



## Studymate Foundation Paper

Date : 23/12/2018 Duration : 90 Min. Max. Marks : 90		Scienc	CLASS			
			x			
Ge. 1. 2. 3. 4. 5.	neral Instructions: All questions are co Each question is alle No deduction from There is only <b>ONE</b> treated as wrong res Use of calculators is	mpulsory. otted ONE mark for each correct the total score will be made if no correct response for each quest ponse and marks for wrong respo not allowed.	t response. response is indica tion. Filling up <b>M</b> e onse will be deduc	ted for the que <b>ORE THAN</b> ted accordingly	estion in the answer <b>ONE</b> response in 7.	r sheet. each question will be
		Sect	ion A – Sci	ence		
1.	A current of 1 a cross-section	A is drawn by a filament n of the filament in 16 s	of an electric econd would	bulb. Nun be roughly	nber of electro	ns passing through
	(a) 10 <sup>20</sup>	(b) 10 <sup>16</sup>	(c)	1018	(d)	1023
2.	Which of the f	ollowing represents vol	tage?			
	(a) $\frac{\text{work do}}{\text{current} \times}$	ne time	(b)	work don	e × charge	
	(c) work don	e×time ent	(d)	work don	e × charge × t	time
3.	A student carr with resistanc	ries out an experiment a ces $R_1$ , $R_2$ and $R_3$ respec	and plots the ` tively. Which	V-I graph o of the follo	f three sample owing is true?	es of nichrome wire
		I	R <sub>1</sub> R <sub>2</sub>	R₃ V		
	(a) $R_1 = R_2 = H_2$	$R_3$ (b) $R_1 > R_2 >$	R <sub>3</sub> (c)	$R_{2} > R_{3} >$	R <sub>1</sub> (d)	$R_{3} > R_{2} > R_{1}$
4.	A cylindrincal Another condu	l conductor of length <i>l</i> uctor of length 2 <i>l</i> and re	and uniform sistnace R of	area of cr the same r	oss-section A naterial has a	has resistnace R. rea of cross-section
	(a) A/2	(b) 3A/2	(c)	2A	(d)	3A
5.	The resistivity	does not change if				
	(a) the mater	ial is changed.				
	(b) the tempe	erature is changed.	1			
	(c) the shape	or the resistor is changed	ged.			
6.	A 1000 nichr	ome wire is doubled on	itself. The ne	ew resistar	ice of this wir	re is
_,	(a) 25Ω	(b) 50Ω	(c)	100Ω	(d)	400Ω

- 7. Magnetic induction does not involve
  - (a) placing a magnetic material near a magnet.
  - (b) touching a magnetic material with a magnet.
  - (c) induction of opposite pole on the nearer side of magnetic material facing the magnet.
  - (d) induction of similar pole on the farther side of magnetic material away from the magnet.
- **8.** Electrons are going around a circle in an anticlockwise direction as shown. At the center of the circle, they produce a magnetic field that is



(d) to the right

9. Commercial electric motors do not use

(a) into the page

- (a) an electromagnet to rotate the armature.
- (b) effectively large number of turns of conducting wire in the current-carrying coil.
- (c) a permanent magnetic to rotate the armature.
- (d) a soft iron core on which the coil is wound.
- **10.** Choose the incorrect statement
  - (a) Fleming's right-hand rule is a simple rule to know the direction of induced current.
  - (b) The right-hand thumb rule is used to find the direction of magnetic fields due to currentcarrying conductors.
  - (c) The difference between the direct and alternating currents is that the direct current always flows in one direction, whereas the alternating current reverses its direction periodically.
  - (d) In India, the AC changes direction after every 1/50 second.
- **11.** The most important safety method used for protecting home appliances from short-circuiting or overloading is
  - (a) earthing (b) use of fuse
  - (c) use of stabilizers (d) use of electric meter
- **12.** In a hydroelectric power plant, more electrical power can be generated if water falls from a greater height because
  - (a) its temperature increases.
  - (b) larger amount of potential energy is converted into kinetic energy.
  - (c) the electricity content of water increases with height.
  - (d) more water molecules dissociate into ions.
- **13.** The major problem in harnessing nuclear energy is how to
  - (a) split nuclei?
  - (b) sustain the reaction?
  - (c) dispose off spent fuel safely?
  - (d) convert nuclear energy into electrial energy?
- **14.** Choose the correct statement
  - (a) Sun is an expensive source of energy.
  - (b) There is infinite storage of fossil fuel inside the earth.
  - (c) Hydro and wind energy plants are renewable sources of energy.
  - (d) Waste from a nuclear power plant can be easily disposed off.

