

Max. Marks: 100

Date: 06.11.2022

ABHIMANYU BATCH

PHYSICS : REVISION TEST-1 (SET B)

Topics: Ray Optics, Circular Motion and Gravitation

- 1. 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
- 2. 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
- 3. 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) $R^{7/2}$
- 4. 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



5. 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) $\frac{2}{3}v$

- 6. If total energy of satellite is E, what is its potential energy?
 - (a) 2E (b) -2E (c) E (d) -E
- 7. 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
- 8. 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%

9. The total energy of an artificial satellite of mass m revolving in a circular orbit around the earth with a speedy is

(a)
$$\frac{1}{2}mv^2$$
 (b) $\frac{1}{4}mv^2$ (c) $-\frac{1}{4}mv^2$ (d) $-\frac{1}{2}mv^2$

- 10. The field in which artificial satellites are useful for practical purpose is
 - (a) telecommunication (b) geophysics
 - (c) meteorology (d) All of these



- 11. 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
- 12. 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) $\frac{3f}{4}$

13 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
- 14. 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



15. 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 ϕ	d, C \rightarrow a and b, D –	→c and d	l					
	(b)	A \rightarrow a and d, B $-$	\rightarrow b and	c, C \rightarrow b and d, D –	\rightarrow b and	c					
	(c) $A \rightarrow c \text{ and } d, B \rightarrow b \text{ and } d, C \rightarrow b \text{ and } c, D \rightarrow a \text{ and } d$										
	(d) $A \rightarrow b$ and c, $B \rightarrow b$ and c, $C \rightarrow b$ and d, $D \rightarrow a$ and d										
16.	Calcula	ate 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			
17.	A perso radius o	on wants a real imag	ge of his n?	own, 3 times enlarg	ed. Whe	re should he stand in	front of	^a concave mirror of			
	(a)	90 cm	(b)	10 cm	(c)	20 cm	(d)	30 cm			
18.	The ma	gnifying power of a	convex	lens of focal length	10 cm, w	hen the image is forn	ned at the	e near point is			
	(a)	6	(b)	5.5	(c)	4	(d)	3.5			
19.	The velocity ms^{-1} res	locity of image whe spectively, is	en object	t and mirror both are	e moving	towards each other	with velo	ocities 4 ms ^{-1} and 5			
	(a)	-14 ms^{-1}	(b)	15 ms^{-1}	(c)	-9 ms^{-1}	(d)	14 ms^{-1}			





(a)
$$\frac{R}{2(\mu_1 + \mu_2)}$$
 (b) $\frac{R}{2(\mu_1 - \mu_2)}$ (c) $\frac{R}{(\mu_1 - \mu_2)}$ (d) $\frac{2R}{(\mu_2 - \mu_1)}$

- 21. 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
- 22. 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 = -5D (b) F = -40 cm, P = -5D
 - (c) F = -40 cm, P = -2.5 D (d) F = -20 cm, P = -2.5 D
- 23. 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) $-2f_1 + f_2$
- 24. 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
- 25. If the radius of earth's orbit is made 1/4th, then duration of an year will become
 - (a) 8 times (b) 14 times (c) 1/8 times (d) 1/4 times



- 26. 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
- 27. 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?



28. 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, and r_2 , respectively. The magnitude of angular momentum of the comet with respect to the centre of sun is

(a)
$$\left[\frac{GMr_1}{(r_1 + r_2)}\right]^{1/2}$$
 (b) $\left[\frac{GMmr_1}{(r_1 + r_2)}\right]^{1/2}$ (c) $\left[\frac{2Gm^2r_1r_2}{(r_1 + r_2)}\right]^{1/2}$ (d) $\left[\frac{2GMm^2r_1r_2}{(r_1 + r_2)}\right]^{1/2}$

29. 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



- 30. 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}
- 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 1/81th of earth's mass and its radius is 1/4th 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)
$$\left(\frac{\pi}{6}\right)$$
 rad s⁻¹ (b) $\left(\frac{\pi}{60}\right)$ rad s⁻¹ (c) $\left(\frac{\pi}{30}\right)$ rad s⁻¹ (d) $\left(\frac{\pi}{15}\right)$ rad s⁻¹

- 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 A. The acceleration of the electron is
 - (a) $9 \times 10^{18} \,\mathrm{ms}^{-2}$ (b) $9 \times 10^{22} \,\mathrm{ms}^{-2}$ (c) $9 \times 10^{-22} \,\mathrm{ms}^{-2}$ (d) $9 \times 10^{12} \,\mathrm{ms}^{-2}$
- 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) π rad (b) 5π rad (c) 10π rad (d) 20π rad

