GUJCET-E-2014

Test Booklet No. | 10425 | Test Booklet Code | **A**

This booklet contains 52 pages.

DO NOT open this Test Booklet until you are asked to do so.

Important Instructions :

1) This test consists 120 questions of Physics, Chemistry and Biology. Each question carries **1 mark**. For each correct response the candidate will get 1 mark. For each incorrect response ¼ mark will be deducted. Maximum marks is **120**.

2) This Test is of **3 hours** duration.

3) **Use Black Ball Point Pen only for writing particulars on OMR Answer Sheet and marking answers by darkening the circle '•'.**

4) Rough work is to be done on the space provided for this purpose in the Test Booklet only.

5) **On completion of the test, the candidate must handover the Answer Sheet to the Invigilator in the Room / Hall. The candidates are allowed to take away this Test Booklet with them.**

6) The CODE for this Booklet is A. Make sure that the CODE printed on the Answer Sheet is the same as that on this booklet. In case of discrepancy, the candidate should immediately report the matter to the Invigilator for replacement of both the Test Booklet and the Answer Sheet.

7) The candidate should ensure that the Answer Sheet is not folded. Do not make any stray marks on the Answer Sheet.

8) Do not write your Seat No. anywhere else, except in the specified space in the Test Booklet / Answer Sheet.

9) Use of White fluid for correction is not permissible on the Answer Sheet.

10) Each candidate must show on demand his / her Admission Card to the Invigilator.

11) No candidate, without special permission of the Superintendent or Invigilator, should leave his / her seat.

12) Use of Manual Calculator is permissible.

13) The candidate should not leave the Examination Hall without handing over their Answer Sheet to the Invigilator on duty and must sign the Attendance Sheet (Patrak - 01) Cases where a candidate has not signed the Attendance Sheet (Patrak - 01) be deemed not to have handed over the Answer Sheet and dealt with as an unfair means case.

14) The candidates are governed by all Rules and Regulations of the Board with regard to their conduct in the Examination Hall. All cases of unfair means will be dealt with as per Rules and Regulations of the Board.

15) No part of the Test Booklet and Answer Sheet shall be detached under any circumstances.

16) The candidates will write the Correct Test Booklet Code as given in the Test Booklet / Answer Sheet in the Attendance Sheet. (Patrak - 01)

Candidate's Name : ....

Exam. Seat No. (....

Name of Exam. Centre : ....Exam Centre No.: ....

Test Booklet Code : .... Test Booklet No. : ....

Candidate's Sign .... *Block Supt. Sign* ....

PHYSICS

1) Dimensional formula for electric field is _____.

(A) $M^1 L^2 T^{-1} A^{-2}$

(B) $M^1 L^2 T^{-3} A^{-1}$

(C) $M^1 L^1 T^{-3} A^{-1}$ ✓

(D) $M^0 L^0 T^0 A^0$

2) A particle having mass m and charge q is at rest. On applying a uniform electric field E on it, it starts moving. What is the kinetic energy when it travels a distance x in the direction of force?

(A) $qE^2 x$

(B) $q^2 E x$

(C) $qE x^2$

(D) $qE x$ ✓

3) Two spheres having same radius and mass are suspended by two strings of equal length from the same point, in such a way that their surfaces touch each other. On depositing charge 4×10^{-6} C on them they repel each other in such a way that in equillibrium the angle between their strings becomes 60". If the distance from the point of suspension to the center of the sphere is 10 cm. Find the mass of each sphere. (K = 9×10^9 SI and g = 10 ms^{-2}.)

(A) 0.3117 kg

(B) 0.6235 kg ✓

(C) 0.1559 kg

(D) 1.2468 kg

(Space for Rough Work)

4) Electric field produced due to an infinitely long straight uniformly charged wire at perpendicular distance of 2 cm is 3×10^5 NC^{-1}. Then linear charge density on the wire is _____.

   ($K = 9 \times 10^9$ SI unit)

   (A) $333 \dfrac{\mu c}{m}$ ✓

   (B) $3.33 \dfrac{\mu c}{m}$

   (C) $666 \dfrac{\mu c}{m}$

   (D) $6.66 \dfrac{\mu c}{m}$

5) Two identical thin rings each of radius R m are kept on the same axis at a distance of R m apart. If the charges on them are 10 C and 5 C respectively, Calculate the work done in moving charge q C from the center of one ring to that of another.

