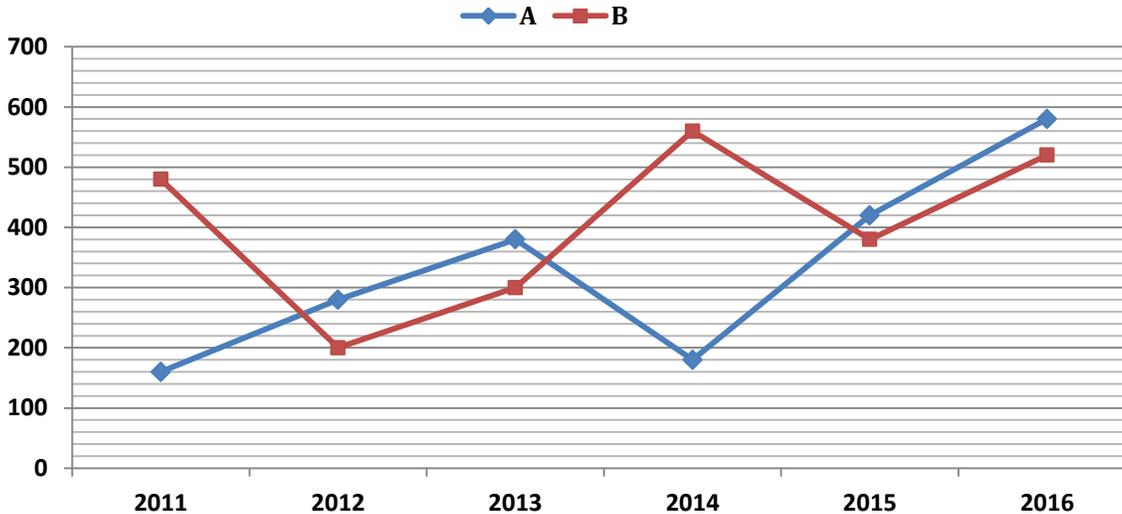


**IBPS clerk mains-2017 memory based paper (Quantitative aptitude)**

**Directions (1-5):-** Refer the graph and answer the given questions.

The following line graph shows the number of products sold by company A and B during six years.



Q1. What is the ratio of the total number of products sold by A and B together in 2012 to the total number of products sold in these two companies together in 2015 ?

- (a) 12 : 25
- (b) 3 : 5
- (c) 4 : 3
- (d) 5 : 3
- (e) None of these

Q2. Out of the total number of products sold by A and B together in 2011, only 20% are defected. What is the total number of defected products sold by A and B together in 2011 ?

- (a) 228
- (b) 128
- (c) 160
- (d) 148
- (e) 138

Q3. The number of products sold by A in 2014 is what per cent of the number of products sold by B in 2013?

- (a) 60%
- (b) 50%
- (c) 48%
- (d) 56%
- (e) None of these

Q4. The number of products sold by B increased by what percent from 2011 and 2014 ?

- (a)  $14\frac{2}{3}\%$
- (b)  $16\frac{2}{3}\%$
- (c)  $24\frac{2}{3}\%$
- (d)  $18\frac{2}{3}\%$
- (e)  $25\frac{1}{3}\%$

- Q5. What is the difference between the total number of products sold by B in 2011, 2012 and 2016 together and the total number of products sold by A in 2011, 2012 and 2013 together ?
- (a) 480  
 (b) 360  
 (c) 580  
 (d) 380  
 (e) 280

**Directions (6-10):** Study the table carefully and answer the following questions.

Village	% of people having Bank account out of total population in the village	Out of people having Bank Account	
		% male among the total people Bank Account	% of Inoperative Bank Account
A	45%	60%	40%
B	60%	30%	10%
C	60%	70%	30%
D	55%	50%	20%
E	35%	40%	60%