**15.** The power of a lens is -3.5 D. The lens is (a) Convex (b) Plano-convex (c) Concave (d) Plano-concave **16.** Sodium carbonate solution is added to dilute ethanoic acid. It is observed that: (a) A gas evolves (b) A solid settles at the bottom (c) The mixture becomes warm (d) The colour of the mixture 17. 2ml of acetic acid is added to 5ml of water and was shaken up for 1minute, it was noticed that: (a) The acid formed a separate layer on the top of water (b) A clear and homogeneous solution is formed (c) Water formed a separate layer on the top of the acid (d) A pink and clear solution is formed **18.** Which of the following is the correct order of size: (a)  $I^+ > I^- > I$ (b)  $I^- > I > I^+$ (c)  $I > I^+ > I^-$ (d)  $I > I^- > I^+$ **19.** Chemical changes are \_\_\_\_\_. (a) temporary, reversible and a new substance is produced. (b) always accompanied by exchange of light (c) permanent, irrevarsible and a new substance is produced. (d) never accompanied by exchange of light and heat energy. **20.** In one molecule of ammonium sulphide there are (a) 2 atoms of N, 8 atoms of H, and 1 atoms of S (b) 1 atom of N, 4 atoms of H, and 1 atom of S (c) 1 atom of N, 4 atoms of H, and 2 atoms of S (d) 2 atoms of N, 8 atoms of H, and 2 atoms of S **21.** Wheih of the following is not a mineral acid? (a) Hydrochloric acid (b) Citric acid (c) Sulphuric acid (d) Nitric acid **22.** What happens when a solution of an acid ismixed with a solution of a base in a test tube? (i) The temperature of the solution increases generally. (ii) The temperature of the solution decreases. (iii) The temperature of the solution remains the same. (iv) Salt formation takes places. (b) (i) and (iii) (c) (ii) and (iii) (a) (i) only (d) (i) and (iv) **23.** Which of the following method is not used in preparing a base? (a) Burning of metal in air. (b) Adding water to a metal oxide. (c) Reaction between an acid and base. (d) Heating metal carbonates. **24.** The correctly balanced equation for FeS +  $O_2 \rightarrow Fe_2O_3 + SO_2$  is \_\_\_\_\_\_. (a)  $2\text{FeS} + \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3 + 4\text{SO}_2$ (b)  $2\text{FeS} + 3\text{O}_2 \rightarrow \text{Fe}_2\text{O}_3 + 4\text{SO}_2$ (c)  $4\text{FeS} + 4\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3 + 2\text{SO}_2$ (d)  $4\text{FeS} + 7\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3 + 4\text{SO}_2$ 25. Which of the following is not a decomposition reaction? (a)  $CaCO_3 \rightarrow CaO + CO_2$ (b)  $2KClO_3 \rightarrow 2KCl + 3O_2$ (c) Digestion of food in the body (d)  $H_2 + Cl_2 \rightarrow 2HCl$ **26.** What happens when dilute hydrochloric acid is added to iron fillings? (a) Hydrogen gas and iron chloride are produced. (b) Chlorine gas and iron hydroxide are produced. (c) No eraction takes palce.

STUDY

(d) Iron salt and water are produced.

