Subject: – Mathematics

1. The difference between the place values of 7 in the numeral 574873 is

(a) 69930   (b) 59930   (c) 96390   (d) 69305   (e) None of these

2. $(387*387+114*114+2*387*114) = (?)$

(a) 250001   (b) 251001   (c) 260110   (d) 261001   (e) None of these

3. A trader has three types of oils: 400 litres and 465 litres, respectively. If he wants to fill them separately in tins of equal capacity, what is the least number so tins required?

(a) 42   (b) 21   (c) 7   (d) 84   (e) None of these

4. The length and breadth of a room are 13m and 7.5m, respectively. The floor of the room is to be paved with square tiles of uniform size. Determine the length of the largest possible size of the tile.

(a) 1.0 m   (b) 0.5 m   (c) 1.5 m   (d) 5.0   (e) 6.0

5. If the unit digit in the product $(459*46*28?*484)$ is 2, the digit in place of ?is

(a) 3   (b) 5   (c) 7   (d) 8   (e) None of these

6. Which one of the following numbers is not a square of any natural number?

(a) 17956   (b) 18225   (c) 53361   (d) 63592   (e) None of these

7. A third of Vinod's marks in mathematics exceeds a half of his marks in social studies by 30. If he got 240 marks in the two subjects together, how many marks did he get in social studies?

(a) 40   (b) 60   (c) 80   (d) 90   (e) None of these

8. A class starts at 10 a.m. and lasts till 1.27 p.m. Four periods are held during this interval. After every period, 5 minutes are given free to the students. The exact duration of each period is

(a) 42 minutes   (b) 48 minutes   (c) 51 minutes   (d) 53 minutes   (e) None of these

9. If $(64)^2-(36)^2= 20z$, the value of z is

(a) 70   (b) 180   (c) 120   (d) 50   (e) None of these

10. What number should replace both the asterisks in $(?/21*?/189) = 1$?

(a) 21   (b) 63   (c) 147   (d) 3969   (e) 4968

11. Which one of the following fractions is the smallest?

(a) 13/16   (b) 15/19   (c) 17/21   (d) 7/8   (e) None of these

12. If the difference between the 4/5th part and 1/3rd part of a number is 4 what is the number?

(a) 60   (b) 100   (c) 80   (d) 120
(e) None of these

13. If x and y are +ive integers such that (3x+7y) is a multiple of 11, then which of the following will also be divisible by 11?

(a0 4x+6y   (b) x+y+4   (c) 9x+4y   (d) 4x-9y   (e) None of these

14. If x and y are the two digits of the number 653 xy such that this number is divisible by so, then x+y is equal to

(a) 2   (b) 3   (c) 4   (d) 6
(e) None of these

15. What is the smallest number by which 3600 be divided to make it a perfect cube?

(a) 9   (b) 50   (c) 300   (d) 450
(e) 500

16. What may be substracted from 39468 to make it perfect square?

(a) 192   (b) 264   (dc) 246   (d) 280
(e) None of these

17. 1399*1399=?

(a) 1687401   (b) 1901541   (c) 1943211   (d) 1957201   (e) None of these

18. The product of two numbers is y/x. IF one of the numbers is x/y^2, then the other one is

(a) y^3/x^2 (b) y^2/x^3 (c) x^2/y (d) x/y^2
(e) x^2/y^2

19. Mukesh has twice as much money as Sohan and Sohan has 50% more money than what Pankaj has. If the average money with them is Rs 110, then Mukesh has

(a) Rs 55   (b) Rs 60   (c) Rs 90   (d) Rs 180   (e) Rs 200

20. A cricketer has a certain average for 9 innings. In the tenth inning, he scores 100 runs, thereby increasing his average by 8 runs. His new average is

(a) 20 runs   (b) 24 runs   (c) 28 runs   (d) 32 runs   (e) None of these

21. A number when divided by 296 gives a remainder 75. What will be the remainder when the same number is divided by 37?

(a) 3   (b) 5   (c) 1   (d) 6
(e) 8

22. What will be the sum of all odd numbers between 30 and 50?

(a)   625   (b)   400   (c)   225   (d) 500   (e) 600

23. In an election between two candidates, a candidate who gets 40 percent of total votes is defeated by 15000 votes. The number of votes polled by the winning candidate is

(a) 6000   (b) 10000   (c) 22500   (d) 45000   (e) 10% increase

24. The population of a town increases by 15 percent annually. If its population was 8000 in 1995, what would it be in 1997?

(a) 9200   (b) 10400   (c) 9600   (d) 10580   (e) None of these

25. What will be the sum of all the even numbers between 1 and 60?

(a) 870   (b) 960   (c) 840   (d) 720
(e) None of these

26. Find the largest number of five digits which is divisible by 17.

(a) 99999   (b) 99960   (c) 99994   (d) 10013   (e) 10014

27. A sum of money was divided between A, B and C, such that when A gets Re 1 then B gets 65 paise and C gets 40 paise. If C's share be Rs 40 then what is that sum of money?

(a) Rs 82   (b) Rs 126.15   (c) Rs 105   (d) Rs 205   (e) Rs 305

28. Marks obtained by Komal in English are equal to $1/3^{rd}$ of marks obtained by her in Music. Total marks obtained by her in both the subjects is 160. How many marks did she secure in Music?