- Q6. If the population in village A and C are in ratio of 2 : 1 then, what is the ratio of inoperative Bank Account in Bank A and C.
- (a) 1 : 3  
 (b) 3 : 2  
 (c) 1 : 2  
 (d) 4 : 5  
 (e) None of these
- Q7. If out of the total inoperative Bank account in village B half account holder is female which is equal to 300, then find the total population of village B?
- (a) 10000  
 (b) 12000  
 (c) 14000  
 (d) 8000  
 (e) 9000
- Q8. If the population of village C and D are in ratio of 1 : 2, then number of people in village C having Bank account is by what approximately percent less or more than that of village D
- (a) 49.45%  
 (b) 42.45%  
 (c) 47.45%  
 (d) 43.45%  
 (e) 45.45%
- Q9. If the ratio of population in village A, B and C are in 1 : 2 : 3 then what percent of people in village A, B and C taking together have a bank account.
- (a) 51.5%  
 (b) 52.5%  
 (c) 59.5%  
 (d) 57.5%  
 (e) 55.5%
- Q10. Percentage of inoperative Bank account in Village E is by what percent more than the percentage of operative Bank accounts in the same village:
- (a) 45%  
 (b) 50%  
 (c) 60%  
 (d) 55%  
 (e) 75%

**Directions (11-15):** The following questions are accompanied by three statements (A) or (I), (B) or (II), and (C) or (III). You have to determine which statement(s) is/are sufficient/necessary to answer the questions.

Q11. What is the inradius of a right-angled triangle?

- A. The area of the triangle is known.
- B. Any two sides of the triangle are known.
- C. The perimeter of the triangle is known.
- (a) B alone is sufficient
- (b) A and C together are sufficient
- (c) Any one statement is sufficient
- (d) Either B alone or A and C together are sufficient
- (e) All together are necessary

Q12. What is rate of interest per annum?

- A. The amount becomes Rs 9331.20 in 2 years at compound interest.
- B. The difference between CI and SI at the same rate of interest in 2 yrs is Rs 51.20.
- C. The amount invested is Rs 8000.
- (a) Only A and B together
- (b) Only B and C together
- (c) B and either A or C only
- (d) C and either A or B only
- (e) Any two of them

Q13. Find the number of days in which Q can do a job if P can do the same job in 8 days.

- A. Q is 60% more efficient than P.
- B. P and Q together can do the job in  $3\frac{1}{13}$  days.
- C. P is  $37\frac{1}{2}$ % less efficient than Q.

- (a) Only A is sufficient
- (b) Only B is sufficient
- (c) Either A or B is sufficient
- (d) Any of them
- (e) A and C together are sufficient

Q14. What is the non-voting population of a certain country?

- A. Only males above 21 years of age can vote.
- B. Males above 21 years form 30% of the total population.
- C. The total population of the country is 30 million.
- (a) A only
- (b) B only
- (c) C only
- (d) A and C only
- (e) None of the above

Q15. A shopkeeper sold an article and got Rs 300 as profit. Find the profit percentage.

- A. Selling price of the article is Rs 1200.
- B. He gave 25% discount, which is Rs 400, on the labelled price
- C. Cost price of the article is Rs 900.
- (a) Any two of them
- (b) Any of them
- (c) B and either A or C
- (d) Either A or C only
- (e) A and C together

**Directions (16-20):** Equation number I and II are given. You have to solve both the questions and answer.

Q16. I.  $x^2 = 144$

II.  $y^2 - 24y + 144 = 0$

- (a)  $x \leq y$
- (b)  $x \geq y$
- (c) Relationship between x and y cannot be determined
- (d)  $x < y$