## STUDY mate helps excel in boards

27.	. The most abundant metal in the earth crust is?								
	(a) Al (b) Fe (c)	) O (d) Cu							
28.	Because of high electropositivity, the atom of me	Because of high electropositivity, the atom of metals can easily form							
	(a) Positive ions (b) Negatively ions (c)	) Neutral ions (d) Covalent bonds							
29.	. What happens when calcium is treated with wat	er?							
	(i) It does not react with water								
	(ii) It reacts violently with water	(ii) It reacts violently with water							
	(iii) It reacts less violently with water	(iii) It reacts less violently with water							
	(iv) Bubbles of hydrogen gas formed stick to the surgace of calcium								
	(a) (i) and (iv) (b) (ii) and (iii) (c)	) (i) and (ii) (d) (iii) and (iv)							
30.	• The composition of aqua-regia is								
	(a) $\text{Dil.HCl}: \text{Conc.} \text{HNO}_3$ (b)	) Conc. HCl : dil. HNO <sub>3</sub>							
	(c) Conc. HCl : Conc. HNO $_3$ (d)	) Dil. HCl : Dil. HNO <sub>3</sub>							
31.	. When carbon monoxide combines with haemogle	obin it forms							
	(A) Oxyhaemoglobin (B	) Carbonic Acid							
	(C) Carboxyhaemoglobin (D	) Carbaminohaemoglobin							
32.	. Heart failure is								
	(A) Heart stops functioning								
	(B) Sufficient amount of blood is not pumped by	the heart							
	(C) Oxygen is less in the environment								
	(D) Both A and B								
33.	• Stress hormone in plants is								
	(A) Auxin (B) Cytokinin (C	b) Abscisic acid (D) Ethylene							
34.	• Who among the following won the Stockholm Wa	ter Prize.							
	(A) Dr Rajender Prasad (B	) Raja Ramanna							
	(C) Har Govind Khorana (D	) Dr. Rajendra Singh							
35.	• The offspring resulting from a cross between two p	ure homozygous recessives would be							
	(A) 50% homozygous recessive and 50% homozy	gous dominant							
	(B) 75% homozygous recessive and 25% heterozy	ygous dominant							
	<ul> <li>(C) 75% nomozygous recessive and 25% homozy</li> <li>(D) 100% homozygous recessive</li> </ul>	gous dominant							
26	(D) 100% nonozygous recessive	wing the stages of development because							
30.	(A) Space is not enough for the development of t	the testis							
	(A) Space is not enough for the development of (	the testis							
	(B) Spermatogenesis require higher temperature than the body temperature								
	(B) Spermatogenesis require nigher temperature	e man the body temperature							
	<ul><li>(B) Spermatogenesis require higher temperature</li><li>(C) Testis are overprotected.</li><li>(D) Spermatogenesis require lower temperature</li></ul>	than the body temperature							
37	<ul> <li>(B) Spermatogenesis require higher temperature</li> <li>(C) Testis are overprotected.</li> <li>(D) Spermatogenesis require lower temperature</li> <li>The concept of Biosphere Reserve' was evolved by</li> </ul>	than the body temperature							
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37. 38.	<ul> <li>(B) Spermatogenesis require higher temperature</li> <li>(C) Testis are overprotected.</li> <li>(D) Spermatogenesis require lower temperature</li> <li>7. The concept of 'Biosphere Reserve' was evolved b</li> <li>(A) Government of India (B)</li> <li>(C) UNESCO (D)</li> <li>(D)</li> </ul>	than the body temperature y Botanical Survey of India ) UNDP							
37. 38.	<ul> <li>(B) Spermatogenesis require higher temperature</li> <li>(C) Testis are overprotected.</li> <li>(D) Spermatogenesis require lower temperature</li> <li>7. The concept of 'Biosphere Reserve' was evolved b</li> <li>(A) Government of India (B)</li> <li>(C) UNESCO (D)</li> <li>(C) Human being belongs to the species of</li> <li>(A) Homo erectus (B)</li> </ul>	than the body temperature y ) Botanical Survey of India ) UNDP ) Homo habillis							
37. 38.	<ul> <li>(B) Spermatogenesis require higher temperature</li> <li>(C) Testis are overprotected.</li> <li>(D) Spermatogenesis require lower temperature</li> <li>The concept of 'Biosphere Reserve' was evolved b</li> <li>(A) Government of India</li> <li>(B) (C) UNESCO</li> <li>(D) Human being belongs to the species of</li> <li>(A) Homo erectus</li> <li>(B) (C) Homo sapiens sapiens</li> </ul>	than the body temperature y ) Botanical Survey of India ) UNDP ) Homo habillis ) Hominidae							

