23}$	$24 \times 6.02 \times 10^{23}$
9	The number of moles of CO_2 which contains 8g of oxygen:	0.25	0.50	1.0	1.50
10	In zero order reaction, the rate is independent of:	Temperature of reaction	Concentration of reactants	Concentration of products	None of these
11	If a strip of Cu metal is placed in a solution of FeSO_4 :	Cu will be deposited	Fe is precipitated out	"Cu and Fe" both dissolves	No reaction takes place
12	The molal boiling point constant is the ratio of the elevation in boiling point to the:	Molarity	Molality	Mole fraction of solvent	Mole fraction of solute
13	Which combination is an acidic buffer?	A	$\text{HCl} + \text{NaCl}$		C $\text{NH}_4\text{OH} + \text{NH}_4\text{Cl}$
		B	$\text{CH}_3\text{COOH} + \text{CH}_3\text{COONa}$		D $\text{NaOH} + \text{NaCl}$
14	Which system is endothermic as well as spontaneous?	A	$\text{H}_2\text{O}(\ell) \rightarrow \text{H}_2\text{O}(\text{g})$	C	$\text{N}_2(\text{g}) + \text{O}_2(\text{g}) \rightleftharpoons 2\text{NO}(\text{g})$
		B	$\text{H}_2\text{O}(\text{g}) \rightarrow \text{H}_2\text{O}(\ell)$	D	$\text{NaOH}(\text{aq}) + \text{HCl}(\text{aq}) \rightarrow \text{NaCl}(\text{aq}) + \text{H}_2\text{O}(\ell)$
15	Which molecule has zero dipole moment?	BF_3	H_2O	NH_3	CHCl_3
16	The bond order of Ne_2 is:	Two	Three	One	Zero
17	When 3d orbital is completely filled the entering electron goes to:	4s	4p	4f	5s