Practice Exercise

Level - I

1. If $(x-3)(2x+1)=0$, then the possible values of $2x+1$ are:
(a) 0 only (b) 0 and 3
(c) $-\frac{1}{2}$ and 3 (d) 0 and 7

2. Father is 5 years older than the mother and mother's age now is thrice the age of the daughter. The daughter is now 10 years old. What was father's age when the daughter was born?
(a) 20 years (b) 15 years
(c) 25 years (d) 30 years

3. A father told his son, "I was as old as you are at present, at the time of your birth," If the father is 38 years old now, what was the son's age five years back ?
(a) 19 years (b) 14 years
(c) 38 years (d) 33 years

4. When 24 is subtracted from a number, it reduces to its four-seventh. What is the sum of the digits of that number ?
(a) 1 (b) 9
(c) 11 (d) Data inadequate

5. If the sum of one-half and one-fifth of a number exceeds one-third of that number by $7\frac{1}{3}$, the number is
(a) 15 (b) 18
(c) 20 (d) 30

6. A driver's income consists of his salary and tips. During one week his tips were 5/4 of his salary. What fraction of his income came from tips ?
(a) $\frac{4}{9}$ (b) $\frac{5}{9}$
(c) $\frac{5}{8}$ (d) $\frac{5}{4}$

7. In a certain party, there was a bowl of rice for every two guests, a bowl of broth for every three of them and a bowl of meat for every four of them. If in all there were 65 bowls of food, then how many guests were there in the party ?
(a) 65 (b) 24
(c) 60 (d) 48

8. Two numbers are such that the square of one is 224 less than 8 times the square of the other. If the numbers be in the ratio of 3 : 4, the numbers are
(a) 36 (b) 48
(c) 56 (d) 64

9. Ram and Mohan are friends. Each has some money. If Ram gives ₹ 30 to Mohan, then Mohan will have twice the money left with Ram. But if Mohan gives ₹ 10 to Ram, then Ram will have thrice as much as is left with Mohan. How much money does each have ?
(a) ₹ 62, ₹ 34 (b) ₹ 6, ₹ 2
(c) ₹ 170, ₹ 124 (d) ₹ 43, ₹ 26

10. The sum of two numbers is 25 and their difference is 13. Find their product.
(a) 104 (b) 114
(c) 315 (d) 325

11. A person on tour has ₹ 360 for his daily expenses. He decides to extend his tour programme by 4 days which leads to cutting down daily expenses by ₹ 3 a day. The number of days of his tour programme is
(a) 15 (b) 20
(c) 18 (d) 16

12. The difference between the squares of two numbers is 256000 and the sum of the numbers is 1000. The numbers are:
(a) 600, 400 (b) 628, 372
(c) 640, 360 (d) None of these

13. The sum of three consecutive odd numbers is 20 more than the first of these numbers. What is the middle number ?
(a) 7 (b) 9
(c) 11 (d) Data inadequate

14. The autorickshaw fare consists of a fixed charge together with the charge for the distance covered. For a journey of 10 km, the charge paid is ₹ 85 and for a journey of 15 km, the charge paid is ₹ 120. The fare for a journey of 25 km will be
(a) ₹ 175 (b) ₹ 190
(c) ₹ 180 (d) ₹ 225

15. The denominator of a rational number is greater than its numerator by 4. If 4 is subtracted from the numerator and 2 is added to its denominator, the new number becomes $\frac{1}{6}$. Find the original number.
(a) $\frac{1}{6}$ (b) $\frac{6}{10}$
(c) $\frac{10}{6}$ (d) 6

16. The present ages of Vikas and Vishal are in the ratio 15 : 8. After ten years, their ages will be in the ratio 5 : 3. Find their present ages.
(a) 60 years, 32 years (b) 32 years, 60 years
(c) 15 years, 8 years (d) 8 years, 15 years

17. The sum of three consecutive multiples of 3 is 72. What is the largest number ?
(a) 21 (b) 24
(c) 27 (d) 36

18. Two-fifths of one-fourth of three-sevenths of a number is 15. What is half of that number?
(a) 96 (b) 196
(c) 94 (d) None of these

19. The sum of the ages of a father and his son is 4 times the age of the son. If the average age of the father and the son is 28 years, what is the son's age?
(a) 14 years (b) 16 years
(c) 12 years (d) Data inadequate