- (e)  $x > y$
- Q17. I.  $2x^2 - 9x + 10 = 0$   
 II.  $2y^2 - 13y + 20 = 0$
- (a)  $x \leq y$   
 (b)  $x \geq y$   
 (c) Relationship between  $x$  and  $y$  cannot be determined  
 (d)  $x < y$   
 (e)  $x > y$
- Q18. I.  $x^2 - 15x + 56 = 0$   
 II.  $3y^2 - 18y + 15 = 0$
- (a)  $x > y$   
 (b)  $x \geq y$   
 (c)  $x < y$   
 (d)  $x \leq y$   
 (e)  $x = y$  or the relationship cannot be established
- Q19. I.  $\sqrt{200x} + \sqrt{102} = 0$   
 II.  $\sqrt{160y} + \sqrt{200} = 0$
- (a)  $x > y$   
 (b)  $x \geq y$   
 (c)  $x < y$   
 (d)  $x \leq y$   
 (e)  $x = y$  or the relationship cannot be established
- Q20. I.  $(13)^2 - 14 + 28 = x$   
 II.  $(16)^2 - 8 \times 7 = y$
- (a)  $x > y$   
 (b)  $x \geq y$   
 (c)  $x < y$   
 (d)  $x \leq y$   
 (e)  $x = y$  or the relationship cannot be established
- Q21. One fill pipe A takes 3 minutes more to fill the cistern than two fill pipes A and B opened together to fill it. Second fill pipe B takes  $21\frac{1}{3}$  minutes more to fill cistern than two fill pipes A and B opened together to fill it. When will the cistern be full if both pipes are opened simultaneously.
- (a) 7 minutes  
 (b) 16 minutes  
 (c) 8 minutes  
 (d) 10 minutes  
 (e) 12 minutes
- Q22. In an examination P scored 25 marks less than Q. Q scored 45 more marks than R. T scored 75 marks which is 10 more than R. U's score is 80 less than maximum marks of the test. What approximate percentage of marks did U score in the examination if he gets 55 marks more than R?
- (a) 90  
 (b) 70  
 (c) 80  
 (d) 60  
 (e) 85
- Q23. The largest and the smallest angles of a triangle are in the ratio of 3:1 respectively. The second largest angle of the triangle is equal to  $56^\circ$ . What is the value of largest angle of the triangle?
- (a) 49  
 (b) 129  
 (c) 123  
 (d) 93  
 (e) None of these

- Q24. The difference between the sum of four consecutive odd numbers and three consecutive even numbers together is 20. Also, the largest even number is 5 more than the largest odd number. What is the sum of the smallest odd number and the smallest even number ?
- (a) 77  
(b) 71  
(c) 879  
(d) 83  
(e) Cannot be determined
- Q25. Anoop sells a book to Mayank at a profit of 20% and Mayank sells this book to Siddharth at a profit of 25%. Now Siddharth sells this book at a loss of 10% to Shishir. At what percentage loss should Shishir sell this book now so that his SP becomes equal to Anoop's CP?
- (a) 36.68%  
(b) 25.92%  
(c) 48.66%  
(d) 16.46%  
(e) Cannot be determined
- Q26. A shopkeeper marks up the price of his product by 40%. If he increases the discount from 5% to 10%, the profit would decrease by Rs 14. How much profit would he earn if he gives a discount of 20% on the marked price?
- (a) Rs. 56  
(b) Rs. 28  
(c) Rs. 32  
(d) Rs. 24  
(e) Rs. 38
- Q27. Monica deposited a total of Rs. 10500 with a bank in two different deposit schemes at 10% p.a., interest being compounded annually. As per the schemes, she gets the same amount after 2 years on the first deposit as she gets after 3 years on the second deposit. How much money did she deposit for 3 years?
- (a) Rs. 4500  
(b) Rs. 5000  
(c) Rs. 6500  
(d) Rs. 7200  
(e) None of these
- Q28. Sapna borrowed a certain sum of money from Kavita under the following repayment scheme based on simple interest. 8% p.a. for the initial 2 years, 9.5% p.a. for the next 4 years, 11% p.a. for the next 2 years, 12% p.a. after the first 8 years. Find the amount which a sum of Rs. 9000 taken for 12 years becomes at the end of 12 years?
- (a) Rs. 20160  
(b) Rs. 22350  
(c) Rs. 23470  
(d) Rs. 24567  
(e) None of these
- Q29. A, B and C enter into a partnership. A invests Rs. 8000 for the whole year, B puts in Rs. 12000 at the first and increasing to Rs. 16000 at the end of 4 months, whilst C puts in at first Rs. 16000 but withdraws Rs. 4000 at the end of 9 months. Find the profit of A at the end of year, if the total profit is Rs. 22600.
- (a) Rs. 4800  
(b) Rs. 4600  
(c) Rs. 4750  
(d) Rs. 4300  
(e) None of these
- Q30. Two places P and Q are 92 km apart. A train leaves P for Q and at the same time another train leaves Q for P. Both the trains meet 4 hrs after they start moving. If the train travelling from P to Q travels 7 km/hr faster than the other train, find the speed of the two trains.
- (a) 15 km/hr, 8 km/hr  
(b) 12 km/hr, 8 km/hr  
(c) 12 km/hr, 9 km/hr  
(d) 15 km/hr, 9 km/hr  
(e) None of these

