



Max. Marks: 100

Date: 06.11.2022

ABHIMANYU BATCH
PHYSICS : REVISION TEST-1 (SET A)
Topics: Ray Optics, Circular Motion and Gravitation

1. When light wave suffers reflection at the interface from air to glass, then the change in phase of the reflected wave is equal to
(a) zero (b) $\frac{\pi}{2}$ (c) π (d) 2π
2. Two identical glass ($\mu_g = 3/2$) equi-convex lenses of focal length f each are kept in contact. The space between the two lenses is filled with water ($\mu_w = 4/3$). The focal length of the combination is
(a) $f/3$ (b) f (c) $\frac{4f}{3}$ (d) $\frac{3f}{4}$
3. An air bubble in a glass slab with refractive index 1.5 (near normal incidence) is 5 cm deep when viewed from one surface and 3 cm deep when viewed from the opposite face. The thickness (in cm) of the slab is
(a) 8 (b) 10 (c) 12 (d) 16
4. An person can see objects clearly only when they lie between 50 cm and 400 cm from his eyes. In order to increase the maximum distance of distinct vision to infinity, the type and power of the correcting lens, the person has to use, will be
(a) convex, + 2.25 D (b) concave, - 0.25 D (c) concave, - 0.2 D (d) convex, + 0.15 D

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5. Match the corresponding entries of Column I with Column II. [Where, m is the magnification produced by the mirror]

Column I	Column II
A. $m = -2$	(a) Convex mirror
B. $m = -1/2$	(b) Concave mirror
C. $m = +2$	(c) Real image
D. $m = +1/2$	(d) Virtual image
(a) $A \rightarrow a$ and c , $B \rightarrow a$ and d , $C \rightarrow a$ and b , $D \rightarrow c$ and d	
(b) $A \rightarrow a$ and d , $B \rightarrow b$ and c , $C \rightarrow b$ and d , $D \rightarrow b$ and c	
(c) $A \rightarrow c$ and d , $B \rightarrow b$ and d , $C \rightarrow b$ and c , $D \rightarrow a$ and d	
(d) $A \rightarrow b$ and c , $B \rightarrow b$ and c , $C \rightarrow b$ and d , $D \rightarrow a$ and d	

6. Calculate the focal length of a reading a_{i_aQ} person, if the distance of distinct vision is 75 cm

(a) 75.2 cm (b) 25.6 cm (c) 100.4 cm (d) 37.5 cm

7. A person wants a real image of his own, 3 times enlarged. Where should he stand in front of a concave mirror of radius of curvature of 30 cm?

(a) 90 cm (b) 10 cm (c) 20 cm (d) 30 cm

8. The magnifying power of a convex lens of focal length 10 cm, when the image is formed at the near point is

(a) 6 (b) 5.5 (c) 4 (d) 3.5

9. The velocity of image when object and mirror both are moving towards each other with velocities 4 ms^{-1} and 5 ms^{-1} respectively, is

(a) -14 ms^{-1} (b) 15 ms^{-1} (c) -9 ms^{-1} (d) 14 ms^{-1}

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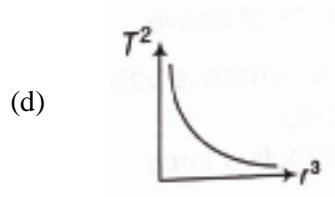
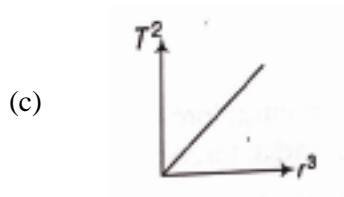
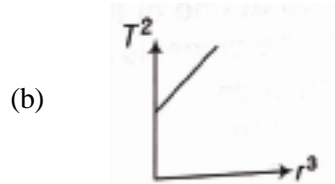
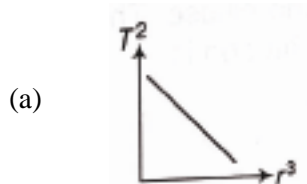


