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Memory Based Paper of IBPS PO Prelims 2019

Quantitative Aptitude

Memory Based Quantitative Aptitude Paper for IBPS PO Prelims 2019

Direction (1-5): In the following question two equations are given in variables X and Y. You have to solve these equations and determine relation between X and Y.

1.

(i) $4X^2 + 5X + 1 = 0$

(ii) $2Y^2 + 5Y + 3 = 0$

(a) X > Y

(b) Y > X

(c) X ≥ Y

(d) X ≤ Y

(e) X = Y or No relation can be established

2.

(i) $(X - 8)^2 = 0$

(ii) $Y^2 - 18Y + 81 = 0$

(a) X > Y

(b) Y > X

(c) X ≥ Y

(d) X ≤ Y

(e) X = Y or No relation can be established

3.

(i) $X^2 + 7X + 10 = 0$

(ii) $Y^2 - 2Y - 8 = 0$

(a) X > Y

(b) Y > X

(c) X ≥ Y

(d) X ≤ Y

(e) X = Y or No relation can be established

4.

(i) $X^2 - 5X - 84 = 0$

(ii) $Y^2 - 4Y - 60 = 0$

(a) X > Y

(b) Y > X

(c) X ≥ Y

(d) X ≤ Y

(e) X = Y or No relation can be established

5.

(i) $X^2 = 81$

(ii) $(Y + 9)^2 = 0$

(a) X > Y

(b) Y > X

(c) X ≥ Y

(d) X ≤ Y

(e) X = Y or No relation can be established

6. In a milk and water solution, the ratio of milk and water is 3 : 1. If 20 litres of mixture is taken out and 9 litres milk is added to the mixture then the percentage water in the mixture becomes $14\frac{2}{7}$%. What is the total volume of the initial mixture?

(a) 32 litres

(b) 48 litres

(c) 36 litres

(d) 24 litres

(e) 30 litres

7. Two persons A and B start a business with investments of Rs. 6000 and Rs. 9000 respectively and they invest for the durations in the ratio 5:3. If the total profit is Rs. 4370, then what is the share of A in the profit?

(a) Rs. 3400

(b) Rs. 2300

(c) Rs. 2700

(d) Rs. 1800

(e) Rs. 2070

8. Raj give 60% of his monthly salary to his wife and the remaining he invested in mutual fund. Out of the money his wife got, she spent 20% on groceries, 30% on rent and remaining amount of Rs. 18,000 she spent on buying gold. What is Raj's monthly salary?

(a) Rs. 50,000
(b) Rs. 76,000
(c) Rs. 40,000
(d) Rs. 60,000
(e) Rs. 80,000

(a) 14
(b) 25
(c) 30
(d) 35
(e) 42

Direction (9-10): What will come in place of the question mark (?) in the following number series?

9. 12, 129, 233, 324, ?, 467

(a) 378
(b) 418
(c) 386
(d) 426
(e) 402

10. 0.75, ?, 3, 6, 12, 24

(a) 2
(b) 2.6
(c) 1
(d) 1.5
(e) 3

Direction (11-15): What approximate value should come in place of the question mark(?) in the following questions?

11. $3.07 \times 14.96 + (15.02)^2 - (11.03)^2 = ?$

(a) 124
(b) 132
(c) 149
(d) 156
(e) 189

12. $111.01 - 211.09 + (12.01)^2 = x - (4.09)^2$

(a) 48
(b) 55
(c) 70
(d) 60
(e) 85

13. $14.03 + (28.02)^2 \div 6.98 + (3.96)^2 = ?$

(a) 142
(b) 156
(c) 182
(d) 166
(e) 124

14. $(1 \div 7.01 + 1 \div 13.99 + 1 \div 27.99) \times 100.09 = ?$

15. 56.08% of $149.92 + \sqrt{28.02 \times 6.98} - 11\frac{1}{9}\%$ of $998.9 = ?$

(a) 17
(b) -13
(c) 8
(d) -16
(e) 22

Directions (16-20):- Read the given information carefully and answer the following questions.

There are four hostels i.e. A, B, C and D.

In hostel A: Number of boys are 120 and number of girls are 30% more than that of number of girls in hostel B.

In hostel B: Number of boys are double than that of number of girls.

In hostel C: Number of boys are 100 more than that of boys in hostel A and total boys and girls in C is 1000.

In hostel D: Number of boys is 182 more than the number of boys in hostel A. Average of number of girls of hostel A and that of hostel D is 223.Number of boys in hostel D is 98 less that of boys in hostel B.

16. Difference between number of boys and girls in hostel D is what percent of difference between boys and girls in hostel B?