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) $\frac{v^2}{2\pi r}$





ABHIMANYU BATCH CHEMISTRY : REVISION TEST-1 (SET B) Topic: Mole Concept + Redox Reaction + Periodic Properties + S Block + Hydrogen

51. 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)	$7.338 imes 10^{22}$	
52.	MnO_{4}^{-}	$+$ SO ₃ ⁻² $+$ H ⁺ \rightarrow Mr	$n^{+2} + SC$	D_4^{-2} . The number of H	+ ions in	volved is			
	(a)	2	(b)	6	(c)	8	(d)	16	
53.	The an	nount of energy rele	eased w	hen 10 ⁶ atoms of iod	ine in v	apour state are conve	erted to i	ions is 4.9×10^{-13} J.	
	What is	s the electron affinit	y of iod	ine in eV/atom?					
	(a)	2.0	(b)	2.5	(c)	3.06	(d)	2.75	
54.	Which	of the following sec	quence r	egarding the first ioni	ization p	otential of coinage me	etal is co	prrect?	
	(a)	Cu > Ag > Au	(b)	Cu < Ag < Au	(c)	Cu > Ag < Au	(d)	Ag > Cu < Au	
55.	5. 1.25 g of a solid dibasic acid is completely neutralised by 25 ml of 0.25 molar Ba(OH) ₂ solution. Molecular mas								
	of the a	icid is							
	(a)	100	(b)	150	(c)	120	(d)	200	
56.	Rearrai	nge the following (I	to IV)	in the order of increa	asing ma	asses and choose the	correct a	answer from (1), (2),	
	(3) and	(4) (Atomic mass:	N = 14,	O = 16, Cu = 63).					
	I.	1 molecule of oxy	gen		II.	1 atom of nitrogen			
	III.	$1 \times 10^{-10} \text{g molecu}$	lar weig	ht of oxygen	IV.	1×10^{-10} g atomic w	eight of	copper	
	(a)	II < I < III < IV	(b)	$\mathrm{IV} < \mathrm{III} < \mathrm{II} < \mathrm{I}$	(c)	II < III < I < IV	(d)	III < IV < I < II	
57.	The fire	st and second ionisa	ation ent	halpies of a metal are	e 496 an	d 4560 kJ mol ⁻¹ , resp	ectively.	Hoe many moles of	
	HCl an	d H ₂ SO ₄ , respective	ely, will	be needed to react con	mpletely	with 1 mole of the m	netal hyd	roxide?	
	(a)	1 and 0.5	(b)	2 and 0.5	(c)	1 and 1	(d)	1 and 2	



58.	Total	number of groups in	n Mende	eleef's table						
	(a)	18	(b)	9	(c)	7	(d)	10		
59.	The u	ltimate products of	oxidatio	n of most of hydroger	and car	rbon in food stuffs are	•			
	(a)	H_2O_2 and CO			(b)	CH ₃ OH and CH ₃ C	ЮС			
	(c)	H ₂ O and CO ₂			(d)	H_2 and C				
60.	Whic	h of the following ic	ons has t	he smallest radius ?						
	(a)	Be ²⁺	(b)	Li ⁺	(c)	O^{2-}	(d)	F [_]		
61.	In the	e reaction,								
	HAst	$D_2 + Sn^{2+} \rightarrow As + Sn^{2+}$	$h^{4+} + H_2 G$	O oxidizing agent is						
	(a)	Sn ²⁺	(b)	Sn^{4+}	(c)	As	(d)	HAsO ₂		
62.	Two	oxides of a metal co	ontain 50	0% and 40% metal M	I respect	tively. If the formula	of the f	irst oxide is MO ₂ , the		
	form	ala of the second oxi	de will l	be						
	(a)	MO_2	(b)	MO_3	(c)	M_2O	(d)	M_2O_5		
63.	The stable oxidation state of Thallium, a IIIA group element is									
	(a)	+1	(b)	+3	(c)	-3	(d)	+5		
64.	Oxidation number of Cl in NOClO4 is									
	(a)	+7	(b)	_7	(c)	+5	(d)	-5		
65.	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		
66.	The n	umber of significant	t figures	in 6.0023 are						
	(a)	5	(b)	4	(c)	3	(d)	1		
67.	An at	om of element has 2	2K, 8L a	nd 3M electrons. The	n that ele	ement is placed in				
	(a)	I A group	(b)	II A group	(c)	III A group	(d)	IV A group		