20. The product of two numbers is 192 and the sum of these two numbers is 28. What is the smaller of these two numbers?
(a) 16 (b) 14
(c) 12 (d) 18

21. The sum of three consecutive even numbers is 14 less than one-fourth of 176. What is the middle number?
(a) 8 (b) 10
(c) 6 (d) Data inadequate

22. The difference between the numerator and the denominator of a fraction is 5. If 5 is added to its denominator, the fraction is decreased by $1\frac{1}{4}$. Find the value of the fraction.
(a) $\frac{1}{6}$ (b) $2\frac{1}{4}$
(c) $3\frac{1}{4}$ (d) 6

23. The sum of three numbers is 300. If the ratio between first and second be 5 : 9 and that between second and third be 9 : 11, then second number is
(a) 12 (b) 60
(c) 108 (d) 132

24. When 20 is subtracted from a number, it reduces to seven-twelve of the number. What is the sum of the digit of the number?
(a) 40 (b) 44
(c) 46 (d) 48

25. If the number obtained on the interchanging the digits of two-digit number is 18 more than the original number and the sum of the digits is 8, then what is the original number?
(a) 50 (b) 51
(c) 52 (d) 53

26. There are two numbers such that sum of twice the first number and thrice the second number is 100 and the sum of thrice the first number and twice the second number is 120. Which is the larger number?
(a) 32 (b) 12
(c) 14 (d) 35

27. There are two number such that the sum of twice the first number and thrice the second number is 300 and the sum of thrice the first number and twice the second number is 265. What is the larger number?
(a) 24 (b) 39
(c) 85 (d) 74

28. If the digits of a two-digit number are interchanged, the number formed is greater than the orginal number by 45. If the difference between the digits is 5, then what is the orginal number?
(a) 16 (b) 27
(c) 38 (d) Cannot be determined

29. Krishna has some hens and some goats. If the total number animal heads are 81 and the total number of animnal legs are 234, how many goats does Krishna have?
(a) 45 (b) 24
(c) 36 (d) Cannot be determined

30. The average age of father and his son is 22 years. The ratio of their ages is 10 : 1 respectively. What is the age of the son?
(a) 24 (b) 4
(c) 40 (d) 14

31. The sum of third, fourth and fifth part of a number exceeds half of the number by 34. Find the number.
(a) 60 (b) 120
(c) 30 (d) None of these

32. A series of books was published at seven years interval. When the seventh book was issued, the sum of the publication year was 13,524. When was the first book published?
(a) 1932 (b) 1942
(c) 1911 (d) 1917

33. In a two-digit number the digit in the unit's place is three times the digit in the tenth's place. The sum of the digits is equal to 8. Then, what is the number ?
(a) 20 (b) 26
(c) 39 (d) 13

34. The number obtained by interchanging the two digits of a two-digit number is lesser than the original number by 54. If the sum of the two-digit number is 10, then what is the original number ?
(a) 28 (b) 39
(c) 82 (d) Cannot be determined

35. The age of the father 5 years ago was 5 times the age of his son. At present the father's age is 3 times that of his son. What is the present age of the father?
(a) 33 years (b) 30 years
(c) 45 years (d) None of these

36. If the numerator of a fraction is increased by 150% and denominator of the fraction is increased by 350%. The resultant fraction is 25/31. What is the original fraction?
(a) $\frac{11}{7}$ (b) $\frac{11}{15}$
(c) $\frac{15}{17}$ (d) $\frac{13}{15}$

37. The denominator of a fraction is 2 more than thrice its numerator. If the numerator as well as denominator is increased by one, the fraction becomes 1/3. What was the original fraction?

(a) $\frac{4}{13}$ (b) $\frac{3}{11}$

(c) $\frac{5}{13}$ (d) $\frac{5}{11}$

38. Smita was asked to multiply a certain number by 36. She multiplied it by 63 instead and got an answer of 3834 more than the correct one. What was the number to be multiplied?

(a) 152 (b) 126

(c) 142 (d) 148

39. Ravi has spent a quarter $\left(\frac{1}{4}\right)$ of his life as a boy, one-fifth $\left(\frac{1}{5}\right)$ as a youth, one-third $\left(\frac{1}{3}\right)$ as man and thirteen (13) years in old age. What is his present age?

