

NEET FULL TEST- 1

(05th April, 2017)

Time Allotted : 1 Hour

Max. Marks : 180 Marks

- ❖ Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.
- ❖ You are not allowed to leave the Examination Hall before the end of the test.

INSTRUCTIONS

1. Read each question carefully.
2. It is mandatory to use Blue/Black Ball Point Pen to darken the appropriate circle in the answer sheet.
3. Mark should be dark and should completely fill the circle.
4. Rough work must not be done on the answer sheet.
5. Do not use white-fluid or any other rubbing material on answer sheet. No change in the answer once marked.
6. Student cannot use log tables and calculators or any other material in the examination hall.
7. Before attempting the question paper, student should ensure that the test paper contains all pages and no page is missing.
8. Each correct answer carries four marks. One mark will be deducted for each incorrect answer from the total score.
9. Before handing over the answer sheet to the invigilator, candidate should check that Roll No. have been filled and marked correctly.
10. Immediately after the prescribed examination time is over, the answer sheet to be returned to the invigilator.

NEXT FULL SYLLABUS TEST OF CHEMISTRY: 08-04-2017

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**ATOMOS CLASSES***By***Er. G. K. SINGH****(Ex-Faculty Super-30, Patna)**

1. In a fcc arrangement of A and B atoms, where A atoms are at the corners of the unit cell, B atoms at the face centres, two atoms are missing from two corners in each unit cell, then the simplest formula of the compound is
- (1) A_7B_6
 - (2) A_6B_7
 - (3) A_7B_{24}
 - (4) AB_4
2. A 0.2 molal aqueous solution of weak acid (HX) is 20% ionised. The freezing point of this solution is
- (Given $K_f = 1.86^\circ\text{C}/\text{m}$ for water)
- (1) -0.31°C
 - (2) -0.45°C
 - (3) -0.53°C
 - (4) -0.90°C
3. On adding solute to a solvent having vapour pressure 0.80 atm, vapour pressure reduces to 0.60 atm. Mole fraction of solute is
- (1) 0.25
 - (2) 0.75
 - (3) 0.50
 - (4) 0.33
4. Fraction of total volume occupied by atoms in a simple cube is
- (1) $\frac{\pi}{2}$
 - (2) $\frac{\sqrt{3}\pi}{2}$
 - (3) $\frac{\sqrt{2}\pi}{2}$
 - (4) $\frac{\pi}{6}$
5. A 0.001 molal solution of $[\text{Pt}(\text{NH}_3)_4\text{Cl}_3]\text{Cl}_4$ in water has a freezing point depression of 0.0054°C . If K_f for water is 1.80, the correct formulation for the above molecule is
- (1) $[\text{Pt}(\text{NH}_3)_4\text{Cl}_3]\text{Cl}$
 - (2) $[\text{Pt}(\text{NH}_3)_4\text{Cl}]\text{Cl}_2$
 - (3) $[\text{Pt}(\text{NH}_3)_4\text{Cl}_2]\text{Cl}$
 - (4) $[\text{Pt}(\text{NH}_3)_4\text{Cl}_4]$
6. For a binary ideal liquid solution, the total pressure of the solution is given as
- (1) $P_{\text{total}} = P_A^0 + (P_A^0 - P_B^0)X_A$
 - (2) $P_{\text{total}} = P_B^0 + (P_B^0 - P_A^0)X_A$
 - (3) $P_{\text{total}} = P_A^0 + (P_B^0 - P_A^0)X_A$
 - (4) $P_{\text{total}} = P_B^0 + (P_B^0 - P_A^0)X_A$
7. Azeotropic mixture of HCl and water has
- (1) 84% HCl
 - (2) 22.2% HCl
 - (3) 63% HCl
 - (4) 20.2% HCl
8. A relationship between the values of osmotic pressure of 0.1 M solutions of KNO_3 (P_1) and CH_3COOH (P_2) is
- (1) $P_1 > P_2$
 - (2) $P_2 > P_1$
 - (3) $P_1 = P_2$
 - (4) $P_1/(P_1+P_2) = P_2/(P_1+P_2)$
9. The rate constant, the activation energy and Arrhenius parameter of a chemical reaction at 25°C are $3.0 \times 10^{-4} \text{ s}^{-1}$, 1044 kJ mol^{-1} and $6.0 \times 10^{14} \text{ s}^{-1}$ respectively. The value of rate constant as $T \rightarrow \infty$ is
- (1) $2.0 \times 10^{18} \text{ s}^{-1}$
 - (2) $6.0 \times 10^{14} \text{ s}^{-1}$