39.	An endothermic reaction using sunlight in the plants produces two compounds X and Y.The two compounds produced are					
	(A) $X-CO_{2},Y-H_{2}O$	(B)	$X-C_{e}H_{12}O_{e}, Y-C$	)		
	(C) X-Carbon Dioxide, Y-O <sub>2</sub>	(D)	X-C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> , Y-H	_ Q		
40.	When Carbon Dioxide is passed through	Lime wat	er it turns milk	y becau	se of	
	(A) the formation of soluble Calcium Car	bonate				
	(B) the displacement of Calcium					
	(C) the formation of Calcium Oxide					
	(D) the formation of insoluble Calcium C	Carbonate				
41.	Heredity or inheritance of specific traits	became c	learer due to			
	(A) Lamarck's theory	(B)	Mendel worke	d on gar	den peas	
	(C) Darwinism	(D)	Neo-Darwinis	m		
42.	Prenatal sex determination is banned by	the law in	n India because	e of the-		
	(A) High cost charged by the doctor	(B)	Increase in ca	ase of m	ale foeticide	
	(C) Possible danger of mother's health	(D)	Increase in ca	ase of fe	male foeticide	
43.	is the part of the alimentary	r canal wh	ere maximum	absorpt	ion of digested food	
	takes place					
	(A) Duodenum (B) Colon	(C)	Jejenum	(D)	Ileum	
44.	Trophic level in an ecosystem represents	S				
	(A) oxygen level (B) water level	(C)	energy level	(D)	salt level	
45.	In Drosophila the diploid number is 8. Ho sperm?	ow many c	hromosomes a	re prese	nt in the Drosophila	
	(A) 8	(B)	4			
	(C) cannot determine from this informat	tion (D)	16			
	Section – 1	B (Mathe	ematics)			
46.	The value of p so that the quadratic equa	ation $x^2 + \xi$	5px + 16 = 0 ha	s no rea	l roots, is	
	(a) $-\frac{8}{5}  (b) p < 5$	(c)	<i>p</i> < 8	(d)	$-rac{8}{5} \le p \le 0$	
47.	If $a$ , $a - 2$ and $3a$ are in A.P., then the val	lue of <i>a</i> is				
	(a) -2 (b) -3	(c)	3	(d)	2	
48.	The ratio of the length of a rod and its sh	adow is 1	$:\sqrt{3}$ . The angle	e of elev	ation of the sum is	
	(a) 30° (b) 60°	(c)	45°	(d)	None of these	
49.	What is the angle of elevation of the sum equal to its height?	n when the	e length of the	shadow	of a vertical pole is	
	(a) 45° (b) 60°	(c)	30°	(d)	None of these	
50.	A tower is 50m high. Its shadow is 'x' met it is 30°. Find the value of 'x'	res shorte	er when the sun	ı's altitu	de is 45° than when	
	(a) $50(\sqrt{3}-1)m$ (b) $\frac{200}{\sqrt{3}}m$	(c)	$100\sqrt{3}$ m	(d)	None of these	
51.	The length of tangents drawn from an ex	ternal poi	int to a circle a	re		
	(a) equal (b) one third	(c)	one fourth	(d)	half	

**52.** A point P is 26 cm away from the centre of a circle and the length of the tanget drawn from P to the circle is 24 cm. Find the radius of the circle.