(a) 70 years (b) 80 years

(c) 60 years (d) 65 years

40. In a group of equal number of cows and herdsmen the number of legs was 28 less than four times the number of heads. The number of herdsmen was

(a) 7 (b) 28

(c) 21 (d) 14

41. The ratio of the present ages of a mother and daughter is 7 : 1. Four years ago the ratio of their ages was 19 : 1. What will be the mother's age four years from now?

(a) 42 years (b) 38 years

(c) 46 years (d) 36 years

42. A number when subtracted by $\frac{1}{7}$ of itself gives the same value as the sum of all the angles of a triangle. What is the number?

(a) 224 (b) 210

(c) 140 (d) 350

43. Farah got married 8 years ago. Today her age is $1\frac{2}{7}$ times her age at the time of her marriage. At present her daughter's age is one-sixth of her age. What was her daughter's age 3 years ago?

(a) 6 years (b) 4 years

(c) 3 years (d) None of these

44. There are some parrots and some tigers in a forest. If the total number of animal heads in the forest is 858 and the total number of animal legs is 1,846, what is the number of parrots in the forest?

(a) 845 (b) 833

(c) 800 (d) 793

45. The ratio between a two-digit number and the sum of the digits of that number is 4 : 1. If the digit in the unit's place is 3 more than the digit in the ten's place, what is the number?

(a) 36 (b) 63

(c) 39 (d) 93

46. The ratio of two numbers is 4 : 7. If each of these numbers increases by 30, their ratio will become 5 : 8 . What is the average of these two numbers?

(a) 135 (b) 145

(c) 155 (d) 165

47. A number of two digits has 3 for its unit's digit, and the sum of digits is $\frac{1}{7}$ of the number itself, The number is

(a) 43 (b) 53

(c) 63 (d) 73

48. A number is doubled and 9 is added. If the resultant is trebled, it becomes 75. What is that number?

(a) 3.5 (b) 6

(c) 8 (d) None of these

49. The difference between a two-digit number and the number obtained by interchanging the position of its digits is 36. What is the difference between the two digits of that number?

(a) 3 (b) 4

(c) 9 (d) Cannot be determined

50. 54 is to be divided into two parts such that the sum of 10 times the first and 22 times the second is 780. The bigger part is:

(a) 24 (b) 34

(c) 30 (d) 32

51. The sum of five whole numbers is 146. If m is the largest of the five numbers, then which is the smallest value that *m* can have

(a) 30 (b) 35

(c) 28 (d) 27

52. A man has ₹ 480 in the denominations of one-rupee notes, five-rupee notes and ten-rupee notes. The number of notes of each denomination is equal. What is the total number of notes that he has ?

(a) 45 (b) 60

(c) 75 (d) 90

53. If the numerator of a fraction is increased by 200% and the denominator is increased by 200%, then resultant fraction is $2\frac{4}{5}$. What is the original fraction?

(a) 4/7 (b) 13/12

(c) 11/12 (d) None of these

54. Cost of 36 pens and 42 pencils is ₹ 460/-. What is the cost of 18 pens and 21 pencils ? [*SBI Clerk-June-2012*]

(a) ₹ 230/- (b) ₹ 203/-

(c) ₹ 302/- (d) ₹ 320/-

(e) None of these

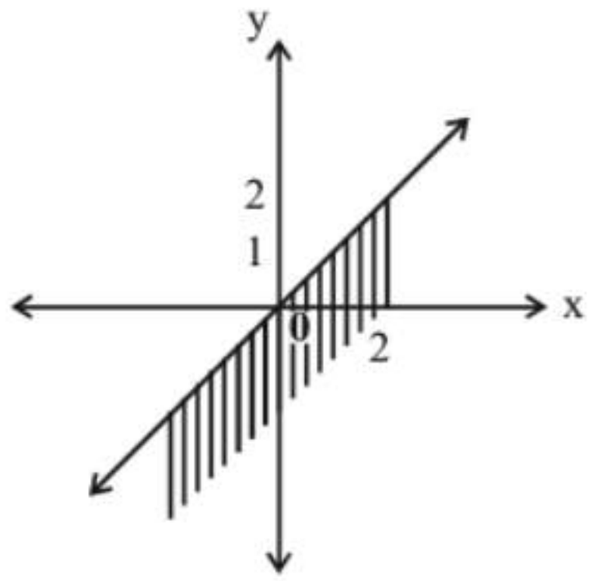
55. Bus fare between Raipur and Mirpur for one adult is six times the fare for one child. If an adult's bus fare is ₹ 114/, how much amount will be paid by 4 adults and 5 children together for travelling the same distance? [*SBI Clerk-2012*]

