

**HOPE QUANTITATIVE ALL TOPIC EXAM 01**

**Directions: What will come in place of (?) in following series following a certain pattern?**

1. 9, 5, 9, 25, 91, ?

- A. 414
- B. 459
- C. 331
- D. 445
- E. 360

2. 14, 22, 12, 26, ?, 34

- A. 18
- B. 11
- C. 21
- D. 15
- E. 06

3. 8, 6, 14, 64, 440, ?

- A. 3960
- B. 3155
- C. 3950
- D. 2045
- E. 2160

4. 12, 23, 45, 78, 122, ?

- A. 181
- B. 172
- C. 166
- D. 145
- E. 177

5. 18, 10, 6, 4, 3, ?

- A. 1
- B. 1.5
- C. 2
- D. 2.5
- E. 0.5

**In each of the following questions, a question is followed by two statements numbered I and II. Read both the statements and answer accordingly.**

6. What is the age of B?

**Statement I:** The ratio of present age of A and B is 3:5 and 4 years before A was 8 years younger than B

**Statement II:** 3 years ago the ratio of ages of A and B was 4:7 and 3 years hence the ratio will become 2:3

- A. Only I
- B. Only II
- C. Either I or II

D. Neither I nor II

E. Both I and II

7. What is the age of teacher?

**Statement I:** In a class of 20 students the average age of students is 21 and it increases to x if the age of teacher is included.

**Statement II:** In a class of 10 students the average age of students and teacher is 22 years

- A. Only I
- B. Only II
- C. Either I or II
- D. Neither I nor II
- E. Both I and II

8. What of the distance travelled?

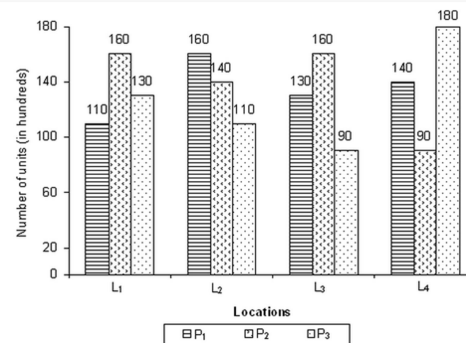
**Statement I:** If a person covers a distance in 12 hour, covering the first half at 20 kmph and the second half at 30 kmph

**Statement II:** If a person covers a distance at 30 kmph. If her decreases his speed to 25 kmph he takes two more hour to reach the destination

- A. Only I
- B. Only II
- C. Either I or II
- D. Neither I nor II
- E. Both I and II

**Study the following bar graph carefully and answer the questions that follow.**

Number of units of three different products P1, P2 and P3, produced (units in hundreds) at four different locations (L1, L2, L3 and L4) of a factory the graph.



**9. What is the total number of units of P2 produced (in hundreds) in the four locations together?**

- A. 540
- B. 550
- C. 510

- D. 530
- E. None of these

**10. What is the average number of units (in hundreds) of P1 produced per location?**

- A. 135
- B. 155
- C. 165
- D. 175
- E. None of these

**11. In which location is the maximum number of units produced?**

- A. L2
- B. L1
- C. L4 and L2
- D. L3 and L1
- E. None of these

**12. By what approximate percent is the number of units of P1 produced more than the number of units of P3 produced in the four locations together?**

- A. 10.9%
- B. 12.4%
- C. 16.5%
- D. 18.7%
- E. 5.9%

**13. If the production cost of each of product P2 is Rs.430, then what is the total production cost of P2?**

- A. Rs.2,26,200
- B. Rs.2,36,500
- C. Rs.2,46,800
- D. Rs.2,56,400
- E. None of these

14. A firm of readymade garments makes both men's and women's shirts. Its average profit is 6% of the sales. Its profit in men's shirts average 8% of the sales and women's shirts comprise 60% of the output. What is the average profit per sales rupee in women's shirts.