10. A plano-convex lens fits exactly into a plano-concave lens. Their plane surfaces are parallel to each other. If lenses are made of different materials of refractive indices μ_1 and μ_2 and R is the radius of curvature of the curved surface of the lenses, then the focal length of the combination is
- (a) $\frac{R}{2(\mu_1 + \mu_2)}$ (b) $\frac{R}{2(\mu_1 - \mu_2)}$ (c) $\frac{R}{(\mu_1 - \mu_2)}$ (d) $\frac{2R}{(\mu_2 - \mu_1)}$
11. For a normal eye, the cornea of eye provides a converging power of 40 D and the least converging power of the eye lens behind the cornea is 20 D. Using this information, the distance between the retina and the cornea-eye lens can be estimated to be
- (a) 5 cm (b) 2.5 cm (c) 1.67 cm (d) 1.5 cm
12. When an object is placed at 40 cm from a diverging lens, its virtual image is formed 20 cm from the lens. The focal length and power of lens are
- (a) $F = -20$ cm, $P = -5$ D (b) $F = -40$ cm, $P = -5$ D
(c) $F = -40$ cm, $P = -2.5$ D (d) $F = -20$ cm, $P = -2.5$ D
13. A concave mirror of focal length f_1 is placed at a distance d from a convex lens of focal length f_2 . A beam of light coming from infinity and falling on this convex lens concave mirror combination returns to infinity. The distance d must be equal
- (a) $f_1 + f_2$ (b) $-f_1 + f_2$ (c) $2f_1 + f_2$ (d) $-2f_1 + f_2$
14. If the image formed by a convex mirror of focal length 30 cm is a quarter of the size of the object, then the distance of the object from the mirror will be
- (a) 30 cm (b) 60 cm (c) 90 cm (d) 120 cm
15. If the radius of earth's orbit is made $1/4$ th, then duration of an year will become
- (a) 8 times (b) 14 times (c) $1/8$ times (d) $1/4$ times

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16. The period of revolution of planet A around the sun is 8 times that of B. The distance of A from the sun is how many times greater than that of B from the sun?
- (a) 2 (b) 3 (c) 4 (d) 5
17. Which of the following graphs between the square of the time period and cube of the distance of the planet from the sun is correct?



18. A comet of mass m moves in a highly elliptical orbit around the sun of mass M . The maximum and minimum distances of the comet from the centre of the sun are r_1 and r_2 , respectively. The magnitude of angular momentum of the comet with respect to the centre of sun is

(a) $\left[\frac{GM r_1}{(r_1 + r_2)} \right]^{1/2}$
 (b) $\left[\frac{GM m r_1}{(r_1 + r_2)} \right]^{1/2}$
 (c) $\left[\frac{2Gm^2 r_1 r_2}{(r_1 + r_2)} \right]^{1/2}$
 (d) $\left[\frac{2GMm^2 r_1 r_2}{(r_1 + r_2)} \right]^{1/2}$

19. In vertical circular motion, the ratio of kinetic energy of a particle at highest point to that at lowest point is
- (a) 5 (b) 2 (c) 0.5 (d) 0.2

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20. If suppose moon is suddenly stopped and then released (given, radius of moon is $1/4$ the radius of earth) and the acceleration of moon with respect to earth is 0.0027 ms^{-2} , then the acceleration of the moon just before striking the earth's surface is (Given, $g = 10 \text{ ms}^{-2}$)
- (a) 0.0027 ms^{-2} (b) 5.0 ms^{-2} (c) 6.4 ms^{-2} (d) 10 ms^{-2}
21. The acceleration due to gravity on a planet is 1.96 ms^{-2} . If it is safe to jump from a height of 3 m on the earth, the corresponding height on the planet will be
- (a) 3 m (b) 6 m (c) 9 m (d) 15 m
22. The mass of the moon is $1/8$ of the earth but the gravitational pull is $1/6$ of the earth. It is due to the fact that
- (a) moon is the satellite of the earth
(b) the radius of the earth is $8/6$ of the moon radius
(c) the radius of the earth is $\sqrt{8/6}$ of the moon radius
(d) the radius of the moon is $6/8$ of the earth radius
23. Imagine a light planet revolving around a very massive star in a circular orbit of radius r with a period of revolution T . If the gravitational force of attraction between the planet and the star is proportional to $R^{-3/2}$, then T^2 is proportional to
- (a) R^3 (b) $R^{5/2}$ (c) $R^{3/2}$ (d) $R^{7/2}$
24. If a planet of given density was made larger, its force of attraction for an object on its surface would increase because of planet's greater mass but would decrease because of the greater distance from the object to the centre of the planet. Which effect would predominate?
- (a) Increase in mass (b) Increase in radius
(c) Both effect the attraction equally (d) None of the above