(a) ₹ 505/- (b) ₹ 551/-
(c) ₹ 572/- (d) ₹ 560/-
(e) None of these

56. The sum of the two digits of a two-digit number is 15 and the difference between the two digits of the two digit number is 3. What is the product of the two digits of the two digit number ? [*SBI Clerk-2014*]

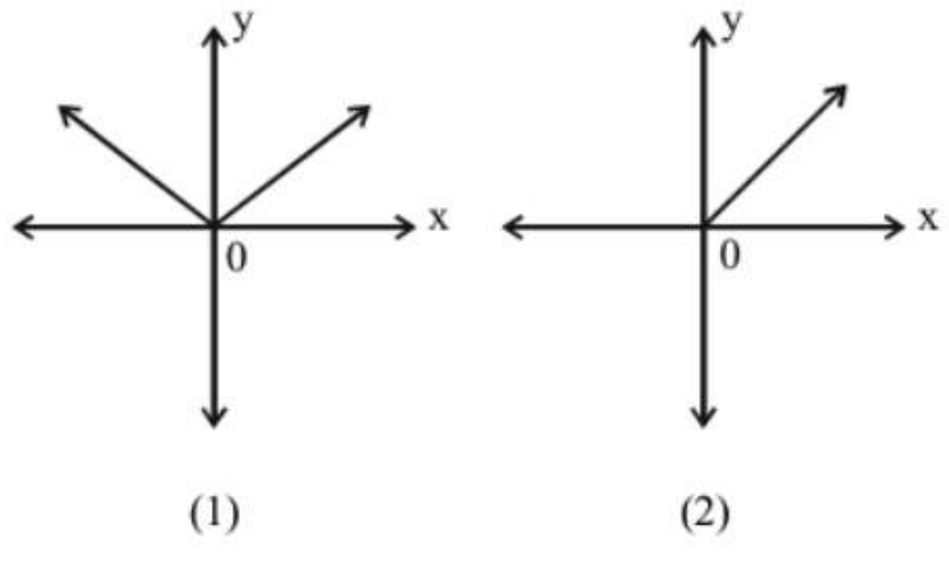
(a) 72 (b) 56
(c) 54 (d) Cannot be determined
(e) None of these