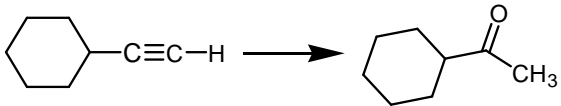
Space For Rough Work



- (3) Infinity
(4) $3.6 \times 10^{30} \text{ s}^{-1}$
10. Which of the following is contributed towards the extra stability of lyophilic colloids?
(1) Hydration
(2) Charge
(3) Color
(4) Tyndall effect
11. For an endothermic reaction, where ΔH represents the enthalpy of the reaction in kJ/mol, the minimum value for the energy of activation will be
(1) less than ΔH
(2) Zero
(3) more than ΔH
(4) Equal to ΔH
12. Which of the following methods is used for sol destruction?
(1) Condensation
(2) Dialysis
(3) Diffusion through animal membrane
(3) Addition of an electrolyte
13. Oxygen and hydrogen gases are produced at the anode and cathode respectively during electrolysis of dilute aq. solution of
(1) Na_2SO_4
(2) AgNO_3
(3) HCl
(4) CuSO_4
14. The Birkeland-Eyde process, the raw material used is
(1) Air
(2) NH_3
(3) NO_2
(4) HNO_3
15. Consider the following statements in the extraction of iron from haematite:
(I) CO is the main reducing agent
(II) Fe_2O_3 is used to oxidise the impurities in Bessemer process
(III) In BOP process, air is used to oxidise the impurities
(IV) When air is used to oxidise the impurities, iron nitride is formed in iron
Pick the correct set of statement(s)
(1) I, IV
(2) I, II
(3) I, II and III
(4) I, II and IV
16. Among the following nitrates, lead nitrate, silver nitrate and ammonium nitrate, the one that decomposes without leaving any solid residue is
(1) Lead nitrate
(2) Ammonium nitrate
(3) Silver nitrate
(4) Sodium nitrate
17. A coordination complex compound of cobalt has the molecular formula containing five ammonia molecules, one nitro group and two chlorine atoms for one cobalt atom. One mole of this compound produces three mole ions in an aqueous solution on reacting with excess of AgNO_3 , AgCl precipitates. The ionic formula for this complex would be
(1) $[\text{Co}(\text{NH}_3)_5\text{NO}_2]\text{Cl}_2$
(2) $[\text{Co}(\text{NH}_3)_5\text{Cl}][\text{Cl}(\text{NO}_2)]$
(3) $[\text{Co}(\text{NH}_3)_4(\text{NO}_2\text{Cl})][(\text{NH}_3)\text{Cl}]$
(4) $[\text{Co}(\text{NH}_3)_5](\text{NO}_2)_2\text{Cl}_2]$
18. Ethyl bromide reacts with silver nitrite to form
(1) Nitroethane

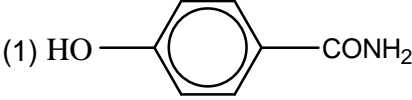
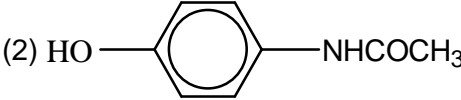
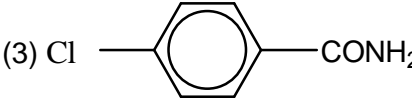
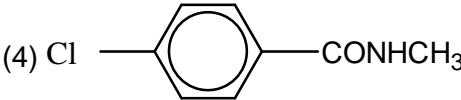
Space For Rough Work



