TEST SERIES DISCUSSION

Q1. A metallic spherical shell has internal and external diameters as 40cm and 30cm respectively. It is melted and recast into a number of solid cones radius 5cm and height 4cm each. The number of cones obtained is.

200

190

165

185

$$V_S = \frac{4}{3}\pi(R^3 - r^3)$$

$$V_C = \frac{1}{3}\pi r^2 h$$

$$\frac{V_S}{V_C} =$$

TEST SERIES DISCUSSION

Q2. If 54 persons can complete 3/8th part of the work in 36days, then how many more persons are required to complete 2/3rd part of the same task in 48days.

20

18

72

21

(m1 * D1) / w1 = (m2 * d2) / w2

(54 * 36) / (3/8) = (X * 48) / (2/3)

X = 72

72 -54 = 18

18 more persons required

TEST SERIES DISCUSSION

Q3. Amita earns 18% Profit by selling an article. If she increases the price of the article by INR60.50, her gain percentage increases to 29%. If she sells it for INR 530.75, then gain/loss percent is

Gain 3.5%

Loss 1.5%

Gain 1.5%

Loss 3.5%

29-18 =11%

11% = 60.50

1% = 60.50/11 = 5.48

100% = 548.36

548.36-530 = 18.36

18.36/ 548.36 = X/ 100

x= 3.5

TEST SERIES DISCUSSION

Q4. The time taken by a boat to go a certain distance against the current is the same as to go the double distance along the current. The speed of the current is 3 km/h. How much time in hours) will the boat take to travel
57.6 km in still water?

6.4

7.2

7.5

5.8

$\frac{d}{b-3} = \frac{2d}{b+3}$ →

$b+3=2(b-3)$

$b = 9$

57.6/9 = 6.4

Distance against the current = d

er = b km/h

km/h

current = b−3 km/h

t = b+3 km/h

TEST SERIES DISCUSSION

Q5. A loan of INR 19125 is to be paid back In two equal half yearly instalments. If the rate of interest is 8% p.a and the interest is compounded half yearly , then how much is each installment(in INR)?

10155

10125

10140

10120

TEST SERIES DISCUSSION

Q6. A Certain sum amounts to INR 16590 in 4 ½ years at 8.5% p.a at S.I. The same sum amounts to INR X in 2 years at 15% p.a when the interest is compounded 8-monthly. The value of X is.?

15792

15927

15752

15972

TEST SERIES DISCUSSION

Q7. Two saree and three shirt costs INR 5400. With the same money, one can buy one saree and six shirts. Abhi buys 3 saree and 5 shirts. If he had INR 8500 with him, how much money(in rupees) is left with him after purchase?

100

90

150

200

TEST SERIES DISCUSSION

Q8.?

800000

925000

875000

920000

Q4. The following table gives the percentage distribution of the population of four states A, B, C and D based on the poverty line and on gender.

State	% of population below poverty line	Proportion of Male and Female	
		Below Poverty Line	Above Poverty Line
		M:F	M:F
A	40	3:4	4:5
B	35	5:7	3:5
C	28	1:2	3:4
D	40	4:7	4:3

f state A's female population of the below poverty line is 2,00,000, what is the total population of state A?

TEST SERIES DISCUSSION

Q9. In an examination, 80 % students passed in Mathematics, 72 % passed in Science and 13 % failed in both the subjects. If 312 students passed in both the subjects, find the total number of students who appeared in the examination.?

480

230

220

250

TEST SERIES DISCUSSION

Q10. Mr. Raju travelled a certain distance at a certain speed. Had he moved 4 kmph faster, he would have taken30 minutes less to cover the distance. If he had moved 2kmph slower, he would have taken 30 minutes more to cover the distance. What was the distance travelled by him?

8

4

12

24

TEST SERIES DISCUSSION

Q11. The capacities of three containers X. Y and Z are 1, 2 and 4 litres respectively. Initially X is empty, while Yand Z are full of water and milk respectively. X is filled from Y, Y is replenished from Z and X is emptied into Z. If this process is repeated once more, then what will be the ratio of milk in Y to water in Z?

1:1

4:5

3:5

4:3

Q12. If $\sqrt{1 + \frac{31}{225}} = 1 + \frac{x}{15}$, then the value of x is

2

16

15

1

Q13.

Expenditure/ Year	Salary	Transport	Bonus	Taxes	Advertisement
2015	250	97	4	80	4.1
2016	200	113	4.25	70	3.0
2017	270	95	4.5	85	8.1
2018	300	103	4.5	79	7.6
2019	325	92	5	75	9.2

13 The total amount incurred on advertisement by the company during the period 2015 to 2019 is what percent of the total amount of transport incurred during this period?

- ○ 3.75%
- ○ 4%
- ○ 6.4%
- ○ 3.5%

TEST SERIES DISCUSSION

Q14. A number is divided by 1001 (=7*11*13) and it was divided in succession by 7,11 and 13, to obtain the remainders 4,6 and 12 respectively. What would have been the remainder if the number was divided directly by 1001??

828

970

982

764

TEST SERIES DISCUSSION

Q15. At an election between two candidates A and B, all the eligible candidates had voted, but 4% of votes were not valid. A, the winner got support from 52% of the voters and defeated B by 600 votes. What was the total number of votes?

7500

8000

6250

6000

TEST SERIES DISCUSSION

The average rainfall (in mm) in a city during the months, March to October, of a year calculated over a period of ten years is presented in a tabular form below.

Months	Mar	Apr	May	June	July	Aug	Sept	Oct
Rainfall	44	56	154	312	333	350	288	147

What is the ratio of the average rainfall for the months having three-figure data to that of the same for the rest?

TEST SERIES DISCUSSION

Q17. A room measuring 6m 65cm long and 4m 55cm broad is to be paved with the least number of squared tiles. Then the least number of squared tiles required to cover the floor is?

247

210

257

187

TEST SERIES DISCUSSION

18 If $x = \frac{\sqrt{12+\sqrt{140}}}{\sqrt{12-\sqrt{140}}}$, what is the value of $(x + \frac{1}{x})^2 - (x - \frac{1}{x})^2$?

- 4
- 1
- 6
- 2

TEST SERIES DISCUSSION

Q19. There are four letters and four envelopes and exactly one letter is to be put in exactly one envelope with the correct address. If the letters are randomly inserted into the envelopes, then consider the following statements :

1. It is possible that exactly one letter goes into an incorrect envelope.

2. There are only six ways in which only two letters can go into the correct envelopes.

Which of the statements given above is/are correct ?

1 only

2 only

Both 1 and 2

Neither 1 or 2

TEST SERIES DISCUSSION

If x is the remainder when 3^{61284} is divided by 5 and y is the remainder when 4^{96} is divided by 6, then what is the value of (2x-y) ?

-4

-2

4

2