(a) 120   (b) 60   (c) 30   (d) 90
(e) 100

29. How many numbers up to three digits are divisible by 19?

(a) 48   (b) 47   (c) 25   (d) 52
(e) 54

30. What is the largest prime number by which 871 is exactly divisible?

(a) 13   (b) 1   (c) 67   (d) 871
(e) None of these

31. Vivek purchased 120 tables at a price of Rs 110 per table. He sold 30 tables at a profit of Rs 12 per table and 75 tables at a profit of Rs 14 per table. The remaining tables were sold at a loss of Rs 7 per table. What is the average profit per table?

(a) Rs 12.875   (b) Rs 10.04   (c) 10.875   (d) Rs 12.80   (e) Rs 13.80

32. A book dealer allows 16 per cent discount to a retailer and the retailer allows 10 per cent discount to a customer. These both discounts are given on the printed price of the book. If the customer pays Rs 270 for a book and the dealer makes a profit of 5 per cent what is the cost price of the book for the dealer?

(a) Rs 252   (b) Rs 243   (c) Rs 240   (d) Rs 250   (e) Rs 350

33. The difference between the greatest and the least numbers of eight digits which begin with 8 and end with 6 is
(a) 99999999   (b) 10000000   (c) 80000006   (d) 9999996   (e) None of these

34. If a*b=a2+b2 then 3*5 is equal to
(a) 16   (b) 34   (c) 8   (d) 15
(e) 18

35. The Simple interest on a sum of money at 8 per cent per annum for 6 years is half the sum. The sum is
(a) Rs 4800   (b) Rs 6000   (c) Rs 8000   (d) Rs 7000   (e) Data inadequate

36. How long will it take a sum of money invested at 5 per cent per annum simple interest to increase its value by 40 per cent?
(a) 5 years   (b) 6 years   (c) 7 years   (d) 8 years   (e) 10 years

37. A number, when successively divided by 3 and 5, leaves remainder of 2 and 1, when the same number is divided by 15, the remainder is
(a) 1   (b) 2   (c) 5   (d) 7
(e) 10

38. The numbers 1, 3, 5, ..., 25 are multiplied together. The numbers of zeros at the right end of the product is
(a) 1   (b) 0   (c) 2   (d) 3
(e) 8

39. What will be the compound interest on Rs 240 for 2 years at 4 per cent per annum?
(a) Rs 19.20   (b) Rs 9.60   (c) Rs 19.18   (d) Rs 19.58   (e) Rs 20.58

40. Find the compound interest on Rs 15000 at 8 per cent per annum payable half-yearly for 1 year.
(a) Rs 1500   (b) Rs 1432   (c) Rs 1200   (d) Rs 1224   (e) Rs 1324

41. A is twice as good a workman as B and together they finish a piece of work in 14 days. The number of days taken by A alone to finish the work, is
(a) 11   (b) 21   (c) 28   (d) 42
(e) 50

42. A and B can do a work in 10 days. B and C in 12 days while C and A in 15 days. How long would they take if all the three work together?
(a) 5days   (b) 4 days   (c) 7 days   (d) 8 days   (e) 10 days

43. A is twice as fast as B and B is thrice as fast as C is. The journey covered by C in 54 minutes will be covered by B in
(a) 18 min   (b) 27 min   (c) 38 min   (d) 9 min   (e) 10 min

44. In how many seconds a cyclist will pass a distance of 100 metres at the speed of 10 km/hr.

(a) 25 sec   (b) 36 sec   (c) 40 sec   (d) 42 sec
(e) 50 sec

45. At 3.40, the hour hand and the minute hand of a clock form an angle of
(a) 120°   (b) 125°   (c) 130°   (d) 135°   (e) 140°

46. How many times are the hands of a clock at right angles in a day?
(a) 22   (b) 24   (c) 44   (d) 48
(e) 50

47. Today is Tuesday. After 62 days it will be
(a) Wednesday   (b) Monday   (c) Thursday   (d) Sunday
(e) Tuesday

48. The day on March of 5 of a year is the same day on what date of the same year?
(a) 5th August   (b) 5th October   (c) 5 November   (d) 5 December   (e) None of these

49. A garden is 70 m long and 30 m wide. It is surrounded by a footpath 5 m wide outside. What is the area of the path?
(a) 2200 m^2 (b) 1100 m^2 (c) 550 m^2 (d) 625 m^2 (e) 700 m^2

50. If the volume of a sphere is divided by its surface area, the result is 27 cm. The radius of the sphere is
(a) 81 cm   (b) 9 cm   (c) 54 cm   (d) 36 cm
(e) 40 cm

Answer of these Questions:-

1	2	3	4	5	6	7	8	9	10
A	B	A	B	C	D	D	B	D	B
11	12	13	14	15	16	17	18	19	20
B	D	B	D	D	B	D	A	D	C
21	22	23	24	25	26	27	28	29	30
C	B	D	D	A	C	D	A	D	C
31	32	33	34	35	36	37	38	39	40
C	C	D	B	D	D	C	B	D	D
41	42	43	44	45	46	47	48	49	50
B	D	A	B	C	C	B	C	B	A