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25. The orbital velocity of an artificial satellite in a circular orbit just above the earth's surface is v . For a satellite orbiting at an altitude of half of the earth's radius, the orbital velocity is
- (a) $\frac{3}{2}v$ (b) $\sqrt{\frac{3}{2}}v$ (c) $\sqrt{\frac{2}{3}}v$ (d) $\frac{2}{3}v$
26. If total energy of satellite is E , what is its potential energy?
- (a) $2E$ (b) $-2E$ (c) E (d) $-E$
27. A synchronous relay satellite reflects TV signals and transmits TV programme from one part of the world to Mother because its
- (a) period of revolution is greater than the period of rotation of the earth about its axis
(b) period of revolution is less than the period of rotation of the earth about its axis
(c) period of revolution is equal to the period of rotation of the earth about its axis
(d) mass is less than the mass of earth
28. By what per cent the energy of a satellite has to be increased to shift it from an orbit of radius r to $\frac{3}{2}r$?
- (a) 15% (b) 20.3% (c) 66.7% (d) 33.33%
29. The total energy of an artificial satellite of mass m revolving in a circular orbit around the earth with a speed v is
- (a) $\frac{1}{2}mv^2$ (b) $\frac{1}{4}mv^2$ (c) $-\frac{1}{4}mv^2$ (d) $-\frac{1}{2}mv^2$
30. The field in which artificial satellites are useful for practical purpose is
- (a) telecommunication (b) geophysics
(c) meteorology (d) All of these

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31. A launching vehicle carrying an artificial satellite of mass m is set for launch on the surface of the earth of mass M and radius R . If the satellite is intended to move in a circular orbit of radius $7R$, the minimum energy required to be spent by the launching vehicle on the satellite is [Gravitational constant = G]
- (a) $\frac{GMm}{R}$ (b) $-\frac{13GMm}{14R}$ (c) $\frac{GMm}{7R}$ (d) $\frac{GMm}{14R}$
32. A body is orbiting around the earth at a mean radius which is two times as greater as the parking orbit of a satellite the period of the body is
- (a) 4 days (b) 16 days (c) $2\sqrt{2}$ days (d) 64 days
33. The escape velocity from the earth is 11 kms^{-1} . The escape velocity from a planet having twice the radius and the same mean density as the earth would be
- (a) 5.5 kms^{-1} (b) 11 kms^{-1} (c) 15.5 kms^{-1} (d) 22 kms^{-1}
34. The ratio of the radii of the planets P_1 and P_2 is a . The ratio of their acceleration due to gravity is b . The ratio of the escape velocities from them will be
- (a) ab (b) \sqrt{ab} (c) $\sqrt{a/b}$ (d) $\sqrt{b/a}$
35. The mass of the moon is $1/81$ th of earth's mass and its radius is $1/4$ th that of the earth. If the escape velocity from the earth's surface is 11.2 kms^{-1} , its value for the moon will be
- (a) 0.15 kms^{-1} (b) 5 kms^{-1} (c) 2.5 kms^{-1} (d) 0.5 kms^{-1}
36. In uniform circular motion of a particle
- (a) velocity is constant but acceleration is variable (b) velocity is variable but acceleration is constant
(c) both speed and acceleration are constants (d) speed is constant but acceleration is variable
37. The angular velocity of second hand, of a clock is
- (a) $\left(\frac{\pi}{6}\right) \text{ rad s}^{-1}$ (b) $\left(\frac{\pi}{60}\right) \text{ rad s}^{-1}$ (c) $\left(\frac{\pi}{30}\right) \text{ rad s}^{-1}$ (d) $\left(\frac{\pi}{15}\right) \text{ rad s}^{-1}$

