IBPS PO MAINS-2016(QUANTITATIVE APPTITUDE)
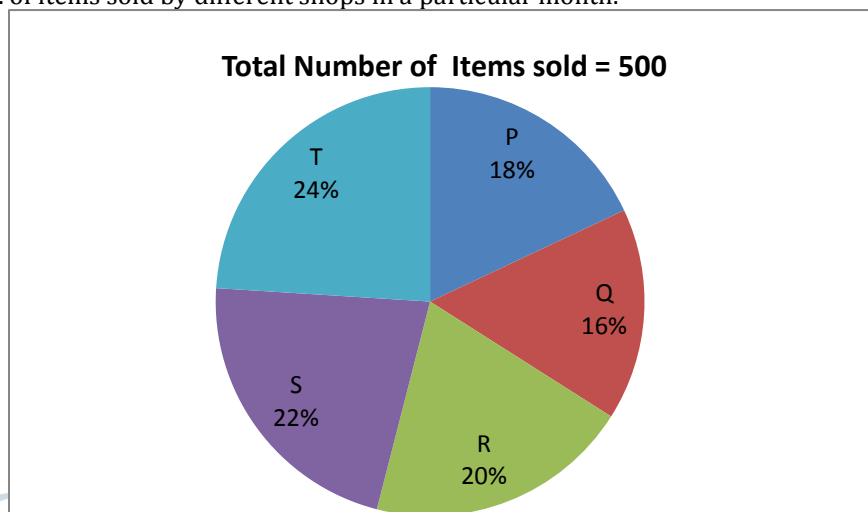## Memory Based

Directions (51-55): There are five shops P, Q, R, S and T and they sell two different items - item A and item B. Following pie-chart shows the total no. of items sold by different shops in a particular month.

Total Number of Items sold = 500

P 18%
Q 16%
R 20%
S 22%
T 24%

Q51. What is the central angle corresponding to the total number of items sold by shop S ?
   (a) 87.8°
   (b) 71.2°
   (c) 79.2°
   (d) 77.8°
   (e) None of these

Q52. Total number of items sold by shop P is equal to 36% of the total items purchased by shop P, then what is total number of unsold items of shop P ?
   (a) 320
   (b) 160
   (c) 140
   (d) 360
   (e) None of these

Q53. If the total number of items sold by shop S are 10% more and that of T are 20% more in the next month, than what is the total number of items sold by shop S and T together in the next month ?
   (a) 265
   (b) 355
   (c) 255
   (d) 365
   (e) None of these

Q54. If the total no. of item B sold by shop Q and that of R are equal and the ratio between the item A sold by shop Q to the item A sold by shop R is 2 : 3, then find the total number of item B sold by shop Q and R together ?
   (a) 80
   (b) 90
   (c) 70
   (d) 100
   (e) None of these

Q55. If the total number of item B sold by all of the shops together are 58% of the total items sold by all of the shops, then find the difference between the item A sold by all of the shops together and the item B sold by all of the shops together ?
   (a) 60
   (b) 70
   (c) 85

(d) 95

(e) None of these

Q56. The average age of Sheela, Ram and Mona is 38 years . 2 year ago, average age of Sheela and Ram is 39 year. 2 year hence, average age of Hema and Mona is 45. Find the present age of Hema ?

(a) 52 years

(b) 54 years

(c) 50 years

(d) 48 years

(e) None of these

Q57. Total distance between A and B is d kms. If the distance travelled along the stream is three time of the total distance and the distance travelled against the stream is two times of the total distance. If the time taken to cover the distance along the stream is 10% less then the time taken to cover the distance against the stream. If a person cover a distance of 21 km in 1 hr 24 min along the stream, then find the rate of current ?

(a) 2 km/hr

(b) 3 km/hr

(c) 1 km/hr

(d) 4 km/hr

(e) None of these

Q58. In a bag there are 3 magenta balls, 5 green balls and 7 blue balls . 2 balls are drawn one by one without replacement. If the first ball comes out to be of magentacolour, then 8 more magenta coloured balls are added to bag. Find the probability that both the balls drawn are of magenta colour.