68.	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		
69.	The ac	idic, basic and ampl	hoteric c	oxides, respectively, a	re:					
	(a)	MgO, Cl ₂ O, Al ₂ O ₃	3		(b)	Cl_2O , CaO , P_4O_{10}				
	(c)	Na ₂ O, SO ₃ , Al ₂ O ₃			(d)	N ₂ O ₃ , Li ₂ O, Al ₂ O ₃				
70.	The fo	llowing data are ava	uilable.				CO_{2} s in Cu metal $(d) only iii$ $(d) 2.32 \text{ g}$ $V \text{ respectively. The standard}$ $(d) 0.827 \text{ V}$ of I ₂ $(d) 3$			
	(i)	% of Mg in Mgo a	ind in M	gCl ₂	(ii)	% of C in CO & CC) ₂			
	(iii)	% of Cr in K ₂ Cr ₂ C) 7 and K	$_2$ CrO $_4$	(iv)	% of Cu isotopes in	Cu meta	al		
	The lay	w of multiple propo	rtions m	ay be illustrated by da	ata.					
	(a)	i & ii	(b)	only ii	(c)	i, ii & iii	(d)	only iii		
71.	2.76 g	of silver carbonate	on being	strongly heated yield	l a residu	ie weighing:				
	(a)	2.64 g	(b)	2.48 g	(c)	2.16 g	(d)	2.32 g		
72.	The st	andard reduction p	otentials	of Cu ²⁺ /Cu and Cu ²	²⁺ /Cu ⁺ at	re 0.337 and 0.153	V respec	tively. The standard		
	electro	de potentials of Cu ⁺	/Cu half	f cell is						
	(a)	0.521 V	(b)	0.184 V	(c)	0.490 V	(d)	0.827 V		
73.	One m	ole of acidified K ₂ C	Cr ₂ O ₇ on	reaction with excess	KI will l	iberatemole (s) of I	[₂			
	(a)	6	(b)	1	(c)	7	(d)	3		
74.	Elemen	nt with atomic numb	per [Z=1	11] is named in the h	onour of	2				
	(a)	Hassium	(b)	Sea Borgium	(c)	Meitnerium	(d)	Rontgenium		
75.	How m	nany ml of 1 (M) H_2	SO ₄ is r	equired to neutralise	10 ml of	1 (M) NaOH solution	n?			
	(a)	2.5	(b)	5.0	(c)	10.0	(d)	20.0		
76.	Diagor	nal relationship is sh	lown by							
	(a)	B - S	(b)	Li - Mg	(c)	Mg - Ca	(d)	S - Se		

Learning with the Speed of Mumbai and the Tradition of Kota



77.

85.

86.

(a)

(a)

 $Zn(OH)_2$

KOH

(b)

(b)

Among the following, which has minimum solubility in water?

	(a)	22.4	(b)	44.8	(c)	67.2	(d)	33.6 litres			
78.	The n	umber of moles of s	sodium o	oxide in 620 g of it is							
	(a)	1 mol	(b)	10 moles	(c)	18 moles	(d)	100 moles			
79.	How	many electrons and	protons	are present in the bal	lanced h	alf reaction $NO_2^- \rightarrow N$	NO	33.6 litres 100 moles 0, 1 PbSO4, NiSC potentials is large Mg NaOH Na3N			
	(a)	1,2	(b)	1,1	(c)	2,2	(d)	0, 1			
80.	Crysta	als of which pair are	e isomor	phous							
	(a)	ZnSO ₄ , SnSO ₄	(b)	MgSO ₄ , CaSO ₄	(c)	ZnSO ₄ , MgSO ₄	(d)	PbSO ₄ , NiSO ₄			
81.	Sodiu										
	(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 sn	naller than of Na ⁺							
	(d)	None of these									
82.	Most reactive meal among the following is:										
	(a)	Κ	(b)	Li	(c)	Na	(d)	Mg			
83.	Whicl	h is more basic in cl	haracter'	?							
	(a)	RbOH	(b)	КОН	(c)	LiOH	(d)	NaOH			
84.	Sodiu	m burns in dry air t	o give:								
	(a)	Na ₂ O	(b)	Na ₂ O ₂	(c)	NaO ₂	(d)	Na ₃ N			

Which of the following compounds on reaction with NaOH and H₂O₂ gives yellow colour?

