Sno	Answer Key	Question
51	B	If x+1/x=5 then find value of $2x/(3x^2-5x+3)$ is equal to A. 5 B. 1/5 C. 3 D. 1/3
52	B	the simplified value of $(1-\frac{2xy}{x^2+y^2}) \div (\frac{x^3+y^3}{x-y}\ 3\ xy)$. A. $1/(x^2-y^2)$ B. $1/(x^2+y^2)$ C. $1/(x-y)$ D. $1/(x+y)$
53	B	Find the value of 1/5 + (999494/495)*99 A. 90000 B. 99000 C. 90900 D. 99990
54	A	If x = 11 then the value of $x^5-12x^4+12x^3-12x^2+12x-1$ A. 11 B. 10 C. 12 D. -10
55	A	If p =101, then the value of $\sqrt[3]{p(p^2-3p+3)-1}$ A. 100 B. 101

		C. 10 D. 1000
56	B	If $a^{(1/3)} = 11$ then $a^2 - 331a$ A. 1331331 B. 1331000 C. 1334331 D. 1330030
57	D	If $11\sqrt{n} = \sqrt{112} + \sqrt{343}$, n = ? A. 3 B. 11 C. 13 D. 7
58	C	if x+y = sqrt3 and x-y = sqrt2 then the value of $8xy(x^2+y^2)$ is A. 6 B. sqrt 6 C. 5 D. sqrt 5
59	A	If $2^x = 3^y = 6^{-z}$ then $(1/x + 1/y + 1/z)$ = A. 0 B. 1 C. 3/2 D. -1/2
60	D	if x = 3+2√2 then find the value of $x^2 + x^{-2}$ A. 36 B. 30 C. 32 D. 34
61	D	Find the value of

		(0.355 x 0.5555 x 2.025) / (0.225 x 1.775 x 0.2222) A. 5.4 B. 4.58 C. 4.5 D. 5.45
62	A	$(0.01024)^{1/5}$ is equals to A) 0.4 B) 4.0 C) 0.04 D) 0.00004
63	B	The value of $(243)^{0.16}$ x $(243)^{0.04}$ A) 0.16 B) 3 C) 1/3 D) 0.04
64	D	If a and b are two positive integer such that $a^2 - b^2 = 19$ then value of a is A) 19 B) 20 C) 9 D) 10
65	B	Sqrt[$(798)^2$+0.404x0.798+$(0.202)^2$] +1 A) 0 B) 2 C) 1 D) 0.404

66	A	The sum of three consecutive odd numbers is 147. Find the number A) 47 B) 48 C) 49 D) 51
67	B	A student was asked to find 5/16 of a number. By mistake he found 5/6 of that number and his answer was 250 more than the correct answer. Find the given number. (a)300 (b)480 (c)450 (d)500
68		The HCF and LCM of two numbers are 12 and 336 respectively. If one number is 84, find the other number? (a)48 (b)36 (c)72 (d)96
69	C	The value of $(\cos^2 60 + 4\sec^2 30 - \tan^2 45)/(\sin^2 30 + \cos^2 30)$ (a) 64/sqrt(3) (b) 55/12 (c) 67/12 (d) 67/10
70	B	The expression (tan57+cot37)/(tan33+cot53)

		A. tan 33° cot 57° B. tan 57° cot 37° C. tan 33° cot 53° D. tan 33° cot 37°
71	C	If $(\sin\theta+\cos\theta)/(\sin\theta-\cos\theta) = 3$ Then the value of $\sin^4\theta$ is A. 16/25 B. 2/3 C. 1/9 D. 2/9
72	A	If $\sin\theta-\cos\theta = 7/13$ and $0^0<\theta<90^0$ then the value of $\sin\theta+\cos\theta$ is A. 17/13 B. 13/17 C. 1/13 D. 1/17
73	B	If $a^2\sec^2x - b^2\tan^2x = c^2$ then the value of $\sec^2x+\tan^2x =$ A. $(b^2-a^2+2c^2) / \quad (b^2+a^2)$ B. $(b^2+a^2-2c^2) / \quad (b^2-a^2)$ C. $(b^2-a^2-2c^2) / \quad (b^2+a^2)$ D. $(b^2-a^2) /(b^2+a^2+2c^2)$
74	A	What is the distance in cm between two parallel chords of length 8 units in a circle of diameter 10 cm? A. 6 B. 7 C. 8 D. 5.5

75	A	ABCD is a rhombus. A straight line through C cuts AD produced at P and AB produced at Q. If DP = 1/2 AB, then the ratio of the lengths of BQ and AB is A. 2:1 B. 1:2 C. 1:1 D. 3:1
76	A	If the sides of a triangle are in the ratio 3 : 1(1/4) : 3(1/4), then the triangle is A. Right triangle B. Isosceles triangle C. Obtuse triangle D. Acute triangle
77	A	An equilateral triangle of side 6cm is inscribed in a circle. The radius of the circle is A. 2(sqrt3) cm B. 3(sqrt2) cm C. 4(sqrt3 cm D. sqrt3 cm
78	B	Three circles of diameter 10 cm each are bound together by a rubber band, The length of the rubber band (in cm) in stretched condition (a) 30 (b) 30+10π (c) 10π (d) 60+20π