   (A) $\dfrac{5q}{4\pi\epsilon_0 R}\left[\dfrac{\sqrt{2}-1}{2}\right]$ J

   (B) $\dfrac{5q}{4\pi\epsilon_0 R}\left[1-\dfrac{1}{\sqrt{2}}\right]$ J ✓

   (C) $\dfrac{15q}{4\pi\epsilon_0 R}\left[\dfrac{\sqrt{2}-1}{\sqrt{2}}\right]$ J

   (D) $\dfrac{10q}{4\pi\epsilon_0 R}\left[\dfrac{\sqrt{2}-1}{\sqrt{2}}\right]$ J

(Space for Rough Work)

6) Q amount of electric charge is present on the surface of a sphere having radius R. Then electrical potential energy of this system is _____.
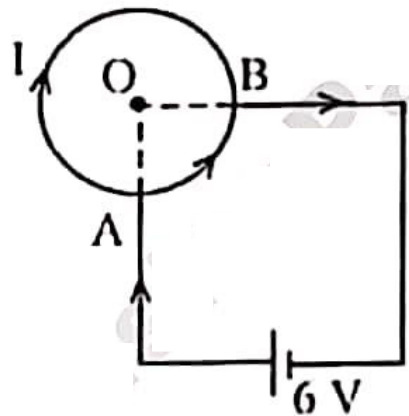
(A) $\dfrac{KQ^2}{R}$

(B) $\dfrac{KQ^2}{R^2}$

(C) $\dfrac{1}{2}\dfrac{KQ^2}{R}$ ✓

(D) $\dfrac{1}{2}\dfrac{KQ^2}{R^2}$

7) A wire is bent in the form of circle of radius 2m. Resistance per unit length of wire is $1/\pi\ \Omega/m$. Battery of 6V is connected between A & B. $\lfloor AOB = 90°$. Find the current through the battery.

(A) 8 A ✓

(B) 4 A

(C) 3 A

(D) 9 A

(Space for Rough Work)

8) The carbon resistor has three orange bands. The maximum value of resistance offered by the resistor will be _____.

   (A) 49.6 K Ω

   (B) 39.6 K Ω ✓

   (C) 33 K Ω

   (D) 26.4 K Ω

9) Two wires of same material having lengths and radii in the ratio of 3:4 and 3:2 respectively are connected in parallel with a potential source of 6V.

   The ratio of currents flowing through them. $I_1 : I_2 =$ _____.

   (A) 1:3

   (B) 3:1 ✓

   (C) 1:2

   (D) 2:1

10) For the galvanometer working as a voltmeter _____ is connected with the coil of the galvanometer.

   (A) high resistance in parallel

   (B) high resistance in series ✓

   (C) low resistance in parallel

   (D) low resistance in series

(Space for Rough Work)

11) The ratio of periods of $\propto$ – particle and proton moving on circular path in uniform magnetic field is _____.

(A) 2 : 1 ✓

(B) 1 : 2

(C) 4 : 1

(D) 1 : 4

12) Two concentric rings are kept in the same plane. Number of turns in each ring is 25. Their radii are 50 cm and 200 cm and they carry electric currents of 0.1 A and 0.2 A respectively, in mutually opposite directions. The magnitude of the magnetic field produced at their centre is _____ T.

(A) $4 \mu_0$

(B) $2 \mu_0$

(C) $\dfrac{10}{4} \mu_0$

(D) $\dfrac{5}{4} \mu_0$

13) The magnetic susceptibility of a paramagnetic material is 1.0×10^{-5} at 27° C temperature. Then, at what temperature its magnetic susceptibility would be 1.5×10^{-5}?