- A. 0.1243
- B. 0.5416
- C. 0.0466
- D. 0.5247

- E. 0.2451

15. Of the two varieties of rice available, variety A is bought at Rs.32 per kg and variety B at Rs.80 per kg. Two varieties of rice are mixed together in the respective ratio of 8:5 and the mixture is sold at Rs.72 per kg. What per cent of profit approximately the seller receives ?

- A. 50%
- B. 40%
- C. 30%
- D. 55%
- E. 43%

**16. The Average of marks obtained by 120 candidates in a certain examination is 35. If the average marks of passed candidates is 39 and that of failed candidates is 15, what is the number of candidates who passed the examination?**

- A.90
- B.100
- C.108
- D.115
- E. None of these

17. The mean of 1,8,27,64,125.....1728

- A.650
- B.560
- C.600
- D.605
- E. None of these

18. Find the cost of carpentering a room 12 m long and 7 m broad with a carpet 10m long and 6m wide and at the rate of Rs.150 per meter.

- A. Rs.320
- B. Rs.210
- C. Rs.200
- D. Rs.235
- E. None of these

19. There are 6 men and 7 women. In how many ways a committee of 4 members can be made such that a particular woman is always included.

- A. 180
- B. 120
- C. 240
- D. 220
- E. 260

20. A vessel which contains a mixture of acid and water in ratio 13:4. 25.5 litres of mixture is taken out from the vessel and 2.5 litres of pure water and 5 litres of acid is added to the mixture. If resultant mixture contains 25% water, what was the initial quantity of mixture in the vessel before the replacement in litres?

- A. 58 litre
- B. 68 litre
- C. 78 litre
- D. 48 litre
- E. None of the Above

**21. A and B alone can do a piece of work in 8 and 18 days respectively. In how many days the work will be completed if they both work on alternate days starting with B?**

- A.  $6\frac{5}{9}$  days
- B. 5 days
- C.  $10\frac{7}{9}$  days
- D.  $10\frac{9}{7}$  days
- E.  $6\frac{2}{9}$  days

**22. A, B and C can all together do piece of work in 10 days, in which B takes three times as long as A and C together do the work and C takes twice as long as A and B together take to do the work. In how many days B can alone do the work?**

- A. 35 days
- B. 33 days
- C. 43 days
- D. 40 days
- E. 45 days

**23. At present Saran is four times Mahesh's age. After 8 years Saran will be 3 times Mahesh's age. How many times will Saran's age be in another 8 years times with respect to Mahesh's age?**

- A. 2
- B. 2.5
- C. 3
- D. 4.5
- E. None of these

**24. At present Kavitha is thrice Sita's age. Eight years hence the respective ratio between Kavitha and Sita's age will be 22:11, What is Kavitha's present age?**

- A. 16yrs

- B. 8yrs
- C. 18yrs
- D. 24yrs
- E. None of these

**You have to solve equation I and II ,Give answer**

**25. I.  $2X^2 + 11X + 12 = 0$**

**II.  $2Y^2 + 19Y + 45 = 0$**

- A. If  $X > Y$**
- B. If  $X < Y$**
- C. If  $X \geq Y$**
- D. If  $X \leq Y$**
- E. If  $X = Y$  or cannot be established**

**26. I.  $X^{2/3} = 49$**

**II.  $Y = (-4)^4$**

- A. If  $X > Y$**
- B. If  $X < Y$**
- C. If  $X \geq Y$**
- D. If  $X \leq Y$**
- E. If  $X = Y$  or cannot be established**

27. Mr. Ravi completes a certain journey by a car. If he covered 40% of the distance at the speed of 20kmph, 50% of the distance at 25 kmph and the remaining of the distance at 10 kmph, then what will be the speed?

- A. 15 kmph
- B. 20 kmph
- C. 18 kmph
- D. 14 kmph
- E. None of these

28. Ajay walked at 10 kmph for certain part of the journey and then he took an auto for the remaining part of the journey travelling at 30 kmph. If he took 10 hours for the entire journey, what part of journey did he traveled by auto if the average speed of the entire journey be 18 kmph?