	A							
	$( \cdot ) $ $P$							
				Ó				
				B				
	(a)	10 cm	(b)	11 cm	(c)	16 cm	(d)	15 cm
53	То	construct a triangle	simi	ilar to a given AAB	∩ wit	$\frac{2}{100}$ the sides $\frac{2}{100}$ of the	e cor	responding sides of
00.	100	C first drow a row		ush that angle CPN		5		the opposite side of
	Aw	ith respect to BC. 7	The n	ninimum number o	of poi	ints to be located a	t equ	al distances on ray
	BX	is			1		1	5
	(a)	3	(b)	8	(c)	5	(d)	2
54.	То	draw a pair of tange	ents t	to a circle which ar	re ino	clined to each oteh	r at a	an angle of 30°, it is
	req	uired to draw tange	ents	at end points of th	iose	two radii of the ci	rcle.	The angle between
	the	m, should be	( <b>1</b> _1)	00%	(a)	600	(പ)	1000
EE	(a) The	150°	(D) inclos	$90^{\circ}$	(C)	The notic of their (	(a)	120 <sup>°</sup>
<b>JJ</b> .	(a)	$2 \cdot 2$	(L)	s are in the ratio $4$	· : 9.		(d)	Nepe of these
56	(a)	2:3	(D)	4:9	(C)	9:4	(a)	None of these
50.	A Si is h	ent in the form of a	in ti	the form of a square	, enc de is	closes an area of 12	i sq.	cm. The same wire
	(a)	$111 \text{ cm}^2$	(b)	$84 \text{ cm}^2$	(c)	$259 \text{ cm}^2$	(d)	$154 \text{ cm}^2$
57.	If th	THE OF OF 65 and 11	(S)	of the form $(65m -$	(0)	then $m =$	(4)	
•	(a)	1	(h)	2	(c)	3	(d)	4
58.	(a) For	some positive inter	per n	- every positive odd	d int	eger is of the form	(4)	
	(a)	n-1	(b)	n+1	(c)	2n	(d)	2 <i>n</i> +1
59.	A p	ositive integer n wh	en di	ivided by 9. gives 7	as re	emainder. What wil	1 be t	he remainder when
	(3 <i>n</i>	– 1) is divided by 9?	)					
	(a)	1	(b)	2	(c)	3	(d)	4
60.	If o	ne zero of the quad	ratic	polynomial $kx^2 + 3$	x + k	k is 2, then the valu	ie of	<i>k</i> is
		5		-5		6		-6
	(a)	6	(b)	6	(C)	5	(d)	5
61.	If th	ne zeros of the quad	Iratio	polynomial $ax^2 + b$	bx +	c, where $a \neq 0$ and	$c \neq 0$	0, are equal, then
	(a)	c and $a$ have the s	ame	sign	(b)	c and a have oppo	site	signs
	(c)	c and $b$ have the s	ame	sign	(d)	c and a have oppo	site	signs
62.	The	zeroes of the quad	ratic	polynomial $x^2 + kx$	c + k,	where $k > 0$		-
	(a)	are both positive			(b)	are both negative		
	(c)	are always equal			(d)	are always unequ	al	
63.	On	dividing a polynom	oal p	(x) by a non-zero po	olyno	omial $q(x)$ , let $q(x)$ be	e the	quotient and $r(x)$ be
	the	reminder, then $p(x)$	) = q	(x). $q(x) + r(x)$ , wher	e			
	(a)	r(x) = 0 always			(b)	$\deg r(x) < \deg g(x)$	alwa	ys
	(c)	either $r(x) = 0$ or de	g r(x	$) < \deg g(x)$	(d)	r(x) = g(x)		
64.	For	what value of $k  do t$	the e	quations $kx - 2y = 3$	3 and	d 3 $x$ + $y$ = 5 represe	nt tw	vo lines intersecting
	at a	unique point?			(1)	1 0		
	(a)	$\kappa = 3$			(b)	$\kappa = -3$		<i>c</i>
	(C)	<i>k</i> = 6			(d)	all real values exc	cept -	-6

<b>65</b> .	One equation of a pair of dependent equations is $-5x + 2y = 4$ . The second equation can be					
	(a) $10x + 4y + 8 = 0$	(b) $-10x - 4y + 8 = 0$	(c)	-10x + 4y = 8	(d)	10x - 4y = 8
<b>66</b> .	The pair of equations $y = 0$ and $y = -5$ has					
	(a) one solution		(b)	two solutions		
	(c) infinitely many sol	lutions	(d)	no solution		
67.	In a $\triangle ABC$ , $\angle C = 3 \angle B =$	= 2 ( $\angle A$ + $\angle B$ ), then $\angle B$ =	= ?			
	(a) 20°	(b) 40°	(c)	60°	(d)	80°
68.	In $\triangle ABC$ and $\triangle DEF$ , it is	is given that $\frac{AB}{DE} = \frac{BC}{FD}$ ,	ther	1		
	(a) ∠B = ∠E	(b) ∠A = ∠D	(c)	$\angle B = \angle D$	(d)	$\angle A = \angle F$
<b>69</b> .	If $\triangle ABC \sim \triangle EDF$ and $\triangle A$	ABC is not similar to $\Delta d$	EF, t	hen which of the fo	llowi	ng is not ture?
	(a) $BC.EF = AC.FD$	(b) AB.EF = AC.DE	(c)	BC.DE = AB.EF	(d)	BC.DE = AB.FD
70.	If in $\triangle ABC$ and $\triangle PQR$ , v	we have: $\frac{AB}{QR} = \frac{BC}{PR} = \frac{CA}{PR}$	$\frac{A}{2}$ , th	en		
	(a) $\Delta PQR \sim \Delta CAB$	(b) $\triangle PQR \sim \triangle ABC$	(c)	$\Delta CBA \sim \Delta PQR$	(d)	$\Delta$ BCA ~ $\Delta$ PQR
71.	The line segments join	ing the midpoints of th	e sid	les of a triangle for	m foı	ır triangles, each of
	which is					
	(a) congruent to the o	riginal triangle	(b)	similar to the ori	gınal	triangle
70	(c) an isosceles triang	gle	(a)	an equilateral triangle		
12.	$\ln(\tan^2 45^2 - \cos^2 50^2) =$	$x \sin 45^{\circ} \cos 45^{\circ}, \tan 1$	<i>x</i> =			
	(a) 2	(b) –2	(c)	$\frac{1}{2}$	(d)	$\frac{-1}{2}$
73.	If $\tan x = 3\cot x$ , then y	(=		4		2
	(a) 45°	(b) 60°	(c)	30°	(d)	15°
	1	1	( )		( )	
74.	If $\sin \alpha = \frac{1}{2}$ and $\cos \beta = \frac{1}{2}$	$\frac{1}{2}$ , then $(\alpha + \beta) =$				
	(a) 0°	(b) 30°	(c)	60°	(d)	90°
75.	If $\cos A + \cos^2 A = 1$ , th	$nen (sin^2A + sin^4A) =$				
	$(a) \frac{1}{a}$	(h) ()	(a)	1	(പ)	4
	<sup>(a)</sup> 2	(0) 2	(C)	1	(u)	+
76.	(sec A + tan A) (1 – sin	A) =				
	(a) sin A	(b) cos A	(c)	sec A	(d)	cosec A
77.	$(\cos^4\theta - \sin^4\theta) =$			<b>a</b>	(1)	2
-	(a) $1 - 2 \sin^2 \theta$	(b) $1 - 2\cos^2\theta$	(c)	$2 - \sin^2\theta$	(d)	$2 - \cos^2 \theta$
78.	$\sin \theta \cos (90^{\circ} - \theta) + \cos \theta$	$(\theta \sin (90^\circ - \theta)) = ?$				
	(a) 0	(b) 1	(c)	2	(d)	$\frac{3}{2}$
79.	The cumulative freque	ency table is useful in o	leter	mining the		
	(a) mean	(b) median	(c)	mode	(d)	all of these
80.	If $x_1$ 's are the midpoint	ts of the class interval	s of a	a grouped data, $f_1'$	s are	the corresponding
	frequencies and $\overline{x}$ is t	the mean, then $\sum f_1(x_1)$	$-\overline{x})$	=		
	(a) 1	(b) O	(c)	-1	(d)	2