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38. A car wheel is rotated to uniform angular acceleration about its axis, Initially its angular velocity is zero. It rotates through an angle θ_1 in the first 2 s, in the next 2 s, it rotates through an additional angle θ_2 , the ratio of $\frac{\theta_2}{\theta_1}$ is
- (a) 1 (b) 2 (c) 3 (d) 5
39. The angular speed of a car increases from 600 rpm to 1200 rpm in 10 s. What is the angular acceleration of the car?
- (a) 600 rad s^{-1} (b) 60 rad s^{-1} (c) $60\pi \text{ rad s}^{-1}$ (d) $2\pi \text{ rad s}^{-1}$
40. Velocity vector and acceleration vector in a uniform circular motion are related as
- (a) both in the same direction (b) perpendicular to each other
(c) both in opposite direction (d) not related to each other
41. One end of a string of length 1.0 m is tied to a body of mass 0.5 kg. It is whirled in a vertical circle with angular frequency 4 rad s^{-1} . The tension in the string when the body is at the lower most point of its motion will be equal to (Take, $g = 10 \text{ ms}^{-2}$)
- (a) 3 N (b) 5 N (c) 8 N (d) 13 N
42. In hydrogen atom, the electron is moving round the nucleus with velocity $2.18 \times 10^6 \text{ ms}^{-1}$ in an orbit of radius 0.528 Å. The acceleration of the electron is
- (a) $9 \times 10^{18} \text{ ms}^{-2}$ (b) $9 \times 10^{22} \text{ ms}^{-2}$ (c) $9 \times 10^{-22} \text{ ms}^{-2}$ (d) $9 \times 10^{12} \text{ ms}^{-2}$
43. A particle P is moving in a circle of radius r with a uniform speed v. C is the centre of the circle and AB is the diameter. The angular velocity of P about A and C is in ratio
- (a) 1 : 1 (b) 1 : 2 (c) 2 : 1 (d) 4 : 1
44. A wheel rotates with a constant angular velocity of 300 rpm. The angle through which the wheel rotates in 1 s is
- (a) $\pi \text{ rad}$ (b) $5\pi \text{ rad}$ (c) $10\pi \text{ rad}$ (d) $20\pi \text{ rad}$

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45. A car of mass 1000 kg moves on a circular track of radius 20 m. If the coefficient of friction is 0.64, then the maximum velocity with which the car can move
 (a) 22.4 ms^{-1} (b) 5.6 ms^{-1} (c) 11.2 ms^{-1} (d) None of these
46. The coefficient of friction between the tyres and the road is 0.25. The maximum speed with which car can be driven round a curve of radius 40 m without skidding is (Given, $g = 10 \text{ ms}^{-2}$)
 (a) 40 ms^{-1} (b) 20 ms^{-1} (c) 15 ms^{-1} (d) 10 ms^{-1}
47. A body moves along a circular path of radius 10 m and the coefficient of friction is 0.5. What should be its angular speed (in rad s^{-1}), if it is not to slip from the surface? (Given, $g = 9.8 \text{ ms}^{-2}$).
 (a) 5 (b) 10 (c) 0.1 (d) 0.7
48. A body is just being revolved in a vertical circle of radius R with a uniform speed. The string breaks when the body is at the highest point. The horizontal distance covered by the body after the string breaks is
 (a) 2R (b) R (c) $R\sqrt{2}$ (d) 4R
49. A railway carriage has its centre of gravity at a height of 0.75 m above the rails, which are 1 m apart. The maximum safe speed at which it could travel round on unbanked curve of radius 100 m is
 (a) 12 ms^{-1} (b) 18 ms^{-1} (c) 22 ms^{-1} (d) 27 ms^{-1}
50. A particle moves along a circle of radius r with constant tangential acceleration. If the velocity of the particle is v at the end of second revolution, after the revolution has started, then the tangential
 (a) $\frac{v^2}{8\pi r}$ (b) $\frac{v^2}{6\pi r}$ (c) $\frac{v^2}{4\pi r}$ (d) $\frac{v^2}{2\pi r}$

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ABHIMANYU BATCH

CHEMISTRY : REVISION TEST-1 (SET A)