(a)$\frac{1}{35}$

(b) $\frac{2}{11}$

(c)$\frac{1}{11}$
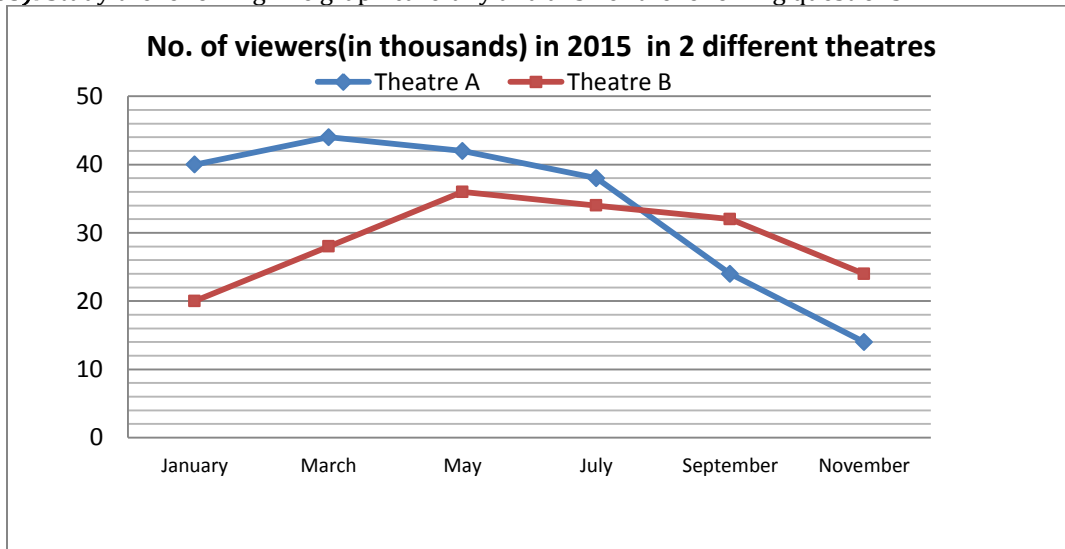
(d) $\frac{2}{23}$

(e) None of these

Q59. A started a business , Band C joined him in the 1st year ,they invested in the ratio of 5:4:7 respectively and the period for which they invested was in the ratio of 4:3:2 respectively. In the 2nd year , A doubled the investment, B and C continued with the same investment as they investor for the same no of month as they did in 1st year. The total profit in 2 years was 14000. What is B's share of profit.?

(a)Rs 2500   (b)Rs 3000

(c)Rs 3500   (d)Rs 4000

(e)none of these

Q60. A man invested rs X in simple interest at a rate of interest of 15 % for 5 yrs .then he invested X+300 at compound interest at 10% rate for 2 years.The total interest obtained in 2 years is Rs4383. Find the total amount (in Rs) invested by the man.

(a)9000   (b)8700

(c) 8500   (d)9300

(e)none of these

Directions (61-65): Study the following line graph carefully and answer the following questions.

No. of viewers(in thousands) in 2015 in 2 different theatres

Q61. What is the difference between total number of viewers of theatre A in may, September and November together and the no. of viewers of theatre B in the same months ?
    (a) 12000
    (b) 16000
    (c) 8000
    (d) 14000
    (e) None of these

Q62. If number of viewersof theatre A in January 2016 increases by 20% and that of theatre B by10% as compared to the corresponding no. of viewers of these theatres in January in 2015. Then find the difference between no. of viewers of theatre A and theatre B in January 2016.
    (a) 20000
    (b) 22000
    (c) 25000
    (d) 26000
    (e) None of these

Q63. The number of viewers of theatre B in October is equal to average of the viewers of same theatre in September and November, also the viewers of theatre A in October is $\frac{5}{7}$ of the viewers of theatre B in the October month. Find the number of viewers of theatre A in October.
    (a) 24000
    (b) 22000
    (c) 25000
    (d) 20000
    (e) None of these