57. The shaded region represents [*SSC-Sub. Ins.-2012*]

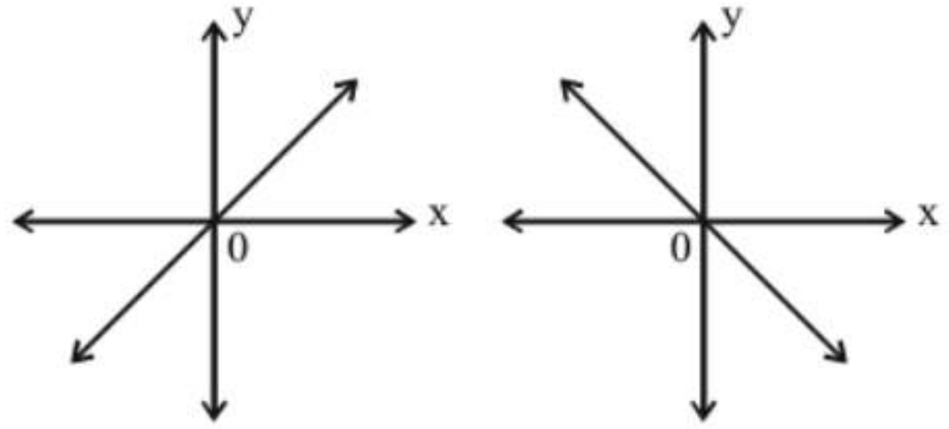


(a) $y \le x$ (b) $y \ge -x$
(c) $y \ge x$ (d) $y \le -x$

58. The graph of $y = x + |x|$ is given by [*SSC-Sub. Ins.-2012*]



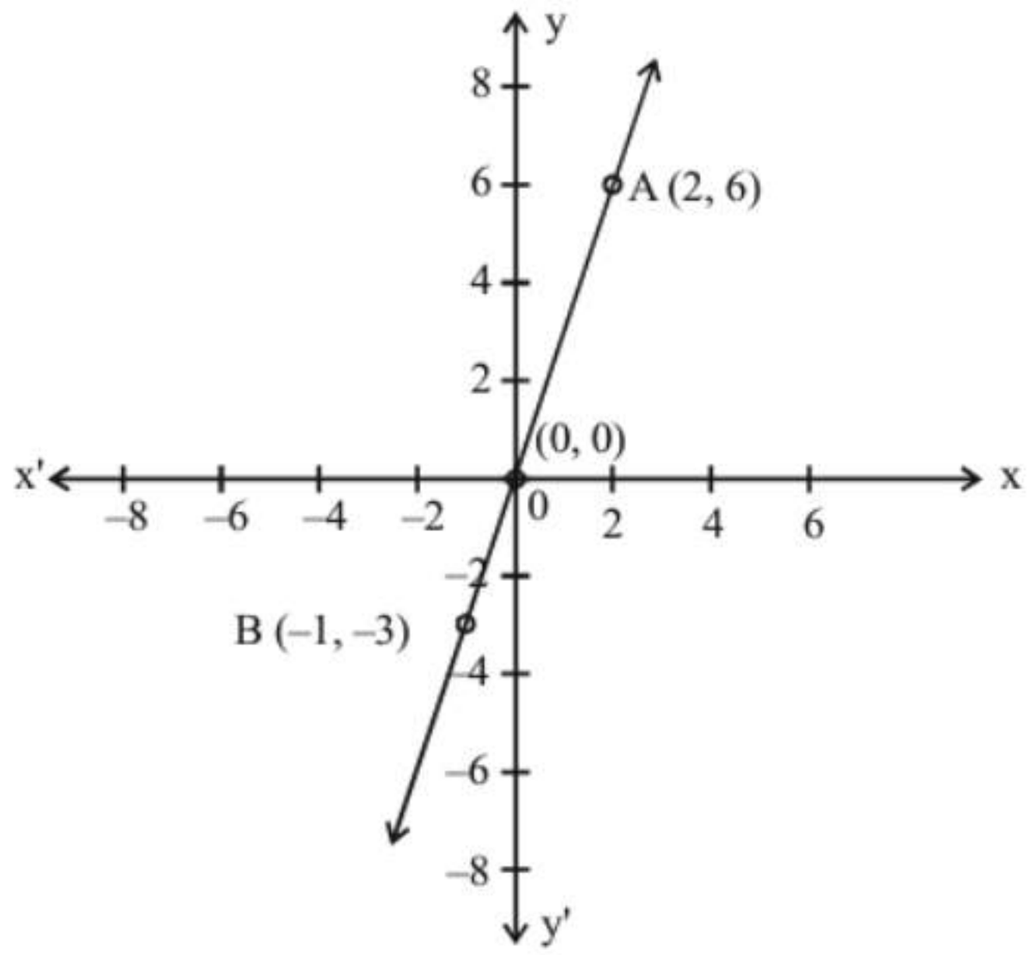
(1) (2)



(3) (4)

(a) 1 (b) 2
(c) 3 (d) 4

59. The equation of this graph is [*SSC-Sub. Ins.-2012*]



(a) $y = -x$ (b) $y = -3x$
(c) $y = x$ (d) $y = 3x$

60. The linear equation such that each point on its graph has an ordinate four times its abscissa is: [*SSC-Sub. Ins.-2013*]

(a) $y + 4x = 0$ (b) $y = 4x$
(c) $x = 4y$ (d) $x + 4y = 0$

61. A man ordered 4 pairs of black socks and some pairs of brown socks. The price of a black socks is double that of a brown pair. While preparing the bill the clerk interchanged the number of black and brown pairs by mistake which increased the bill by 50%. The ratio of the number of black and brown pairs of socks in the original order was : [*SSC-Sub. Ins.-2013*]

(a) 2 : 1 (b) 1 : 4
(c) 1 : 2 (d) 4 : 1

62. 11 friends went to a hotel and decided to pay the bill amount equally. But 10 of them could pay ₹ 60 each, as a result 11th has to pay ₹ 50 extra than his share. Find the amount paid by him. [*SSC-Sub. Ins.-2014*]

