

Test Paper 1

**80Marks Correct Ans : 2Marks Each Incorrect Answer -1
Percentage**

1. A's salary is 50% more than B's. How much percent is B's salary less than A's?

- a. $33\frac{1}{4}\%$ b. $33\frac{1}{3}\%$ c. $33\frac{1}{2}\%$ d. 33%

Ans:

2. Ramesh's salary was reduced by 10% and then the reduced salary was increased by 10%. What was his ultimate loss?

- a. 0% b. 10% c. 1% d. 5%

Ans:

3. In a country 55% population is female. 80% of the male population is literate. How much of females are literate if total literacy is 58%?

- a. 45% b. 55% c. 40% d. 22%

Ans:

4. Two numbers are less than a third number by 30% and 37% respectively. How much percent is the second number less than the first?

- a. 7% b. 10% c. 4% d. 3%

Ans:

5. 40% of greater number is equal to 60% of the smaller. If their sum is 150, then the greater number is

- a. 70 b. 80 c. 90 d. 60

Ans:

Surds and Indices

1. How many zeroes are there in 200010?
a. 10 b. 30 c. 20 d. 15

Ans:

2. What is value of $(36)^{\frac{1}{2}}$?
a. 2 b. $\sqrt{36}$ c. 1 d. $3\sqrt{6}$

Ans:

Logarithms

1. If $\log_a y = x$ then antilogarithm of x should be
a. $y = \text{antilog } x$ b. $x = \text{antilog } y$ c. $y = \text{antilog } x + y$ d. $x = \text{antilog } y + x$

Ans:

2. Logarithms having base 'e' are called
a. pure logarithms b. common logarithms c. natural logarithms d. infinite logarithms

Ans:

3. Relation $y = \log_z x$ implies
a. $x^y = z$ b. $z^y = x$ c. $x_z = y$ d. $y^z = x$

4. $10^{-3} = 0.001$ can be written in form of logarithm as
a. $\log 1 = -3$ b. $\log 0.001 = 3$ c. $\log 3 = -0.001$ d. $\log 0.001 = -3$

Time and Work

1)Raj can build a house alone in 16 days but Suraj alone can build it in 12 days. Raj and Suraj work on alternate days. If Raj works on first day, the house will be built in how many days?

- a. 12.5 days b. $13\frac{3}{4}$ days c. $48/7$ days d. $24/7$ days

Ans:

2)A can complete a work in 12 days and B can complete in 8 days. A works for 8 hours every day while B works for 10 hours every day. If A and B together start working 8 hours per day, in how many days will they complete the work?

- a. 8 days b. $60/11$ days c. $39/12$ days d. $15/8$ days

Ans:

3)If Ram and Shyam together can build a house in 10 days; Ram and Arun can build it together in 12 days and Shyam and Arun can build it in 15 days. Shyam, Ram and Arun start working together. In how many days they build the house?

- a. 6 days b. 4 days c. 8 days d. 12 days

Ans:

4)P can do a job in 15 days. In how many days can P and Q together complete the job if Q is twice as fast as P?

- a. 3 days b. 5 days c. 2 days d. 6 days

Ans:

5)Mahesh asked 32 men to build his house in 20 days. 80% of the work got completed in just 12 days. So Mahesh removed some workers. Now how many persons does he need to complete the remaining work in decided time?

- a. 12 b. 20 c. 32 d. 16

Ans:

Time and Distance

1) A man goes to Mumbai from Pune at a speed of 4 km/hr and returns to Pune at speed of 6km/hr. What is his average speed of the entire journey?

- a. 4.8km/hr b. 5 km/hr c. 4.2 km/hr d. 5.6 km/hr

Ans:

2) Rohit has to reach Mumbai which is 500 km away in 10 hours. His starting speed for 3 hours was 60 km/hr. For the next 200 km his speed was 50km/hr. By what speed he must travel now so as to reach Mumbai in decided time of 10 hours?

- a. 40km/hr b. 50 km/hr c. 60 km/hr d. 20 km/hr

Ans:

3) P, Q and R are in a cycle race of 4500 meters. P cycles twice as fast as Q. R cycles 1/3rd as fast as Q. R completes the race in 45 minutes. Then where was Q from the finishing line when P finished the race?

- a. 300 m b. 1500 m c. 2250 m d. 3000 m

Ans:

4) A car travelling with 5/7th of its actual speed covers 42km in 1hr. 40mins. 48 secs. Find the actual speed of the car.