Topic: Mole Concept + Redox Reaction + Periodic Properties + S Block + Hydrogen

51. Element with atomic number $[Z=111]$ is named in the honour of
 (a) Hassium (b) Sea Borgium (c) Meitnerium (d) Rontgenium
52. The number of neutrons in a drop of water (20 drops = 1 mL) at 4°C
 (a) 6.023×10^{22} (b) 1.338×10^{22} (c) 6.023×10^{20} (d) 7.338×10^{22}
53. The number of significant figures in 6.0023 are
 (a) 5 (b) 4 (c) 3 (d) 1
54. Which of the following sequence regarding the first ionization potential of coinage metal is correct?
 (a) $\text{Cu} > \text{Ag} > \text{Au}$ (b) $\text{Cu} < \text{Ag} < \text{Au}$ (c) $\text{Cu} > \text{Ag} < \text{Au}$ (d) $\text{Ag} > \text{Cu} < \text{Au}$
55. $\text{MnO}_4^- + \text{SO}_3^{2-} + \text{H}^+ \rightarrow \text{Mn}^{+2} + \text{SO}_4^{2-}$. The number of H^+ ions involved is
 (a) 2 (b) 6 (c) 8 (d) 16
56. How many ml of 1 (M) H_2SO_4 is required to neutralise 10 ml of 1 (M) NaOH solution?
 (a) 2.5 (b) 5.0 (c) 10.0 (d) 20.0
57. Oxidation number of Cl in NOClO_4 is
 (a) +7 (b) -7 (c) +5 (d) -5
58. Two oxides of a metal contain 50% and 40% metal M respectively. If the formula of the first oxide is MO_2 , the formula of the second oxide will be
 (a) MO_2 (b) MO_3 (c) M_2O (d) M_2O_5
59. The amount of energy released when 10^6 atoms of iodine in vapour state are converted to ions is 4.9×10^{-13} J. What is the electron affinity of iodine in eV/atom?
 (a) 2.0 (b) 2.5 (c) 3.06 (d) 2.75

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60. Crystals of which pair are isomorphous
 (a) $\text{ZnSO}_4, \text{SnSO}_4$ (b) $\text{MgSO}_4, \text{CaSO}_4$ (c) $\text{ZnSO}_4, \text{MgSO}_4$ (d) $\text{PbSO}_4, \text{NiSO}_4$
61. Diagonal relationship is shown by
 (a) B - S (b) Li - Mg (c) Mg - Ca (d) S - Se
62. 0.56 gm of gas occupies 280 cm^3 at NTP, then its molecular mass is
 (a) 4.8 (b) 44.8 (c) 2 (d) 22.4
63. Total number of groups in Mendeleef's table
 (a) 18 (b) 9 (c) 7 (d) 10
64. 1.25 g of a solid dibasic acid is completely neutralised by 25 ml of 0.25 molar Ba(OH)_2 solution. Molecular mass of the acid is
 (a) 100 (b) 150 (c) 120 (d) 200
65. The following data are available.
 (i) % of Mg in Mgo and in MgCl_2 (ii) % of C in CO & CO_2
 (iii) % of Cr in $\text{K}_2\text{Cr}_2\text{O}_7$ and K_2CrO_4 (iv) % of Cu isotopes in Cu metal
 The law of multiple proportions may be illustrated by data.
 (a) i & ii (b) only ii (c) i, ii & iii (d) only iii
66. In the reaction,
 $\text{HAsO}_2 + \text{Sn}^{2+} \rightarrow \text{As} + \text{Sn}^{4+} + \text{H}_2\text{O}$ oxidizing agent is
 (a) Sn^{2+} (b) Sn^{4+} (c) As (d) HAsO_2
67. The first and second ionisation enthalpies of a metal are 496 and 4560 kJ mol^{-1} , respectively. Hoe many moles of HCl and H_2SO_4 , respectively, will be needed to react completely with 1 mole of the metal hydroxide?
 (a) 1 and 0.5 (b) 2 and 0.5 (c) 1 and 1 (d) 1 and 2
68. Which of the following ions has the smallest radius ?
 (a) Be^{2+} (b) Li^+ (c) O^{2-} (d) F^-