- (2) Nitroethane and ethyl nitrite
 (3) Ethyl nitrite
 (4) Ethane
19. In a reaction the ferrous (Fe^{++}) iron is oxidised to ferric (Fe^{+++}) ion. The equivalent weight of the ion in the above reaction is equal to
 (1) Half of the atomic weight
 (2) 1/5 of the atomic weight
 (3) The atomic weight
 (4) Twice the atomic weight
20. Which would exhibit ionisation isomerism?
 (1) $[\text{Cr}(\text{NH}_3)_6]\text{Cl}_6$
 (2) $[\text{Co}(\text{NH}_3)_5\text{Br}]\text{SO}_4$
 (3) $[\text{Cr}(\text{en})_2]\text{Cl}_2$
 (4) $[\text{Cr}(\text{en}_3)\text{Cl}_3]$
21. One of the following metals forms a volatile carbonyl compound and this property is taken advantage of for its extraction. This metal is
 (1) Iron
 (2) Nickel
 (3) Cobalt
 (4) Tungston
22. Among the following, the molecule with the highest dipole moment is
 (1) CH_3Cl
 (2) CH_2Cl_2
 (3) CHCl_3
 (4) CCl_4
23. The reagent used to convert
- 
- (1) 1. O_3 / Red. 2. CaCO_3 3. MeCOOH
- (2) 1. $\text{H}_2\text{SO}_4 + \text{HgSO}_4$ 2. H_2O 3. heat
 (3) 1. $\text{O}_3 / \text{Zn} - \text{AcOH}$ 2. $\text{H}_2\text{SO}_4 + \text{HgSO}_4$
 3. H_2O , heat
 (4) 1. CH_3COOH 2. HgSO_4 3. $\text{OH}^-/\text{H}_2\text{O}$
24. Acidic nature is more for
 (1) *o*-amino phenol
 (2) *m*-amino phenol
 (3) *p*-amino phenol
 (4) All have equal K_a 's
25. Which of the following is the stronger acid?
 (1) Benzoic acid
 (2) 4-Nitrobenzoic acid
 (3) 4-Methoxy benzoic acid
 (4) 4-Methyl benzoic acid
26. Dipole moment of
 (I) $\text{CH}_3\text{CH}_2\text{CH}_3$ (II) $\text{CH}_3\text{CH}_2\text{OH}$
 (III) $\text{CH}_3\text{CH}_2\text{F}$ is in order
 (1) $\text{I} < \text{II} < \text{III}$
 (2) $\text{I} > \text{II} > \text{III}$
 (3) $\text{I} < \text{III} < \text{II}$
 (4) $\text{III} < \text{I} < \text{II}$
27. Which of the following substances or treatment with P_2O_5 gives ethanenitrile?
 (1) Propanamide
 (2) Ethanamide
 (3) Ethanoic acid
 (4) N-Methylethyl amine
28. Which of the following statements is not correct?
 (1) Symbols D- and L-before the name of monosaccharides refer to the direction of rotation of the light
 (2) Pyranose has a six-membered ring

Space For Rough Work



- structure
- (3) Furanose has a five-membered ring structure
- (4) Pyranose and furanose are the examples of hemiketal
29. The correct structure of drug paracetamol is
- (1) 
- (2) 
- (3) 
- (4) 
30. Wash and wear clothes are manufactured using
- (1) Nylon fibres
- (2) Cotton mixed with nylon
- (3) Terylen fibres
- (4) Wood fibres
31. Which of the following statements is correct?
- (1) Methyl amine is slightly acidic
- (2) methyl amine is less basic than ammonia
- (3) Methyl amine is less basic than dimethyl amine
- (4) methyl amine is less basic than aniline
32. Which electronic level would allow the hydrogen atom to absorb a photon but not to emit a photon?
- (1) 3s
- (2) 2p
- (3) 2s
- (4) 1s
33. Which of the following statements is correct with respect to the property of elements with an increase in atomic number in the carbon family (group 14)?
- (1) Atomic size decrease
- (2) Ionization energy increase
- (3) Metallic character decrease
- (4) Stability of +2 oxidation state increase
34. The number of neutrons in a drop of water (20 drops = 1mL) at 4°C
- (1) 6.023×10^{22}
- (2) 1.338×10^{22}
- (3) 6.023×10^{20}
- (4) 7.338×10^{22}
35. The uncertainty in the position of an electron (mass = 9.1×10^{-28} g) moving with a velocity of 3.0×10^4 cm s⁻¹ accurate up to 0.001% will be (Use $\frac{h}{4\pi}$ in the uncertainty expression, where $h = 6.626 \times 10^{-27}$)
- (1) 1.92 cm
- (2) 7.68 cm
- (3) 5.76 cm
- (4) 3.84 cm
36. The pair of amphoteric hydroxides is
- (1) Al(OH)₃, LiOH
- (2) Be(OH)₂, Mg(OH)₂
- (3) B(OH)₃, Be(OH)₂
- (4) Be(OH)₂, Zn(OH)₂
37. Assuming that petrol is octane (C₈H₁₈) and has density 0.8 g/ml, 1.425 litre of petrol on complete combustion will consume