- a. $17\frac{6}{7}$ km/hr b. 35 km/hr c. 25 km/hr d. 30 km/hr

Ans:

5) Rohit covers one-fourth of the total distance at 20 km/hr, one-fourth at 10 km/h and rest of his journey at 80 km/h. Find Rohit's average speed for the whole distance?

- a. 22.85 km/hr b. 25.15 km/hr c. 50 km/hr d. 40 km/hr

Ans:

Permutation and Combination

1) There are 30 people in a group. If all shake hands with one another , how many handshakes are possible?

- a. 870 b. 435 c. 30! d. $29! + 1$

Ans:

2) In how many ways can we arrange the word 'FUZZTONE' so that all the vowels come together?

- a. 1440 b. 6 c. 2160 d. 4320

Ans:

3) In Cricket League, in first round every team plays a match with every other team. 9 teams participated in the Cricket league. How many matches were played in the first round?

- a. 36 b. 72 c. 9! d. $9! - 1$

Ans:

4) How many combinations are possible while selecting four letters from the word 'SMOKEJACK' with the condition that 'J' must appear in it?

- a. 81 b. $8!/2!$ c. $3!/2!$ d. 41

Ans:

5) In a room there are 2 green chairs, 3 yellow chairs and 4 blue chairs. In how many ways can Raj choose 3 chairs so that at least one yellow chair is included?

- a. 3 b. 30 c. 64 d. 84

Ans:

6) 17 students are present in a class. In how many ways, can they be made to stand in 2 circles of 8 and 9 students?

- a. ${}^{17}C_9 \times 9! \times 8!$ b. ${}^{17}C_9 \times 8! \times 7!$ c. $8! \times 7!$ d. ${}^{17}C_8 \times 8! \times 9!$

Ans:

7) On a railway line there are 20 stops. A ticket is needed to travel between any 2 stops. How many different tickets would the government need to prepare to cater to all possibilities?

- a. 760 b. 190 c. 380 d. 72

Ans:

8) In Daya's bag there are 3 books of History, 4 books of Science and 2 books of Maths. In how many ways can Daya arrange the books so that all the books of same subject are together?

- a. 9 b. 6 c. 8640 d. 1728

Ans:

9) A locker in bank has 3 digit lock. Mahesh forgot his password and was trying all possible combinations. He took 6 seconds for each try. The problem was that each digit can be from 0 to 9. How much time will be needed to by Mahesh to try all the combinations?

- a. 90 minutes b. 120 minutes c. 60 minutes d. 100 minutes

Ans:

10) Mayur travels from Mumbai to Jammu in 7 different ways. But he is allowed to return to Mumbai by any way except the one he used earlier. In how many ways can he complete his journey?

- a. 49 b. 42 c. 48 d. 6

Ans:

Ratio and Proportion

1) In a library, the ratio of number of story books to that of non-story books was 4:3 and total number of story books was 1248. When some more story books were bought, the ratio became 5:3. Find the number of story books bought.

- a. 312 b. 321 c. 936 d. 1560

Ans:

2) Rs. 8400 is divided among A, B, C and D in such a way that the shares of A and B, B and C, and C and D are in the ratios of 2:3, 4:5 and 6:7 respectively. The share of A is

- a. Rs. 1280 b. Rs. 8400 c. Rs. 8210 d. Rs. 1320

Ans:

3) The ratio of the present age of father to that of son is 7:2. After 10 years their ages will be in the ratio of 9:4. The present ages of the father is

- a. 35 years b. 40 years c. 30 years d. 25 years

Ans:

4) In a library, the ratio of number of story books to that of non-story books was 4:3 and total number of story books was 1248. When some more story books were bought, the ratio became 5:3. Find the number of story books bought.

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Ans:

5) Ajay and Raj together have Rs. 1050. On taking Rs. 150 from Ajay, Ajay will have same amount as what Raj had earlier. Find the ratio of amounts with Ajay and Raj initially.

- a. 3:4 b. 7:1 c. 1:3 d. 4:3

Ans:

Arithmetic Progression

1. The first and last term of an A.P. are 1 and 11. If the sum of its terms is 36, then the number of terms will be

- (a) 5 (b) 6 (c) 7 (d) 8

Ans:

2. If the sum of three consecutive terms of an increasing A.P. is 51 and the product of the first and third of these terms is 273, then the third term is

- (a) 13 (b) 9 (c) 21 (d) 17

Ans:

3. If 7th and 13th term of an A.P. are 34 and 64 respectively, then its 18th term is

- (a) 87 (b) 88 (c) 89 (d) 90

Ans:

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