- A. 132 km
- B. 145 km
- C. 128 km
- D. 120 km
- E. None of these

29. Two pipes P and Q can fill a tank in 20m and 30m respectively. If both the pipes are opened simultaneously, after how much time should Q be closed so that the tank is full in 16 minutes?

- A. 12min

- B. 6min
- C. 10min
- D. 7min
- E. None of these

30. A tap can fill a tank in 12 minutes and another tap can empty the tank in 6 minutes. If the tank is already full and then both the taps are opened the tank will be

- A. Filled in 6 minutes
- B. Emptied in 6 minutes
- C. Filled in 6 minutes
- D. Emptied in 12 minutes
- E. None of these

**31. A Principal amount give Rs.12750 as SI for 7 years at the rate of 10% to get the same amount of interest of 10 years, what will be the rate of interest ?**

- A. 5%
- B. 7%
- C. 9%
- D. 4%
- E. None of these

**32. The CI on Rs.7000 for 3 years at 5% for first year, 7% for second year, 10% for the third year will be**

- A. Rs.1800
- B. Rs.1530
- C. Rs.1651
- D. Rs.2050
- E. None of these

**33. A, B and C divide Rs 4200 among themselves in the ratio 7 : 8 : 6. If Rs 200 is added to each of their shares, what is the new ratio in which they will receive the money?**

- A. 9 : 8 : 7
- B. 8 : 9 : 7
- C. 8 : 9 : 8
- D. 9 : 10 : 8
- E. 7 : 9 : 8

**34. There are 2 containers of equal capacity. The ratio of milk to water in the first container is 4:5 and in the second container is 3:7. If they are mixed up then the ratio of milk to water in the mixture will be**

- A. 17:63

- B. 65:96
- C. 34:75
- D. 67:113
- E. None of these

**35. In a partnership, A invests  $1/2$  of the capital for  $1/3$  of the time, B invests  $1/4$  of the capital for  $1/3$  of the time and C invests for  $1/5$  for  $1/4$  of the time. Out of the profit of Rs. 17622 at the end of a year, find A's share in the profit.**

- A. Rs.9790
- B. Rs.8760
- C. Rs.1080
- D. Rs.7650
- E. None of these

**36. A, B and C enter into a partnership in the ratio  $5/2:4/3:7/5$ . After 4 months, A increases his share 23%. If the total profit at the end of one year be Rs.31,800, then B's share in the profit is:**

- A. Rs.7548.49
- B. Rs.7548.96
- C. Rs.7548.66
- D. Rs. 7548.85
- E. None of these

**37. If the price of wheat is reduced by 2%. How many kilograms of wheat a person can buy with the same money which was earlier sufficient to buy 49 kg of wheat?**

- A. 58 kg
- B. 60 kg
- C. 52 kg
- D. 55 kg

**38. Mr. Ramesh gives 10% of some amount to his wife and 10% of the remaining to hospital expenses and again 10% of the remaining amount to charity. Then he has only Rs.7290 with him. What is the initial sum of money with that person?**

- A. Rs.8000
- B. Rs.9000
- C. Rs.10000
- D. Rs.20000
- E. Rs.17200

**39. A Boat takes total 10 hours for traveling downstream from point A to point B and coming back point C which is somewhere between A and B.**

**The speed of the Boat in Still water is 9 Km/hr and rate of Stream is 3 Km/hr, then what is the distance between A and B if the ratio of distance between A to C and distance between B to C is 2:1?**

- A. 54 Km
- B. 66 Km
- C. 72 Km
- D. 84 Km
- E. Cannot be determined

**40. From a pack of 52 cards, 2 cards are drawn at random. What is the probability that either both are red or both are kings?**

- A.  $55/221$
- B.  $52/225$
- C.  $44/221$
- D.  $48/221$
- E. None of these