(a) ₹ 105 (b) ₹ 110
(c) ₹ 115 (d) ₹ 120

63. The present ages of two persons are 36 and 50 years respectively, if after n years the ratio of their ages will be 3 : 4, then the value of n is [*SSC-MT-2013*]

(a) 3 (b) 4
(c) 7 (d) 6

64. Number of solutions of the two equations $4x - y = 2$ and $2y - 8x + 4 = 0$ [*SSC 10+2-2013*] is

(a) infinitely many (b) zero
(c) one (d) two

65. Divide 50 into two parts so that the sum of their reciprocals is 1/12. [*SSC 10+2-2013*]
(a) 28, 22 (b) 35, 15
(c) 20, 30 (d) 24, 36

66. In a two-digit number, the digit at the unit's place is 1 less than twice the digit at the ten's place. If the digits at unit's and ten's place are interchanged, the difference between the new and the original number is less than the original number by 20. The original number is [*SSC 10+2-2013*]
(a) 47 (b) 59
(c) 23 (d) 35

67. The cost of 5 pens and 8 pencils is ₹ 31. What would be the cost of 15 pens and 24 pencils ? [*IBPS Clerk-2012*]
(a) ₹ 93 (b) ₹ 99
(c) ₹ 96 (d) Cannot be determined
(e) None of these

68. Joel purchased 40 notebooks at the rate of ₹ 18 per notebook and 55 pencils at the rate of ₹ 8 per pencil. What is the total amount that he paid to the shopkeeper ?[*IBPS Clerk-2012*]
(a) ₹ 1,165 (b) ₹ 1,160
(c) ₹ 1,166 (d) ₹ 1,161
(e) None of these

Level - II

1. The sum of the digits of a three-digit number is 16. If the tens digit of the number is 3 times the units digit and the units digit is one-fourth of the hundredth digit, then what is the number ?
(a) 446 (b) 561
(c) 682 (d) 862

2. A two digit number is such that the product of its digits is 14. When 45 is added to the number, then the digits interchange their places. Find the number.
(a) 72 (b) 27
(c) 37 (d) 14

3. When Ranjeev was born, his father was 32 years older than his brother and his mother was 25 years older than his sister. If Ranjeev's brother is 6 years older than Ranjeev and his mother is 3 years younger than his father, how old was Ranjeev's sister when he was born?
(a) 15 years (b) 14 years
(c) 7 years (d) 10 years

4. In an exercise room some discs of denominations 2 kg and 5 kg are kept for weightlifting. If the total number of discs is 21 and the weight of all the discs of 5 kg is equal to the weight of all the discs of 2 kg, find the weight of all the discs together.
(a) 80 kg (b) 90 kg
(c) 56 kg (d) None of these

5. One-third of Ramesh's marks in Arithmetic is equal to half his marks in English. If he gets 150 marks in the two subjects together, how many marks has he got in English?
(a) 60 (b) 120
(c) 30 (d) 50

6. The sum of four numbers is 64. If you add 3 to the first number, 3 is subtracted from the second number, the third is multiplied by 3 and the fourth is divided by 3, then all the results are equal. What is the difference between the largest and the smallest of the original numbers?
(a) 21 (b) 27
(c) 32 (d) Cannot be determined

7. In a family, a couple has a son and a daughter. The age of the father is three times of his daughter and the age of the son is half of his mother. The wife is nine years younger to her husband and the brother is seven years older than his sister. What is the age of the mother?
(a) 40 years (b) 50 years
(c) 45 years (d) 60 years

8. The sum of the numerator and denominator of a fraction is 11. If 1 is added to the numerator and 2 is subtracted from the denominator it becomes 3/2. The fraction is
(a) $\frac{3}{8}$ (b) $\frac{5}{6}$
(c) $\frac{7}{4}$ (d) $\frac{9}{2}$

9. In an objective examination of 90 questions, 5 marks are allotted for every correct answer and 2 marks are deducted for every wrong answer. After attempting all the 90 questions a student got a total of 387 marks. Find the number of questions that he attempted wrong.
(a) 36 (b) 18
(c) 9 (d) 27

10. Two different natural numbers are such that, their product is less than their sum. Then one of the number must be
(a) 3 (b) 1
(c) 2 (d) 0

11. Out of total number of students in a college 12% are interested in sports. $\frac{3}{4}$th the total number of students are interested in dancing. 10% of the total number of students are interested in singing and the remaining 15 students are not interested in any of the activities. What is the total number of students in the college?
(a) 450 (b) 500
(c) 600 (d) Cannot be determined