(A) 18° C

(B) 200° C

(C) –73° C ✓

(D) –18° C

_____
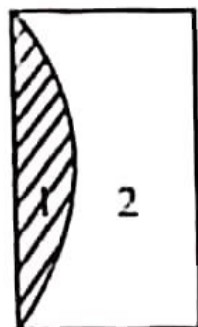
(Space for Rough Work)

14) The Earth's magnetic field at some place on magnetic equator of Earth is 0.5×10^{-4} T. Consider the radius of Earth at that place as 6400 km. Then, magnetic dipole moment of the Earth is _____ Am^2 ($\mu_0 = 4\pi \times 10^{-7}$ TmA^{-1})

   (A) 1.05×10^{23}

   ✓(B) 1.31×10^{23}

   (C) 1.15×10^{23}

   (D) 1.62×10^{23}

15) Antistokes lines is Raman Scattering are the lines of _____ frequency and _____ wavelength.

   (A) low, high

   (B) low, low

   (C) high, high

   ✓(D) high, low

16) The time taken by the sunlight to reach the bottom of a tank of depth 4.5m filled completely with water is _____ ns. The refractive index of water is 4/3.

   (A) 2   ✓(B) 20

   (C) 1.5   (D) 200

_____

(Space for Rough Work)

17) A plano convex lens fits exactly into plano concave lens as shown in figure. Their plane surfaces are parallel to each other. If the lens are made of different materials of refractive indices 1.6 & 1.5 respectively. If R is the radius of curvature of curved surfaces of lenses. Then the focal length of the combination.

(A) $\dfrac{R}{6.2}$

(B) $\dfrac{R}{0.2}$

(C) $\dfrac{R}{3.1}$

(D) $\dfrac{R}{0.1}$

18) A body of mass 100 g moves at the speed of 36 km/hr. The de Broglie wave length related to it is of the order _____ m (h = 6.626×10^{-34} Js)

(A) 10^{-14}

(B) 10^{-34}

(C) 10^{-34}

(D) 10^{-44}

_____

(Space for Rough Work)

19) If the kinetic energy of free electron is made double, the new de Broglie wave length will be _____ times that of initial wave length.

(A) $\sqrt{2}$

(B) $\frac{1}{\sqrt{2}}$ ✓

(C) 2

(D) $\frac{1}{2}$

20) Threshold wave length for lithium metal is 6250 Å. For photo emission, the wave length of the incident light must be _____.

(A) More than 6250 Å

(B) Exactly equal to 6250 Å

(C) Equal to or more than 6250 Å

(D) Equal to or less than 6250 Å ✓

21) The dimensional formula of magnetic flux is _____.

(A) $M^1 L^2 T^{-1} A^{-1}$

(B) $M^1 L^2 T^{-2} A^{-1}$ ✓

(C) $M^{-1} L^{-2} T^2 A^1$

(D) $M^1 L^1 T^{-2} A^{-1}$

(Space for Rough Work)

22) A conducting Coil having 500 turns has cross - sectional area 0.15 m². A magnetic field of strength 0.2 T linked perpendicular to this area changes to 1.0 T in 0.4 sec. The induced emf produced in the coil will be _____ volt.

(A) 10.0

(B) 15.0

(C) 75.0

(D) 150.0

23) The output power in step-up transformer used in practice is _____.

(A) Greater than the input power

(B) Equal to the input power

(C) Less than the input power

(D) None of these

24) A lamp consumes only 50% of maximum power applied in an A.C. circuit. What will be the phase difference between applied voltage and circuit current?

(A) $\frac{\pi}{6}$ rad

(B) $\frac{\pi}{3}$ rad

(C) $\frac{\pi}{4}$ rad

(D) $\frac{\pi}{2}$ rad

(Space for Rough Work)

25) An electric current has both D.C. and A.C. Components D.C. Component of 8A and A.C. Component is given as $I = 6 \sin\omega t$ A. So I_{rms} value of resultant current is _____.

(A) 8.05 A   ✓(B) 9.05 A

(C) 11.58 A   (D) 13.58 A

26) The wave length of the short radio waves, micro waves, ultraviolet waves are λ_1, λ_2 and λ_3 respectively. Arrange them in decreasing order.

(A) $\lambda_1, \lambda_1, \lambda_2$ ✓(B) $\lambda_1, \lambda_2, \lambda_3$

(C) $\lambda_3, \lambda_2, \lambda_1$.   (D) $\lambda_2, \lambda_1, \lambda_3$

27) The unit of permeability of Vacuum (μ_0) is _____.