- Q31. A and B working together, can do a piece of work in  $4\frac{1}{2}$  hours. B and C working together can do it in 3 hours. C and A working together can do it in  $2\frac{1}{4}$  hours. All of them begin the work at the same time. Find how much time they will take to finish the piece of work?
- (a) 3 hours  
(b) 2 hours  
(c) 2.5 hours  
(d) 1 hours  
(e) None of these
- Q32. Raman took a loan of Rs. 15000 from Laxman. He was agreed that for the first three years rate of interest charged would be at 8% Simple Interest per annum and at 10% Compound Interest (compounded, annually) from the fourth year onwards. Ram did not pay anything until the end of the fifth year. How much would he repay if he clears the entire amount, only at the end of fifth year ? (inRs.)
- (a) Rs. 22506  
(b) Rs. 22105  
(c) Rs. 22900  
(d) Rs. 22500  
(e) Rs. 22450
- Q33. Ram and Shyam are travelling from point A to B, which are 60 km apart. Travelling at a certain speed ram takes one hour more than Shyam to reach point B. If Ram doubles his speed he will take 30 minutes less than Shyam to reach point B. At what speed was Ram driving from point A to B ?
- (a) 15 kmph  
(b) 35 kmph  
(c) 30 kmph  
(d) 25 kmph  
(e) 20 kmph
- Q34. 6 litres are drawn from a cask full of wine and it is then filled with water. 6 litres of the mixture are drawn and the cask is again filled with water. The quantity of wine now left in the cask is to that of the water in it as 121 : 23. How much does the cask hold?
- (a) 54 litres  
(b) 62 litres  
(c) 70 litres  
(d) 72 litres  
(e) None of these
- Q35. A passenger train leaves Calcutta at 4 PM and travels at the rate of 30 kilometres an hour. The mail train leaves Calcutta at 9 PM and travels, on a parallel line of rails, at the rate of 45 km an hour, when will the second train overtake the first?
- (a) 10 hrs after the first train start  
(b) 12 hrs after the second train starts  
(c) 10 hrs after the second train starts  
(d) 12 hrs after the first train starts  
(e) None of these

**Directions (36-40):** What will be come in place of question mark (?) in the following number series ?

- Q36. 14    8    7    11.5    22    ?
- (a) 54  
(b) 64  
(c) 62  
(d) 58  
(e) 56
- Q37. 8    14    25    46    82    ?
- (a) 132  
(b) 130  
(c) 138  
(d) 168  
(e) 148

Q38. 13 14 30 93 ? 1885

- (a) 358
- (b) 336
- (c) 364
- (d) 376
- (e) 356

Q39. 17, 52, 158, 477, ?, 4310

- (a) 1433
- (b) 1432
- (c) 1435
- (d) 1434
- (e) None of these

Q40. 3, 22, ?, 673, 2696, 8093

- (a) 133
- (b) 155
- (c) 156
- (d) 134
- (e) None of these

