

Version No.			
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ROLL NUMBER					



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Answer Sheet No. _____

Sign. of Candidate _____

Sign. of Invigilator _____

Section - A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

CHEMISTRY HSSC-I
SECTION - A (Marks 17)
Time allowed: 25 Minutes

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دے کر ناظم مرکز کے حوالے کریں۔ کاٹ کر دوبارہ لکھنے کی اجازت نہیں ہے۔ لیز پینسل کا استعمال ممنوع ہے۔

Fill the relevant bubble against each question:

ہر سوال کے سامنے دیے گئے درست دائرہ کو پر کریں۔

1. No. of atoms of oxygen present in 500g of $KClO_3$ is (M.Wt, K=39, Cl=35.5, O=16) 7.3×10^{24} 3.61×10^{24} 2.45×10^{24} 36.8×10^{23}
2. Magnesium reacts with Sulphur to produce MgS . How many grams of MgS can be made from 24g of Mg with excess of Sulphur by the reaction $Mg + S \rightarrow MgS$ (M.Wt, Mg=24, S=32) 35g 56g 58.3g 12g
3. Which of the following is NOT a state function? Pressure Volume Temperature Work
4. If frequency of Photon is $4 \times 10^{15} \text{ Hz}$, then its energy will be: ($h = 6.626 \times 10^{-34} \text{ Js}$) $26.5 \times 10^{-18} \text{ J}$ $26.5 \times 10^{-19} \text{ J}$ $26.5 \times 10^{19} \text{ J}$ $26.5 \times 10^{18} \text{ J}$
5. According to Moseley's law, when metals having large atomic number will be used as an anode then it will produce X-rays of: Longer wavelength Low wave number Shorter wavelength Low energy
6. Total No. of Sigma and Pi bonds in Ethyne $CH \equiv CH$ are: 2 Sigma and 3 Pi bonds 3 Sigma and 2 Pi bonds 5 Sigma and 3 Pi bonds 3 Sigma and 5 Pi bonds
7. Identify the species with maximum bond angle: CH_4 NH_3 H_2O H_2S
8. In lead storage battery electrolyte is: 30% HCl 30% HNO_3 30% H_2SO_4 30% HBr
9. According to Le-chatelier's Principle, in an exothermic reaction, what should be done to temperature of system to obtain maximum product at equilibrium? Kept Low Kept High Kept Same Temperature has no effect
10. According to Graham's law which one has highest rate of diffusion? (M. Wt, S=32, O=16, H=1) SO_2 SO_3 H_2S SCl_2

11. Electric current can pass through graphite in one direction but not through other direction of crystal, such a property is called: Allotropy Anisotropy Isotropy An isomorphism
12. Which one is conductor but not malleable? Iron Graphite Silver Copper
13. Which of the following Concentration Units does NOT depends on Temperature? Molarity Molality % $\frac{v}{v}$ % $\frac{m}{v}$
14. Which of the following will contain lowest vapor pressure at 50°C? CH₄ HF NH₃ H₂O
15. A solution of HCl having pH = 4 will be: 0.4M 4.0M 0.0001M 0.0004M
16. $K_c = 0.04$ at 723K for following reaction
 $PCl_{5(g)} \rightleftharpoons PCl_{3(g)} + Cl_{2(g)}$
 K_p of the reaction will be: 0.04 2.37 0.64 0.40
 where ($R = 0.082 \text{ atm dm}^3 \text{ mol}^{-1} \text{ K}^{-1}$)
17. In a mixture containing 44g each of CO₂, SO₂, SO₃ and Cl₂ gases, which of the following will have highest partial pressure according to Dalton's Law? CO₂ SO₂ SO₃ Cl₂
 (where molar masses CO₂=44, SO₂=64, SO₃=80, Cl₂=71)

SUPPLEMENTARY TABLE

Atomic No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Symbol	H	He	Li	Be	B	C	N	O	F	Ne	Na	Mg	Al	Si	P	S	Cl	Ar	K	Ca
Mass No	1	4	7	9	11	12	14	16	19	20	23	24	27	28	31	32	35.5	40	39	40

—1HA-I 2209-7091 (HA) —

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