Cr(OH)₃

CsOH

None of these

RbOH

H₂ evolved at STP on complete reaction of 27 g of Aluminium with excess of aqueous NaOH would be

Space for Rough Work

(c)

(c)

 $Al(OH)_3$

LiOH

(d)

(d)



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87.	The pair of compounds which cannot exist together in solution is:									
	(a)	NaHCO ₃ and NaC	Н		(b)	Na ₂ CO ₃ and NaHC	O ₃			
	(c)	Na ₂ CO ₃ and NaOI	Η		(d)	NaHCO3 and NaCl				
88.	Which	alkaline earth meta	l does no	ot impact the flame co	olour?					
	(a)	Sr	(b)	Be	(c)	Ra	(d)	Ca		
89.	Which	is used to remove N	N ₂ from a	air?						
	(a)	Mg	(b)	Р	(c)	H_2SO_4	(d)	CaCl ₂		
90.	Which	metal does not form	n ionic h	ydride?						
	(a)	Ba	(b)	Mg	(c)	Ca	(d)	Sr		
91.	Hydrog	gen after losing one	electron	forms H ⁺ resembles	in this p	roperty with:				
	(a)	alkali metals			(b)	halogens				
	(c)	alkaline earths me	tals		(d)	transitional element	S			
92.	Moist hydrogen cannot be dried over concentrated H ₂ SO ₄ because:									
	(a)	it can catch fire	atch fire (b) it is reduced by H_2SO_4							
	(c)	a part of it is oxidi	zed by I	H_2SO_4	(d)	it decomposes H ₂ SC	D_4			
93.	Which	can adsorb large vo	olumes o	f hydrogen gas?						
	(a)	Colloidal solution	of palla	dium	(b)	Finely divided nick	el			
	(c)	Colloidal ferric hy	droxide		(d)	Finely divided platinum				
94.	The m	ost dangerous metho	od of pre	eparing hydrogen wou	ıld be by	the action of HCl an	d			
	(a)	Zn	(b)	Fe	(c)	K	(d)	Al		
95.	Hydrog	gen gas is not libera	ted when	n the following metal	s added	to dil. HCl:				
	(a)	Mg	(b)	Sn	(c)	Ag	(d)	Zn		
96.	Heavy	water reacts with A	l_4C_3 to f	form:						
	(a)	CD ₄ and Al(OH) ₃	(b)	CH ₄ and Al(OD) ₃	(c)	CD ₄ and Al(OD) ₃	(d)	None of these		



Learning with the Speed of Mumbai and the Tradition of Kota

97.	Acidifi	ed solution of chror	nic acid	on treatment with H ₂	D ₂ yields	3:		
	(a)	$CrO_3+H_2O+O_2\\$			(b)	$Cr_2O_2+H_2O+O_2\\$		
	(c)	$CrO_5 + H_2O + K_2S$	SO_4		(d)	$H_2Cr_2O_7 + H_2O + O_2$	2	
98.	In whic	h of the following i	reaction,	H ₂ O ₂ is acting as a re	ducing a	agent?		
	(a)	$SO_2 + H_2O_2$ ———	\rightarrow H ₂ S	O_4	(b)	2KI + H ₂ O ₂	→ 2KOI	$H + I_2$
	(c)	$Ag_2O + H_2O_2$ —	$\longrightarrow 2$	$Ag + H_2O + O_2$	(d)	PbS + 4H ₂ O ₂	\rightarrow PbS	$O_4 + 4H_2O$
99.	Maxim	um concentration of	f ortho-H	H ₂ in ordinary hydrog	en is:			
	(a)	75% ortho- $H_2 + 25$	5% para-	\cdot H ₂	(b)	25% ortho-H ₂ + 75%	6 para-H	[₂
	(c)	50% ortho- H_2 + 50	0% para-	H_2	(d)	99% para- H_2 + 1% ortho- H_2		
100.	The hydrogeneity of the two second se	drogen at the mome	ent of its	formation is called:				
	(a)	atomic	(b)	ortho	(c)	para	(d)	nascent



Max. Marks: 100



Date: 06.11.2022

ABHIMANYU BATCH

PHYSICS : REVISION TEST-1 (SET B)

Topics: Ray Optics, Circular Motion and Gravitation

1.	(d)	2.	(c)	3.	(b)	4.	(a)	5.	(c)
6.	(a)	7.	(c)	8.	(d)	9.	(d)	10.	(d)
11.	(c)	12.	(d)	13.	(c)	14.	(b)	15.	(d)
16.	(d)	17.	(c)	18.	(d)	19.	(a)	20.	(c)
21.	(c)	22.	(c)	23.	(c)	24.	(c)	25.	(c)
26.	(b)	27.	(c)	28.	(d)	29.	(d)	30.	(c)
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)

Answer Key



ABHIMANYU BATCH CHEMISTRY : REVISION TEST-1 (SET B) ANSWER KEY Topic: Mole Concept + Redox Reaction + Periodic Properties + S Block + Hydrogen

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