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69. The standard reduction potentials of Cu^{2+}/Cu and $\text{Cu}^{2+}/\text{Cu}^+$ are 0.337 and 0.153 V respectively. The standard electrode potentials of Cu^+/Cu half cell is
- (a) 0.521 V (b) 0.184 V (c) 0.490 V (d) 0.827 V
70. 2.76 g of silver carbonate on being strongly heated yield a residue weighing:
- (a) 2.64 g (b) 2.48 g (c) 2.16 g (d) 2.32 g
71. The stable oxidation state of Thallium, a IIIA group element is
- (a) +1 (b) +3 (c) -3 (d) +5
72. The acidic, basic and amphoteric oxides, respectively, are:
- (a) MgO , Cl_2O , Al_2O_3 (b) Cl_2O , CaO , P_4O_{10}
(c) Na_2O , SO_3 , Al_2O_3 (d) N_2O_3 , Li_2O , Al_2O_3
73. Rearrange the following (I to IV) in the order of increasing masses and choose the correct answer from (1), (2), (3) and (4) (Atomic mass: N = 14, O = 16, Cu = 63).
- I. 1 molecule of oxygen II. 1 atom of nitrogen
III. 1×10^{-10} g molecular weight of oxygen IV. 1×10^{-10} g atomic weight of copper
- (a) $\text{II} < \text{I} < \text{III} < \text{IV}$ (b) $\text{IV} < \text{III} < \text{II} < \text{I}$ (c) $\text{II} < \text{III} < \text{I} < \text{IV}$ (d) $\text{III} < \text{IV} < \text{I} < \text{II}$
74. One mole of acidified $\text{K}_2\text{Cr}_2\text{O}_7$ on reaction with excess KI will liberate....mole (s) of I_2
- (a) 6 (b) 1 (c) 7 (d) 3
75. H_2 evolved at STP on complete reaction of 27 g of Aluminium with excess of aqueous NaOH would be
- (a) 22.4 (b) 44.8 (c) 67.2 (d) 33.6 litres
76. The number of moles of sodium oxide in 620 g of it is
- (a) 1 mol (b) 10 moles (c) 18 moles (d) 100 moles
77. The ultimate products of oxidation of most of hydrogen and carbon in food stuffs are
- (a) H_2O_2 and CO (b) CH_3OH and CH_3COOH
(c) H_2O and CO_2 (d) H_2 and C

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78. Give the name of the inert gas atom in which the total number of d-electrons is equal to the difference in numbers of total p and s-electrons
 (a) He (b) Ne (c) Ar (d) Kr
79. How many electrons and protons are present in the balanced half reaction $\text{NO}_2^- \rightarrow \text{NO}$
 (a) 1, 2 (b) 1, 1 (c) 2, 2 (d) 0, 1
80. An atom of element has 2K, 8L and 3M electrons. Then that element is placed in
 (a) I A group (b) II A group (c) III A group (d) IV A group
81. The pair of compounds which cannot exist together in solution is:
 (a) NaHCO_3 and NaOH (b) Na_2CO_3 and NaHCO_3
 (c) Na_2CO_3 and NaOH (d) NaHCO_3 and NaCl
82. Moist hydrogen cannot be dried over concentrated H_2SO_4 because:
 (a) it can catch fire (b) it is reduced by H_2SO_4
 (c) a part of it is oxidized by H_2SO_4 (d) it decomposes H_2SO_4
83. The most dangerous method of preparing hydrogen would be by the action of HCl and
 (a) Zn (b) Fe (c) K (d) Al
84. Hydrogen gas is not liberated when the following metals added to dil. HCl :
 (a) Mg (b) Sn (c) Ag (d) Zn
85. Hydrogen after losing one electron forms H^+ resembles in this property with:
 (a) alkali metals (b) halogens
 (c) alkaline earths metals (d) transitional elements
86. Heavy water reacts with Al_4C_3 to form:
 (a) CD_4 and $\text{Al}(\text{OH})_3$ (b) CH_4 and $\text{Al}(\text{OD})_3$ (c) CD_4 and $\text{Al}(\text{OD})_3$ (d) None of these
87. Among the following, which has minimum solubility in water?
 (a) KOH (b) CsOH (c) LiOH (d) RbOH