(A) $\dfrac{N}{A}$ ✓(B) $\dfrac{N}{A^2}$

(C) NA   (D) $\dfrac{J}{A^2}$

28) In young's double slit experiment. if the width of 4th bright fringe is 2×10^{-2} cm. then the width of 6th bright fringe will be _____ cm.

(A) 10^{-2} (B) 3×10^{-2}

✓(C) 2×10^{-2} (D) 1.5×10^{-2}

(Space for Rough Work)

29) Unpolarized light falls first on polarizer (P) and then on analyzer (A). If the intensity of the transmitted light from the analyzer is $\frac{1}{8}$ th of the incident unpolarized light. What will be the angle between optic axes of P & A?

(A) 30°

(B) 45°

(C) 0°

(D) 60° ✓

30) The diameter of the pupil of human eye is 2.5 mm. Assuming the wave length of light used is 5000 Å. What must be the minimum distance between two point like objects to be seen clearly if they are at a distance of 5 m from the eye?

(A) 1.34×10^{-1} m

(B) 1.22×10^{-3} m ✓

(C) 1.5×10^{-1} m

(D) 1.6×10^{-3} m

31) If λ_1 and λ_2 are the wave length of the first numbers of the Lyman and Paschen series respectively. Then $\lambda_1 : \lambda_2$ _____ .

(A) 1 : 3

(B) 1 : 30

(C) 7 : 50

(D) 7 : 108 ✓

32) The wave length of X-rays is in the range.

(A) 0.001 nm to 1 nm ✓

(B) 0.001 Å to 1 Å

(C) 0.001 μm to 1 μm

(D) 0.001 cm to 1 cm

(Space for Rough Work)

33) In the radio active transformation

$$_{z}X^{A} \longrightarrow _{z+1}X_1^{A} \longrightarrow _{z-1}X_2^{A-4} \longrightarrow _{z-3}X_3^{A-8}$$
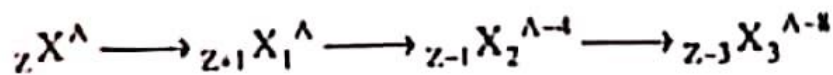
Which are successively emitted radioactive radiations?

(A) α, β^-, β^-

(B) β^-, α, β^-

(C) β^-, α, α ✓

(D) α, β^-, α

34) The binding energy per nuclean of $_xO^{16}$ is 7.97 MeV and that of $_xO^{17}$ is 7.75 MeV. The energy required to remove one neutron from $_xO^{17}$ is _____ MeV.

(A) 3.52

(B) 3.62

(C) 4.23 ✓

(D) 7.86

35) The half life of a radio active substance is 20 days. If $\frac{2}{3}$ part of the substance has decayed in time t_2 and $\frac{1}{3}$ part of it has decayed in time t_1, then the time interval between t_2 and t_1 is $(t_2 - t_1) =$ _____.

(A) 5 days

(B) 10 days

(C) 20 days ✓

(D) 40 days

36) The frequency of the output signal becomes _____ times by doubling the value of the capacitance in the I.C oscillator circuit.

(A) $\dfrac{1}{\sqrt{2}}$ ✓

(B) $\sqrt{2}$

(C) $\dfrac{1}{2}$

(D) 2

(Space for Rough Work)

37) In a zener diode, the reverse bias voltage is 3V and the width of the depletion region is 300 A°, the electric field intensity will be _____ V/cm.

    (A) 10^4 (B) 10^6

    (C) 10^8 (D) 10^{-2}

38) The collector supply voltage in CE transistor amplifier is 10V. The base current is $10\,\mu A$ in the absence of the signal voltage and the voltage between the collector and the emitter is 4V. The current gain (β) of a transistor is 200, then the value of the load resistance R_L _____ .

    (A) $1\,K\Omega$ (B) $2\,K\Omega$

    (C) $3\,K\Omega$ (D) $4\,K\Omega$

39) The range of frequency of audio signal is _____ .

    (A) 0 to 2 KHz   (B) 20 Hz to 20 MHz

    (C) 20 Hz to 20 KHz   (D) 20 KHz to 200 KHz

40) For an amplitude modulated wave, the maximum amplitude is found to be 12V and minimum amplitude is found to be 4V. The modulation index of this wave is _____ %.