12. A number consists of two digits such that the digit in the ten's place is less by 2 than the digit in the unit's place. Three times the number added to $\frac{6}{7}$ times the number obtained by reversing the digits equals 108. The sum of digits in the number is :

(a) 8 (b) 9
(c) 6 (d) 7

13. When the numerator and the denominator of a fraction are increased by 1 and 2 respectively, the fraction becomes $\frac{2}{3}$, and when the numerator and the denominator of the same fraction are increased by 2 and 3 respectively, the fraction becomes $\frac{5}{7}$. What is the original fraction?

(a) $\frac{5}{6}$ (b) $\frac{3}{4}$
(c) $\frac{3}{5}$ (d) $\frac{6}{7}$

14. If three numbers are added in pairs, the sums equal 10, 19 and 21. Find the numbers.

(a) 6, 4, 15 (b) 1, 9, 12
(c) 9, 10, 2 (d) 5, 6, 10

15. Find the number of positive integer solutions of the equation $\frac{2}{x}+\frac{15}{y}=5$.

(a) 0 (b) 1
(c) 2 (d) 3

16. Of the three numbers, the sum of the first two is 45; the sum of the second and the third is 55 and the sum of the third and thrice the first is 90. The third number is

(a) 20 (b) 25
(c) 30 (d) 3

17. One of the angles of a triangle is two-third angle of sum of adjacent angles of parallelogram. Remaining angles of the triangle are in ratio 5 : 7 respectively. What is the value of second largest angle of the triangle?

(a) 25° (b) 40°
(c) 35° (d) Cannot be determined

18. Ramola's monthly income is three times Ravina's monthly income. Ravina's monthly income is fifteen percent more than Ruchira's monthly income. Ruchira's monthly income is ₹ 32,000. What is Ramola's annual income ? [*IBPS-PO-2011*]

(a) ₹ 1,10,400 (b) ₹ 13,24,800
(c) ₹ 36,800 (d) ₹ 52,200
(e) None of these

19. The respective ratio between the present age of Manisha and Deepali is 5 : X. Manisha is 9 years younger than Parineeta. Parineeta's age after 9 years will be 33 years. The difference between Deepali's and Manisha's age is same as the present age of Parineeta. What will come in place of X? [*IBPS-PO-2011*]

(a) 23 (b) 39
(c) 15 (d) Cannot be determined
(e) None of these

20. The fare of a bus is ₹ X for the first five kilometers and ₹ 13/- per kilometer thereafter. If a passenger pays ₹ 2402/- for a journey of 187 kilometers, what is the value of X ? [*IBPS-PO-2012*]

(a) ₹ 29/- (b) ₹ 39/-
(c) ₹ 36/- (d) ₹ 31/-
(e) None of these

21. The sum of the ages of 4 members of a family 5 years ago was 94 years. Today, when the daughter has been married off and replaced by a daughter-in-law, the sum of their ages is 92. Assuming that there has been no other change in the family structure and all the people are alive, what is the difference in the sum ages of three members and the daughter-in-law ? [*IBPS-PO-2012*]

(a) 22 years (b) 11 years
(c) 25 years (d) 19 years
(e) 15 years

22. If the positions of the digits of a two-digit number are interchanged, the number obtained is smaller than the original number by 27. If the digits of the number are in the ratio of 1 : 2, what is the original number? [*IBPS-PO-2013*]

(a) 36 (b) 63
(c) 48 (d) Cannot be determined
(e) None of these

23. 465 coins consists of 1 rupee, 50 paise and 25 paise coins. Their values are in the ratio 5: 3 : 1. The number of each type of coins respectively is [*SSC CGL-2012*]

(a) 155, 186, 124 (b) 154, 187, 124
(c) 154, 185, 126 (d) 150, 140, 175

24. If $a = 0$, $b \neq 0$, $c \neq 0$, then the equation $ax + by + c = 0$ represents a line parallel to [*SSC CGL-2013*]

(a) $x + y = 0$ (b) x-axis
(c) y-axis (d) None of these

25. For what value of k, the system of equations $kx + 2y = 2$ and $3x + y = 1$ will be coincident? [*SSC CGL-2014*]

(a) 2 (b) 3
(c) 5 (d) 6