Q64. The total number of viewers in march 2016 increased by 40% as compared to that in March 2015. If the viewers of theatre A in March 2016 are 25% more than that in 2015. Then find the difference between number of viewers of theatre B in March 2016 and in March 2015.
    (a) 15800
    (b) 19800
    (c) 17800
    (d) 18800
    (e) None of these

Q65. What is the ratio of viewers of theatre A in May and November together to that of theatre B in January and September together?
    (a) 14 : 11
    (b) 13 : 14
    (c) 11 : 14
    (d)14 : 13
    (e) None of these

Directions (66-70): find the wrong term in the following series-

Q66. 33   39   56   85   127   185   254
    (a) 39
    (b) 254
    (c) 185
    (d) 85
    (e) 56

Q67. 7   9   21   67   275   1371   8233
    (a) 275
    (b) 21
    (c) 67
    (d) 1371
    (e) 8233

Q68. 7   4   5   9   21   52.5   160.5
    (a) 4
    (b) 5
    (c) 9
    (d) 52.5
    (e) 21

Q69. 13   27   45   117   333   981   2925

(a) 13
(b) 27
(c) 45
(d) 117
(e) 333

Q70. 3   6   15   45   157   630   2835
(a)45
(b)15
(c)157
(d)2835
(e)630

Q71. Two jar A and B. Both contain 20 % milk. The quantity of jar A is 4 times than that of quantity of jar B. both jar mixtures are mixed and form new mixture C and 15 litres of water is added .The final ratio of water to milk is now 19:4. Find the initial quantity (in litres) of milk in jar B.

(a)5   (b)4
(c)10   (d)8
(e)none of these

Q72. The ratio of work done by 30 women to the work done by 25 men, in the same time is 5:6. If 9 women and 10 men can finish a work in $3\frac{1}{13}$ days. Then how many women can finish the work in 4.5 days?

(a)18   (b)16
(c)20   (d)25
(e)none of these

Q73. Out of a total 85 children playing badminton or table tennis or both, total number of girls in the group is 70% of the total number of boys in the group. The number of boys playing only badminton is 50% of the number of boys and the total number of boys playing badminton is 60% of the total number of boys. The number of children playing only table tennis is 40% of the total number of children and a total of 12 children pay badminton and table tennis both. What is the number of girls playing only badminton ?

(a) 16   (b) 14
(c) 17   (d) Date inadequate
(e) None of these

Q74. A laptop costs 15 times as compared to cost of a mouse. On each laptop there is a profit of 25%. While the total profit on selling a mouse and a laptop is 30%. If there is a profit of Rs 2100 on selling the mouse then find the cost price of a laptop?

(a)Rs30000   (b)Rs2000
(c)Rs32000   (d)Rs35000
(e)none of these

Q75. The marked price of a shirt and a trouser are in the ratio 1 : 2. The shopkeeper gives 40% discount on the shirt. If the total discount on the shirt and trousers is 30%, the discount offered on the trousers is

(a) 15%   (b) 20%
(c) 25%   (d) 30%
(e)none of these

Directions (76-80): In the following table, the investments and profit of three persons is given for different years in a joint business.

Year	Investments (in Rs.)			Profit (in Rs.)		
	A	B	C	A	B	C
2012	17000	21000	23000	85000	—	115000
2013	—	5000	—	—	12500	92500
2014	—	7000	8000	—	—	14000
2015	—	—	9000	50000	44000	24000
2016	11000	20000	—	—	—	—

Note:
1. Apart from year 2015, they invested the amounts for same period.
2. Some values are missing. You have to calculate these value per given data.

Q76. If the total profit in 2014 is 49000, then find the ratio of the investment of B in 2013 to the investment of A in 2014.

(a) 5 : 13
(b) 10 : 27
(c) 15 : 11

(d) 20 : 33

(e) None of these

Q77. In year 2015 total investment of A and B is 58000, A and B invested their amount for 6 months and 4 months respectively then find the number of months that C invested his amount ?