    (A) 25   (B) 50

    (C) 75   (D) 20

(Space for Rough Work)

CHEMISTRY

41) The atoms of element 'Y' form hexagonal close packing and the atoms of element X occupies $\frac{2}{3}$ portion of the number of tetrahedral voids. Write the formula of the compound formed by X and Y.

   (A) X_2Y_3

   (B) X_2Y

   (C) X_1Y_4

   (D) X_4Y_3 ✓

42) What is the difference between the number of atoms per unit cell in face centred cube and the number of atoms per unit cell in body centred cube?

   (A) 2 ✓

   (B) 1

   (C) 4

   (D) 6

43) What will be the value of molality for an aqueous solution of 10% w/w NaOH. (Na = 23, O = 16, H = 1)
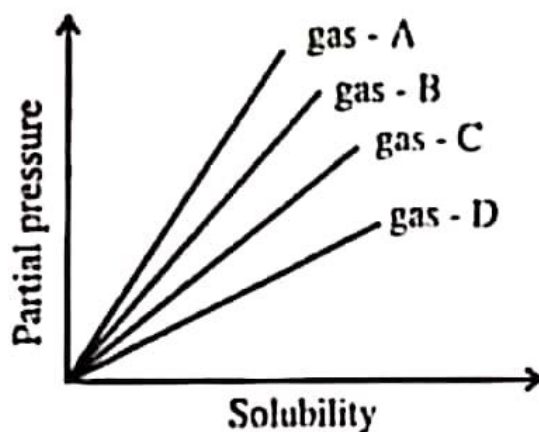
   (A) 2.778 ✓

   (B) 5

   (C) 10

   (D) 2.5

(Space for Rough Work)

44) From the given graph at constant temperature, which gas has the least solubility?

(A) gas - D
(B) gas - B

(C) gas - A
(D) gas - C

45) If 10 ml of 0.1 M aqueous solution of NaCl is divided in to 1000 drops of equal volume, what will be the concentration of one drop?

(A) 0.01 M
(B) 0.10 M

(C) 0.001 M
(D) 0.0001 M

46) Which of the following will give $H_{2(g)}$ at cathode and $O_{2(g)}$ at anode on electrolysis using platinum electrodes?

(A) molten NaCl

(B) concentrated aq.solution of NaCl

(C) dilute aq. solution of NaCl

(D) solid NaCl

(Space for Rough Work)

47) Which of the following statement is incorrect with respect to metallic or electronic conductivity?

(A) metallic conductivity depends on the structure of metal and its characteristics

(B) metallic conductivity depends on the number of electrons in the valence shell of atom of metal

(C) The electrical conductivity of metal increases with increase in temperature ✓

(D) There is no change in the structure of metal during electrical conduction

48) Which of the following is concentration cell?

(A) $Cu_{(s)}/Cu^{2+}_{(aq.\ 1M)} // Cu^{2+}_{(aq.\ 1M)}/Cu_{(s)}$

(B) $Cu_{(s)}/Cu^{2+}_{(aq.0.5M)} // Cu^{2+}_{(aq.\ 0.5M)}/Cu_{(s)}$

(C) $Zn_{(s)}/Zn^{2+}_{(aq.0.5M)} // Cu^{2+}_{(aq.\ 0.1M)}/Cu_{(s)}$

(D) $°Pt/H_{2_{(g.\ 1bar)}}/HCl_{(aq.0.002M)} // HCl_{(aq.0.005M)}/H_{2_{(g.1bar)}}/Pt°$ ✓

49) Which of the following metal is purified by Mond Carbonyl method?

(A) Zr   (B) Ti

(C) Ge   (D) Ni ✓

_____

(Space for Rough Work)

50) Which oxide is colourless and neutral?

(A) N_2O

(B) N_2O_3

(C) N_2O_4

(D) N_2O_5

51) What is the geometrical shape of XeO_3?

(A) Planar triangular

(B) Trigonal pyramidal

(C) Square planar

(D) Tetrahydral

52) Aqueous solution of which of the following acid can not be kept in glass bottle?

(A) HF

(B) HI

(C) HCl

(D) HBr

53) Which of the following is the correct order for strength of C – X bond.