(a) 53%
(b) 58%
(c) 63%
(d) 60%
(e) 57.5%

17. Find difference between total number of boys and girls together in hostel A and that in hostel D?

(a) 108
(b) 118
(c) 112
(d) 98
(e) 128

18. Find ratio of total number of boys and girls together in hostel B to that of in hostel C?

(a) 3: 5
(b) 2: 5
(c) 3: 4
(d) 4: 5
(e) 6: 5

19. If 20 boys from each hostel left their hostel then find the average of remaining number of boys in all the hostels?

(a) 239.5
(b) 235
(c) 250.5
(d) 240.5
(e) 245.5

20. Total number of boys in hostel A and that of girls in hostel C is what percent more than number of boys in hostel B?
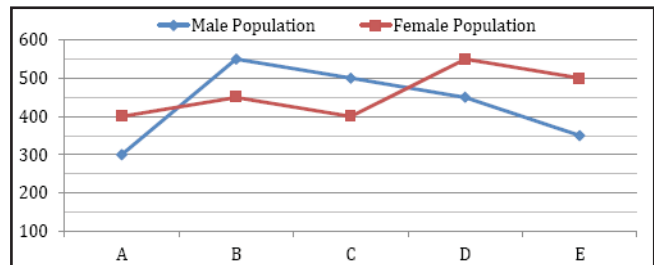
(a) 100%
(b) 125%
(c) 150%
(d) 137.5%
(e) 175%

21. A shopkeeper marked the price of an article by 40% above cost price and gave discount of Rs. 224. On the final amount, he charged 10% tax. In the whole transaction, he earned Rs. 158.6. Find cost price of the article.

(a) Rs 750
(b) Rs 760
(c) Rs 744
(d) Rs 757
(e) Rs 748

22. Two friends Pinki and Rinki entered into a partnership by investing an amount of Rs 6000 and Rs 9000 respectively and ratio of their period of investment is 2: 3. Find the profit share of Pinki if profit share of Rinki is Rs 45,000.

(a) Rs 24,000
(b) Rs 20,000
(c) Rs 18,000
(d) Rs 28,000
(e) Rs 25,000

Directions (23-27):- Given line graph shows the data of male & female population in 5 different cities. Read the data carefully and answer the questions.

(Total population = Male population + Female population)

23. By what percent total population of city A is more or less than that of city D?

(a) 45%
(b) 35%
(c) 70%
(d) 30%
(e) 60%

24. If in city A, the ratio of male graduates to female graduates is 3 : 4 and total graduates in the city are 70% of total population. Find population of females who are not graduate.

(a) 120
(b) 50
(c) 90
(d) 70
(e) 135

25. What is average of male population in all cities?

(a) 465
(b) 455
(c) 440
(d) 460
(e) 430

26. What percent of Female population in city C is male population in city E?

(a) 90.2%
(b) 87.5%
(c) 84.5%
(d) 85.5%
(e) 114.2%

27. In city B & C, ratio of postgraduates is 7:8. Total population who is postgraduate in city B is equal to total population of city A. find ratio of non-postgraduate population in city B to that of city C.

(a) 7 : 3
(b) 8 : 3
(c) 7 : 1
(d) 3 : 1
(e) 8 : 1

Directions (28-32):- Given table shows the data of population in 5 different parks. Study the data carefully and answer the questions.

Parks	Total Population	Female population
A	400	150
B	500	200
C	700	350
D	800	450
E	900	500

28. If 20% of total population did not visit on a particular day in park A of which male population was 60% then what percent of total population in park B is male population who visited in park A?

(a) 45%
(b) 40.4%
(c) 39.2%
(d) 48.6%
(e) *None of these*

29. What is average of male population in park B, C and D?

(a) 343.33
(b) 313.33
(c) 323.33
(d) 333.33
(e) 353.33

30. By what percent female population in park D is more or less than the male population in park E?

(a) 15%
(b) 9.09%
(c) 11.11%
(d) 14.28%
(e) 12.5%

31. What is ratio of male population in park A & D together to female population in park B & E together?

(a) 6:7
(b) 1:1

(c) 7:6
(d) 5:6
(e) 5:7

32. If 30 females from each park are above 80 years age then find the average of no. of females who are below or equal to the age of 80 years from all the parks.

(a) 295
(b) 285
(c) 300
(d) 280
(e) 290

33. The ratio of ages of A and B 4 years ago was 5 : 3. The sum of present ages of A, B and C is 80 years. If present age of C is equal to sum of present ages of A and B. find the present age of A.

(a) 17 years
(b) 24 years
(c) 20 years
(d) 22 years
(e) 18 years

34. The ratio of speed of boat in still water to speed of stream is 8 : 1. It takes 4 hours by boat to cover 54 km in downstream & 42 km in upstream. Find the downstream speed of boat.

(a) 25 kmph
(b) 24 kmph
(c) 21 kmph
(d) 27 kmph
(e) 23 kmph

35. Manoj gave 60% of his salary to his wife and invested rest amount in mutual funds. His wife spends 30% amount on grocery and 20% on rent. From remaining amount, she purchased gold worth Rs. 18000. Find salary of Manoj.

(a) Rs 60000
(b) Rs 54000
(c) Rs 64000
(d) Rs 58000
(e) Rs 66000