    (a) 4 months

    (b) 6 months

    (c) 8 months

    (d) Can't be determined

    (e) None of these

Q78. The ratio of Total profit earned by B in year 2012 the profit earned by him in the year 2016 ?

    (a) 3 : 11

    (b) 13 : 29

    (c) 33 : 59
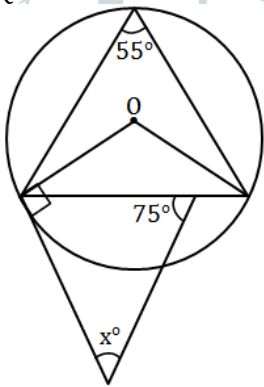
    (d) Can't be determined

    (e) None of these

Q79. Total investment made by A,B and C in 2013 was Rs75000. Profit earned by A in 2013 is approximate what % more than the investment made by C in 2013 ?

    (a) 131%

    (b) 115%

    (c) 120%

    (d) 123%

    (e) 149%

Q80. Total profit earned by all in 2016 is 445500 Rs. and the ratio of investment made by A and B together and investment made by B and C together is 31 : 52. Then find the difference between the profit made by A and C in 2016 ?

    (a) 153000

    (b) 148500

    (c) 166000

    (d) 170000

    (e) None of these

Q81.

Quantity I: x°

Quantity II: 55°

    (a) Quantity I > Quantity II

    (b) Quantity I < Quantity II

    (c) Quantity I ≥ Quantity II

    (d) Quantity I = Quantity II

    (e) No relation

Q82. $(x^a)^c = x^c$

$$\frac{x^{2b}}{x^a} = (x^{5a}) \times (x^d) \times (x^b)$$

Quantity I = b

Quantity II = d

    (a) Quantity I > Quantity II

    (b) Quantity I < Quantity II

    (c) Quantity I ≥ Quantity II

    (d) Quantity I = Quantity II

    (e) No relation

Q83. a> 0 < b

For all the integer value of a and b

$x = \dfrac{(a^2+ab)-(ab^2-b)}{2a^2+b^2-ab}$

Quantity I: x

Quantity II: 1.5

(a) Quantity I > Quantity II

(b) Quantity I < Quantity II

(c) Quantity I ≥ Quantity II

(d) Quantity I = Quantity II

(e) No relation

Q84. A box contains 4 Red balls, 6 white balls, 2 orange balls and 8 black balls.

Quantity I: Two balls are drawn at random probability that both balls are either red or white.

Quantity II: Three balls are drawn. The probability that all are different.

(a) Quantity I > Quantity II

(b) Quantity I < Quantity II

(c) Quantity I ≥ Quantity II

(d) Quantity I = Quantity II

(e) No relation

Q85. The cost price of 2 items A and B is same. The shopkeeper decided to mark the price 40% more than the CP of each item. A discount of 25% was given an item A and discount of 20% was given on item B. total profit earn on both item was Rs.34

Quantity I: CP of the items

Quantity II: CP of any item which was sold at 12.5% profit and profit earned on it was sold for Rs. 50

(a) Quantity I > Quantity II

(b) Quantity I < Quantity II

(c) Quantity I ≥ Quantity II

(d) Quantity I = Quantity II

(e) No relation

Directions (86-90): What should come in place of question mark (?) in the following given questions?(Note: You need not to calculate the exact value.)

Q86. $35.99\sqrt{?} + 32.0032\sqrt{?} = \dfrac{68}{10.998} \times (?)$

(a) 81

(b) 72

(c) 169

(d) 121

(e) 144

Q87. $(3.02)^2 + (9.08)^2 + (8.03)^2 + (4.04)^2 = ?$

(a) 170

(b) 230

(c) 150

(d) 210

(e) 160

Q88. $\sqrt{360.98} \times 18.99 + 1082.98 \div 57.07 = ?$

(a) 372

(b) 380

(c) 386

(d) 400

(e) 420

Q89. $94.95 \times 13.03 + \sqrt{35.98} \times 14.99 = 53 \times \sqrt{?}$

(a) 25

(b) 144

(c) 225

(d) 625

(e) 900

Q90. (333% of 856)÷49.95=?