(A) $CH_3F > CH_3Cl > CH_3Br > CH_3I$

(B) $CH_3F < CH_3Cl < CH_3Br < CH_3I$

(C) $CH_3I > CH_3F > CH_3Cl > CH_3Br$

(D) $CH_3Cl > CH_3Br > CH_3F > CH_3I$

_____

(Space for Rough Work)

54) Which one is the Swartz reaction from the following?

(A) $CH_3Cl + NaI \xrightarrow{\text{acetone}} CH_3I + NaCl$

(B) $CH_3Br + NaI \xrightarrow{\text{acetone}} CH_3I + NaBr$

(C) $CH_3Br + AgF \longrightarrow CH_3F + AgBr$

(D) $2 CH_3Cl + 2 Na \xrightarrow{\text{Dry ether}} CH_3 \cdot CH_3 + 2 NaCl$
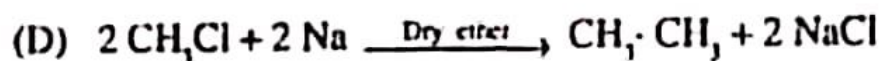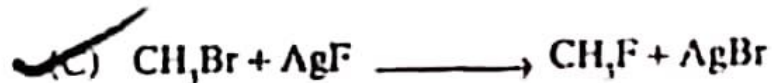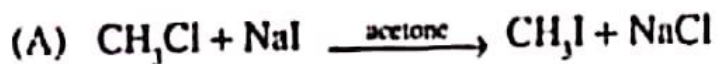
55) Which of the following statement is incorrect for bimolecular nucleophylic substitution reaction (SN^2)?

(A) It is a second order reaction

(B) In SN^2 reaction the substrate does not undergo heterolytic fission

(C) The rate of SN^2 reaction does not depends on concentrations of both substrate and nucleophilic reagent

(D) SN^2 reaction occurs in single step without forming intermediate

56) Which of the following alcohol has highest solubility in water?

(A) Secondary butyl alcohol

(B) Tertiary butyl alcohol

(C) Ethelene glycol

(D) Glycerol

(Space for Rough Work)

57) In which of the following reactions of alcohol there is no cleavage of C–O bond?

(A) Oxidation reaction of alcohol ✓

(B) Dehydration reaction of alcohol

(C) Reduction reaction of alcohol

(D) Reaction of alcohol with phosphorous tribromide

58) Which one of the following compounds do not give a primary alcohol on reduction?

(A) Propanoic acid

(B) Propanal

(C) Methyl propanoate

(D) Propan - 2 - one ✓

59) The half life period for a first order reaction is _____.

(A) Proportional to concentration

(B) Independent of concentration ✓

(C) Inversely proportional to concentration

(D) Inversely proportional to the square of the concentration

60) According to Arrhenius equation, the slope of $\log k \rightarrow \frac{1}{T}$ plot is _____.

(A) $\dfrac{-Ea}{2.303}$

(B) $\dfrac{-Ea}{2.303\,R}$ ✓

(C) $\dfrac{-Ea}{2.303\,RT}$

(D) $\dfrac{Ea}{2.303\,RT}$

(Space for Rough Work)

61) The value of rate constant for a first order reaction is 2.303×10^{-2} sec^{-1}. What will be the time required to reduce the concentration to $\dfrac{1}{10}$th of its initial concentration?

(A) 10 second

(B) 100 second

(C) 2303 second

(D) 230.3 second

62) Which of the following statement is incorrect for physical adsorption?

(A) Monomolecular layer forms on the adsorbent

(B) It is instantaneous

(C) Less activation energy is required for it

(D) Generally it results at low temperature and adsorption decreases with increase in temperature

63) Name the catalyst [X] for the reaction, $CO_{(g)} + H_{2(g)} \xrightarrow{\ [X]\ } HCHO_{(g)}$

(A) Ni

(B) Cu

(C) Cu / ZnO

(D) Cu / Cr$_2$O$_1$

64) Which of the following is a transition element as per the ground state electronic configuration?

(A) Au

(B) Hg

(C) Cd

(D) Zn

(Space for Rough Work)

65) Which of the following option is the correct order for the basic strength of metallic hydroxides?