Space For Rough Work

- (1) 50 moles of O_2
 (2) 125 moles of O_2
 (3) 100 moles of O_2
 (4) 200 moles of O_2
38. PCl_5 exists, but NCl_5 does not exist because
 (1) Nitrogen has no vacant 2-*d* orbital
 (2) NCl_5 unstable
 (3) N-atom is much smaller than P
 (4) Nitrogen is highly inert
39. Boyle's law may be expressed as
 (1) $\left(\frac{dP}{dV}\right)_T = \frac{K}{V}$
 (2) $\left(\frac{dP}{dV}\right)_T = -\frac{K}{V^2}$
 (3) $\left(\frac{dP}{dV}\right)_T = -\frac{K}{V}$
 (4) None
40. When NH_3 is treated with HCl, state of hybridization on central nitrogen
 (1) Changes from sp^3 to sp^2
 (2) Remains unchanged
 (3) Changes from sp^3 to sp^3d
 (4) Changes from sp^3 to sp
41. In the reversible reaction $A + B \rightleftharpoons C + D$, the concentration of each C and D at equilibrium was 0.8 mole/litre, then the equilibrium constant K_c will be
 (1) 6.4
 (2) 0.64
 (3) 1.6
 (4) 16.0
42. Smelting of iron ore takes place through this reaction
- $$2Fe_2O_3(s) + 3C(s) \longrightarrow 4Fe(s) + 3CO_2(g)$$
- ΔH_f° of Fe_2O_3 and CO_2 are $-8242 \text{ kJ mole}^{-1}$ and $-393.7 \text{ kJ mole}^{-1}$
- (1) Endothermic
 (2) Exothermic
 (3) $\Delta H = 0$
 (4) None of these
43. 2 moles of PCl_5 was heated in a closed vessel of 2 litre capacity. At equilibrium, 40% of PCl_5 is dissociated into PCl_3 and Cl_2 . The value of equilibrium constant is
 (1) 0.266
 (2) 0.53
 (3) 2.66
 (4) 5.3
44. For the given heat of reaction,
 (i) $C(s) + O_2(g) \rightleftharpoons CO_2(g) + 97 \text{ kcal}$
 (ii) $CO_2(g) + C(s) \rightleftharpoons 2CO(g) - 39 \text{ kcal}$
 the heat of combustion of $CO(g)$ is:
 (1) 68 kcal
 (2) -68 kcal
 (3) +48 kcal
 (4) None
45. A gas can be liquefied by pressure alone when its temperature is
 (1) Higher than its critical temperature
 (2) Lower than its critical temperature
 (3) Either of these
 (4) None of these

Space For Rough Work



Your Target To Secure Good Rank In NEET-2017

“When people throw stones at you, convert them into milestones.”

—— Sachin Tendulkar



ATOMOS CLASSES

For IITJEE | MEDICAL | XI | XII

CORPORATE OFFICE

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NEET FULL TEST-1 [ANSWER KEY]

1. (4)	2. (2)	3. (1)	4. (4)	5. (2)	6. (2)	7. (4)
8. (1)	9. (2)	10. (1)	11. (3)	12. (4)	13. (1)	14. (1)
15. (1)	16. (2)	17. (1)	18. (1)	19. (3)	20. (2)	21. (2)
22. (1)	23. (2)	24. (2)	25. (2)	26. (1)	27. (2)	28. (1)
29. (2)	30. (3)	31. (3)	32. (4)	33. (4)	34. (2)	35. (1)
36. (4)	37. (2)	38. (1)	39. (2)	40. (2)	41. (4)	42. (1)
43. (1)	44. (1)	45. (2)				

NEET FULL TEST-1 [ANSWER KEY]

1. (4)	2. (2)	3. (1)	4. (4)	5. (2)	6. (2)	7. (4)
8. (1)	9. (2)	10. (1)	11. (3)	12. (4)	13. (1)	14. (1)
15. (1)	16. (2)	17. (1)	18. (1)	19. (3)	20. (2)	21. (2)
22. (1)	23. (2)	24. (2)	25. (2)	26. (1)	27. (2)	28. (1)
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NEET FULL TEST-1 [ANSWER KEY]

1. (4)	2. (2)	3. (1)	4. (4)	5. (2)	6. (2)	7. (4)
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22. (1)	23. (2)	24. (2)	25. (2)	26. (1)	27. (2)	28. (1)
29. (2)	30. (3)	31. (3)	32. (4)	33. (4)	34. (2)	35. (1)
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NEET FULL TEST-1 [ANSWER KEY]

1. (4)	2. (2)	3. (1)	4. (4)	5. (2)	6. (2)	7. (4)
8. (1)	9. (2)	10. (1)	11. (3)	12. (4)	13. (1)	14. (1)
15. (1)	16. (2)	17. (1)	18. (1)	19. (3)	20. (2)	21. (2)
22. (1)	23. (2)	24. (2)	25. (2)	26. (1)	27. (2)	28. (1)
29. (2)	30. (3)	31. (3)	32. (4)	33. (4)	34. (2)	35. (1)
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