81.	While computing the mean of the grouped data, we assume that the frequencies are					
	(a) evenly distributed	over the classes	(b)	centred at the cla	lss n	arks of the classes
	(c) centred at the lowe	er limits of the classes	(d)	centred at the up	per l	imits of the classes
82.	The relation between r	nean, mode and media	n is			
	(a) mode = $(3 \times \text{mean})$	– (2 × median)	(b)	mode = $(3 \times \text{media})$	an) –	(2 × mean)
	(c) median = $(3 \times \text{mea})$	n) – (2 × mode)	(d)	mean = (3 × medi	an) –	- (2 × mode)
83.	Three coins are tossed simultaneously. What is the probability of getting exactly two heads?					
	(a) $\frac{1}{2}$	(b) $\frac{1}{4}$	(c)	$\frac{3}{8}$	(d)	$\frac{3}{4}$
84.	If the points $A(1, 2) O(0)$	), 0) and C( <i>a</i> , <i>b</i> ) are colli	inea	r, then		
	(a) $a = b$	(b) $a = 2b$	(c)	2a = b	(d)	a + b = 0
85.	Two friends were born in the year 2000. What is the probability that they have the same birthday?					
	(a) $\frac{1}{365}$	(b) $\frac{1}{366}$	(c)	$\frac{2}{365}$	(d)	$\frac{1}{183}$
86.	What point on x-axis is	equidistant from the p	oints	A(7, 6) and B(–3, 4	-)?	
	(a) (0, 4)	(b) (-4, 0)	(c)	(3, 0)	(d)	(0, 3)
87.	The ratio of the total su cm and height 20 cm i	urface area to the latera s	d sui	face area of a cylin	lder	with base radius 80
	(a) 2:1	(b) 3:1	(c)	4:1	(d)	5:1
88.	In a right circular cone	e, the cross section mad	le by	a plane parallel to	the	base is a
	(a) sphere	(b) hemisphere	(c)	circle	(d)	a semicircle
89.	On increasing each of t increased by	he radius of the base ar	nd th	e height of a cone b	y 20	% its volume will be
	(a) 20%	(b) 40%	(c)	60%	(d)	72.8%
90.	If P(-1, 1) is the midpoi	int of the line segment j	joini	ng A(–3, <i>b</i> ) and B(1	, <i>b</i> +	4), then <i>b</i> =
	(a) 1	(b) –1	(c)	2	(d)	0

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