79	B	A river 3m deep and 40 m wide is flowing at the rate of 2km per hour. How much water will fall into the sea in a minute? A. 400000 m³ B. 4000000 m³ C. 40000 m³ D. 4000 m³
80	C	if the radius of the base and height of a right circular cylinder is increased 10% each then the volume of the cylinder is increased by: A. 3.31 % B. 14.5 % C. 33.1 % D. 19.5 %
81	D	The amount of concrete to required to build a concrete cylindrical pillar whose base has a perimeter 8.8 m and whose curved surface area is 17.6 sq.m is. A. 8.325 m^3 B. 9.725 m^3 C. 10.5 m^3 D. 12.32 m^3
82	B	Some bricks are arranged in an area measuring 20 m3 if the length breadth height of each brick is 25 cm, 12.5 cm and 8 cm respectively. Then the no: of bricks are A. 6000

		B. 8000 C. 4000 D. 10000
83	D	The length breadth and height of a room is 5m, 4m and 3m. Find the length of the largest bamboo that can be kept A. 5 m B. 60 m C. 7 m D. 5sqrt(2) m
84	D	A solid metallic spherical ball of radius 6cm is melted and recast into a cone with diameter of the basic as 12 cm. find the height of the come A. 6 cm B. 2 cm C. 4 cm D. 3 cm
85	B	If the ratio of diameter of two right circular cones of equal height be 3:4 the ratio of their volume will be A. 3:4 B. 9:16 C. 16:9 D. 27:64
86	B	The mean marks of 20 students are 15. On checking again it was found that two of the no: were marked wronged as 3 and 6. If the wronged marks obtained are replaced by correct values then the correct

		mean is A. 15 B. 15.15 C. 15.35 D. 16
87	C	If the difference between simple interest and compound interest on a certain money for 2 years at 8% pa is Rs 768/- then the sum invested is A Rs 100000 B Rs 110000 C Rs 120000 D Rs 170000
88	C	On what sum of money will the difference between the compound interest and simple interest for 2 years at 5% per annum be equal to Rs 63/-: A. Rs 24600 B. Rs 24800 C. Rs 25200 D. Rs 25500
89		A sells an article to B making a profit of 1/5 th his outlay. B sells it to C, gaining 20%. If C sells it for Rs 600 and incurs a loss of 1/6 th his outlay, the cost price of A is: (a) Rs 600 (b) Rs 500 (c) Rs 720 (d) Rs 800

90	D	Ramesh bought 10 cycles for Rs 500 each. He spent Rs 2000 on the repair of all cycles. He sold five of them for Rs 750 each and the remaining for Rs 550 each. Then the total gain or loss % is (a) Gain of 8 1/3 % (b) Loss of 8 1/3 % (c) Gain of 7 2/3 % (d) Loss of 7 1/7%
91	A	A can finish a work in 18 days and B can do same work in half the time taken by A. then working together, what part of same work they can finish in a day (a) 1\6 (b) 2\5 (c) 1\9 (d) 2\7
92	C	The rate of working of A and B are in the ratio of 2:3. The number of days taken by them are in the ratio A. 2:3 B. 4:9 C. 3:2 D. 9:4
93	B	The ratio of the number of boys and girls in a school is 3:2 Out of these 20% the boys and 25% of girls are scholarship holders. % of students who are not scholarship holders? A. 56

		B. 78 C. 70 D. 80
94	C	A train passes two bridges of length 800 m and 400 m in 100 seconds and 60 seconds respectively. The length of the train is A. 80 B. 90 C. 200 D. 150
95	C	In an examination, 52% student failed in Hindi and 42% in English. If 17% failed in both the subjects, what % of students passed in both the subjects? A. 38% B. 33% C. 23% D. 18%
96		The batting average for 40 innings of a cricket player is 50 runs. His highest score exceeds his lowest score by 172 runs. If these two innings are excluded, the average of the remaining 38 innings is 48 runs. Find out the highest score of the player. A. 150 B. 174 C. 180 D. 166

97	B	a discount of series 15 20 and 30 is equal to a single discount of A. 50% B. 47.6% C. 52.8% D. 52.4%
98	A	A dishonest dealer defrauds by false balance to d extent of x% in buying as well as in selling his goods. Find the gain % of his outlay A. 2x% B. $(10/x + x^2)$% C. $(2x + x^2/100)$% D. $(x + x^2/100)$%
99	C	A and B started a business in partnership investing in ratio 7:9. After 3 months A withdrew 2/3 of his investment and after 4 months from the beginning B withdrew 33(1/2)% of its investment If the total earned profit is Rs 10201/- at the end of the 9 months Find share of each profit A. Rs 3535 and 6666 B. Rs 3055 and 5555 C. Rs 4503 and 1345 D. Rs 3545 and 3333
100	A	What is the value of $\log_2(\log_3 81)$ A. 2 B. 3 C. 4 D. 9