(A) $Al(OH)_3 < Lu(OH)_3 < Ce(OH)_3 < Ca(OH)_2$ ✓

(B) $Ca(OH)_2 < Al(OH)_3 < Lu(OH)_3 < Ce(OH)_3$

(C) $Lu(OH)_3 < Ce(OH)_3 < Al(OH)_3 < Ca(OH)_2$

(D) $Lu(OH)_3 < Ce(OH)_3 < Ca(OH)_2 < Al(OH)_3$

66) Which of the following compound is used in gas lighter.

(A) CeO_2

(B) Pyrophoric Misch metal ✓

(C) Nichrome

(D) Nitinol

67) Which of the following complex does not show optical isomerism?

(A) $[Cr(C_2O_4)_3]^{3-}$

(B) Cis $[Pt(Br)_2(en)_2]^{2+}$

(C) $[CrCl_2(NH_3)_2 en]^+$

(D) $[Cr(NH_3)_4 SO_4]^+$ ✓

68) Which of the following complex ion has least stability?

(A) $[Co(CN)_6]^{3-}$

(B) $[Co(NH_3)_6]^{3+}$ ✓

(C) $[Co(NH_3)_6]^{2+}$

(D) $[Co(CO)_6]^{3+}$

(Space for Rough Work)

69) Which of the following ligand possess only one co-ordination site?

    (A) O^{2-} ✓

    (B) CO_3^{2-}

    (C) SO_4^{2-}

    (D) $[OX]^{2-}$

70) Which of following is the correct order of acidic strength?

    (A) $CH_3COOH > ClCH_2COOH > Cl_2CHCOOH > Cl_3 \cdot C \cdot COOH$

    (B) $Cl_3 \cdot C \cdot COOH > Cl_2CH \cdot COOH > Cl \cdot CH_2COOH > CH_3COOH$ ✓

    (C) $CH_3COOH > Cl_3 \cdot C \cdot COOH > Cl_2CH \cdot COOH > Cl \cdot CH_2COOH$

    (D) $CH_3COOH > ClCH_2COOH > Cl_2 \cdot CH \cdot COOH > Cl_3 \cdot C \cdot COOH$

71) The solution of Fehling B contains _____.

    (A) Alkaline sodium potassium citrate

    (B) Acidified Rochelle salt

    (C) Alkaline sodium potassium tartarate ✓

    (D) Acidified sodium potassium citrate

72) Which of the following compound does not react with concentrated alkali to give corresponding alcohol and salt of carboxylic acid?

    (A) Benzaldehyde

    (B) Trimethyl acetaldehyde

    (C) Dimethyl acetaldehyde ✓

    (D) Formaldehyde

(Space for Rough Work)

73) Which of the following reaction does not occur?

(A) Tri propyl amine + benzene sulphonyl chloride

(B) Di propyl amine + benzene sulphonyl chloride

(C) Propyl amine + benzene sulphonyl chloride

(D) Propyl amine + p-toluene sulphonyl chloride

74) Presently which reagent is used for separation of $1°$, $2°$ and $3°$ amines?

(A) p - toluene sulphonyl chloride

(B) Benzene sulphonyl chloride

(C) p - Amino benzene sulphonyl chloride

(D) m - toluene sulphonyl chloride

75) Which vitamin is not obtained from plants?

(A) Thiamine

(B) Cyanocobalamine

(C) Pyridoxine

(D) α - Tocopherol

76) When sucrose is heated to 483 K temperature, it loses water and forms a brown amorphous substance called _____.

(A) Aspartame

(B) Caramel

(C) Alitame

(D) Sucrolose

(Space for Rough Work)

77) Which of the following amino acid is neutral?

(A) Glycine   (B) Aspartic acid

(C) Lysine   (D) Arginine

78) Which of the following polymer form net like structure?

(A) Polythene   (B) Butyl rubber

(C) Polystyrene   (D) Melamine polymer

79) Which of the following pair of monomers are used in preparation of PHBV?

(A) β - Hydroxy butyric acid, β - hydroxy valeric acid

(B) β - Hydroxy valeric acid, Amino caproic acid

(C) β - Hydroxy butyric acid, Adipic acid

(D) Lactic acid, Adipic acid

80) Which of the following is useful as a food preservative?

(A) Salts of sorbic acid   (B) Sucrolose

(C) Ascorbic acid   (D) Citric acid

(Space for Rough Work)