(a) 43

(b)41
(c) 47
(d)39
(e) 57

Directions(Q91-95): In which of the following questions you have to find out that which of the following statement/statements are redundant for determining the answer of given question or can be dispensed with.

Q91. A trader sells a homogeneous mixture of A and B at the rate of Rs 32 per kg. What is the profit earned by the trader?

(I) He bought B at the rate of Rs 29 per kg

(II)He bought per kg of A at Rs 8 higher than the rate of B per kg.

(III)He bought A at the rate of Rs 34 per kg

(a)Only I and II

(b) Only I and III

(c) I, II and III together are not sufficient

(d) Either (a) or (b)

(e) Any two of these

Q92. 12 men and 8 women can complete a piece of work in 10 days. How many days will it take for 15 men and 4 women to complete the same work?

(I) 15 men can complete the work in 12 days

(II) 15 women can complete the work in 16 days

(III) The amount of work done by a woman is three-fourth of the work done by a man in one day.

(a) Only I and II or III

(b) Only II or III

(c) Only III

(d) Any two of the three

(e)Only II

Q93. What will be the sum of the ages of father and the son after five years?

I. Father's present age is twice son's present age

II. After ten years the ratio of father's age to the son's age will become 12 : 7

III. The difference between the father's age and son's age was equal to the son's present age

(a) Only I or II

(b) Only II or III

(c) Only I or III

(d) Only III

(e)Any two of the three

Q94. What is the amount saved by Sahil per month from his salary?

(I) Sahil spends 25% of his salary on food, 35% on medicine and education.

(II) Sahil spends Rs 4000 per month on food and 35% on medicine and education and saves the remaining amount.

(III) Sahil spends Rs 2500 per month on medicine and education and saves the remaining amount.

(a) Only II

(b) Only III

(c) Both II and III

(d) either II or III

(e) None

Q95. An article is sold at 15% discount. Find the percentage gain.

(I) If the article had been sold for Rs 150 less, there would have been no profit no loss

(II) Had the article been sold for Rs 50 more, the gain would have been 15%

(III) Cost price of the article is Rs 1000

(a) Only I or III

(b) Any one of them

(c) either I or II

(d) Any two of them

(e) None

Directions (96-100):Study the following information carefully to answer these question.

An institute having 450 employees has sent all its employees for training in one or more areas out of HRM, computer skills and financial skills. The employees are classified into two categories—officers and clerks, who are in the ratio of 4 : 5. 10% of the officers take training only in computer skills, 16% of the clerks take training only in HRM which is equal to the number of

officers taking training only in financial skills and is equal to the 50% of the number of officers taking training only in HRM and financial skills both. 6% of the total employees take training in all of which two-thirds are officers. 10% of the total employees take training only in HRM and computer skills, which is five times the number of clerks taking training only in computer skills and financial skills. 10% of clerks take training only in HRM and computer skills. The number of officers taking training only in HRM is 25% of the number of clerks taking training only in HRM. 20% of the total number of employees take training only in computer skills. Number of clerks taking training in HRM and financial skills both is 20% of the total number of clerks.

Q96. Total how many officers take training in HRM?
    (a) 110   (b) 128   (c) 118
    (d) 98   (e) None of these

Q97. Total how many clerks take training in computer skills but not in HRM?
    (a) 113   (b) 104   (c) 88
    (d) 79   (e) None of these

Q98. Total how many employees take training in financial skills but not in HRM?
    (a) 106   (b) 135   (c) 127
    (d) 134   (e) None of these

Q99. Total how many clerks take training in financial skills?
    (a) 115   (b) 106   (c) 47
    (d) 97   (e) None of these

Q100. What per cent of the total number of officers take training in computer skills but not in financial skills?
    (a) 25%   (b) 40%   (c) 20%
    (d) 15%   (e) None of these

Note: Data interpretation (paragraph based) questions were very tough and very lengthy so very few students attempted these questions

The paragraph was based on company which have production (in Rs.) from different years