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88. In which of the following reaction, H_2O_2 is acting as a reducing agent?
- (a) $\text{SO}_2 + \text{H}_2\text{O}_2 \longrightarrow \text{H}_2\text{SO}_4$ (b) $2\text{KI} + \text{H}_2\text{O}_2 \longrightarrow 2\text{KOH} + \text{I}_2$
- (c) $\text{Ag}_2\text{O} + \text{H}_2\text{O}_2 \longrightarrow 2\text{Ag} + \text{H}_2\text{O} + \text{O}_2$ (d) $\text{PbS} + 4\text{H}_2\text{O}_2 \longrightarrow \text{PbSO}_4 + 4\text{H}_2\text{O}$
89. Which can adsorb large volumes of hydrogen gas?
- (a) Colloidal solution of palladium (b) Finely divided nickel
- (c) Colloidal ferric hydroxide (d) Finely divided platinum
90. Maximum concentration of ortho- H_2 in ordinary hydrogen is:
- (a) 75% ortho- H_2 + 25% para- H_2 (b) 25% ortho- H_2 + 75% para- H_2
- (c) 50% ortho- H_2 + 50% para- H_2 (d) 99% para- H_2 + 1% ortho- H_2
91. The hydrogen at the moment of its formation is called:
- (a) atomic (b) ortho (c) para (d) nascent
92. Sodium forms Na^+ and not Na^{2+} because:
- (a) sodium contains only one electron in outermost shell
- (b) first ionization potential is small and the difference in first and second ionization potentials is large
- (c) radius of Na^{2+} is much smaller than of Na^+
- (d) None of these
93. Most reactive metal among the following is:
- (a) K (b) Li (c) Na (d) Mg
94. Acidified solution of chromic acid on treatment with H_2O_2 yields:
- (a) $\text{CrO}_3 + \text{H}_2\text{O} + \text{O}_2$ (b) $\text{Cr}_2\text{O}_2 + \text{H}_2\text{O} + \text{O}_2$
- (c) $\text{CrO}_5 + \text{H}_2\text{O} + \text{K}_2\text{SO}_4$ (d) $\text{H}_2\text{Cr}_2\text{O}_7 + \text{H}_2\text{O} + \text{O}_2$
95. Which is more basic in character?
- (a) RbOH (b) KOH (c) LiOH (d) NaOH

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96. Which of the following compounds on reaction with NaOH and H_2O_2 gives yellow colour?
(a) $\text{Zn}(\text{OH})_2$ (b) $\text{Cr}(\text{OH})_3$ (c) $\text{Al}(\text{OH})_3$ (d) None of these
97. Which alkaline earth metal does not impact the flame colour?
(a) Sr (b) Be (c) Ra (d) Ca
98. Which is used to remove N_2 from air?
(a) Mg (b) P (c) H_2SO_4 (d) CaCl_2
99. Sodium burns in dry air to give:
(a) Na_2O (b) Na_2O_2 (c) NaO_2 (d) Na_3N
100. Which metal does not form ionic hydride?
(a) Ba (b) Mg (c) Ca (d) Sr

Space for Rough Work



Max. Marks: 100

Date: 06.11.2022

ABHIMANYU BATCH
PHYSICS : REVISION TEST-1 (SET A)
Topics: Ray Optics, Circular Motion and Gravitation

Answer Key

1.	(c)	2.	(d)	3.	(c)	4.	(b)	5.	(d)
6.	(d)	7.	(c)	8.	(d)	9.	(a)	10.	(c)
11.	(c)	12.	(c)	13.	(c)	14.	(c)	15.	(c)
16.	(b)	17.	(c)	18.	(d)	19.	(d)	20.	(c)
21.	(d)	22.	(c)	23.	(b)	24.	(a)	25.	(c)
26.	(a)	27.	(c)	28.	(d)	29.	(d)	30.	(d)
31.	(b)	32.	(c)	33.	(d)	34.	(b)	35.	(c)
36.	(d)	37.	(c)	38.	(c)	39.	(d)	40.	(b)
41.	(d)	42.	(b)	43.	(b)	44.	(c)	45.	(c)
46.	(d)	47.	(d)	48.	(a)	49.	(c)	50.	(a)

Date: 06.11.2022

ABHIMANYU BATCH

CHEMISTRY : REVISION TEST-1 (SET A) ANSWER KEY

Topic: Mole Concept + Redox Reaction + Periodic Properties + S Block + Hydrogen

51.	(d)	52.	(b)	53.	(a)	54.	(c)	55.	(b)
56.	(b)	57.	(a)	58.	(b)	59.	(c)	60.	(c)
61.	(b)	62.	(b)	63.	(b)	64.	(d)	65.	(b)
66.	(d)	67.	(a)	68.	(a)	69.	(a)	70.	(c)
71.	(a)	72.	(d)	73.	(a)	74.	(d)	75.	(d)
76.	(b)	77.	(c)	78.	(d)	79.	(a)	80.	(c)
81.	(a)	82.	(c)	83.	(c)	84.	(c)	85.	(a)
86.	(c)	87.	(c)	88.	(c)	89.	(a)	90.	(a)
91.	(d)	92.	(b)	93.	(a)	94.	(c)	95.	(a)
96.	(b)	97.	(b)	98.	(a)	99.	(b)	100.	(b)