Q. 1. In the multiplication given besides each distinct letter represents a single distinct digit. Find the digit represented by D ?

(1) 3 (2) 1 (3) 4 (4) 2

$$\begin{array}{r} A\,6\,B\,C \\ \times \quad 7 \\ \hline D\,9\,E\,9\,8 \end{array}$$

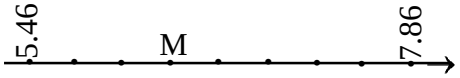
Q. 2. On Saturday afternoon Arnav sent 'm' text messages each hour for 5 hours and Pranav sent 'p' text messages each hour for 4 hours. Which of the following represents the total number of messages sent by Arnav and Pranav on Saturday afternoon?

(1) 9mp (2) 9 (m + p) (3) 5m + 4p (4) 20mp

Q. 3. If 20% of an electricity bill is deducted, then Rs.100 is still to be paid. How much was the original bill?

(1) Rs.110 (2) Rs.115 (3) Rs,120 (4) Rs.125

Q. 4. On the number line given besides, the points are equally spaced. What number is represented by the point 'M' ?



(1) 5.52 (2) 6.36 (3) 6.66 (4) 6.96

Q. 5. If (x + 21) is an odd number, then find the 3rd even number coming after it ?

(1) (x + 24) (2) (x – 24) (3) (x + 26) (4) (x + 27)

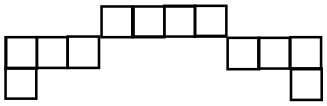
Q. 6. Which of the given expression has the greatest value?

(1) 10 – 3 x 3 (2) (10 + 3) x 3 (3) 10 x 3 + 3 (4) 3 x 3 + 10

Q. 7. What is the complementary angle of the angle $(x - 35)^{o}$?

(1) $(x + 35)^{o}$ (2) $(35 - x)^{o}$ (3) $(125 - x)^{o}$ (4) $(x - 55)^{o}$

Q. 8. Squares of side 1.5cm are arranged to form the figure shown What is the perimeter of the figure?

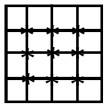


(1) 48 cm (2) 45 cm (3) 36 cm (4) 54 cm

Q. 9. A man earned Rs.120 when he sold 8 dozens of mangoes. How much would he earn if he sold 20 dozens of mangoes?

(1) Rs.960 (2) Rs. 480 (3) Rs. 300 (4) Rs.240

Q. 10. The nine interior intersection points on a 4 x 4 grid of squares are shown besides.How many interior intersection points are there on a 16 x 16 grid of squares?

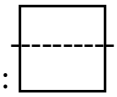


(1) 225 (2) 196 (3) 256 (4) 144

Q. 11. A right angled triangle has its sides measures 7cm, 24cm and 25cm. Which of the following calculation could work out to be its area in sq.cm.?

(1) $\frac{7 \times 24 \times 25}{2}$ (2) 7 x 12 (3) 12 x 12.5 (4) 3.5 x 12

Q. 12. In April Harry bought a saddle for his horse for Rs. 100. In May he sold it for Rs.200. In June he was sorry he had sold it, so he bought it back for Rs.300. In July he got tired of it, so he sold it for Rs.400. Which of the following is true outcome of his trasactions?
(1) Loss of Rs.100 (2) Profit of Rs.100 (3) Profit of Rs.200 (4) No Profit nor Loss

Q. 13. A square is cut along the centre of its side to make two identical rectangles. 
If the perimeter of each rectangle is 48 cm, then the perimeter of the square is:
(1) 96 cm (2) 144 cm (3) 72 cm (4) 64 cm

Q. 14. Find the value of 'x' in the equation $3x + 7 = 1 - 2x$
(1) $\frac{1}{5}$ (2) $-\frac{7}{6}$ (3) $-\frac{6}{5}$ (4) -6

Q. 15. A fruit seller sells only apples(A), mangoes(M) and oranges(O). The total number of A and M with him are 400, the total number of M and O he has is 300, and the total numbers of A and O he has is 440. If he sells 100 fruits of each type, how many fruits of each type are remaining with him?
(1) A= 270, M = 100 & O =50 (2) A= 170, M = 30 & O =70
(3) A= 300, M = 200 & O =140 (4) A= 150, M = 60 & O =50

Q. 16. In which of the numbers given below will the difference between the place values of the digit 9 and 7 be 83000?
(1) 1907000 (2) 109700 (3) 197000 (4) 91700

Q. 17. Three electronic bells beep after every 2, 5 and 8 minutes. If they all beeped together at 10:00 a.m when will they beep together the next time ?
(1) 10: 40 a.m. (2) 10: 32 a.m. (3) 10: 30 a.m. (4) 11: 20 a.m.

Q. 18. In what time will Rs.25 become Rs.37 at 16% p.a. simple interest?
(1) 6 months (2) 2 years (3) 3 years (4) 2 years 6 months

Q. 19. If $\frac{5}{8}$ of the teachers of a coaching class plays chess, $\frac{3}{8}$ teachers play carrom and $\frac{1}{4}$ play both chess and carrom. What fraction of the teachers play neither of the two games?
(1) $\frac{1}{4}$ (2) $\frac{1}{8}$ (3) $\frac{1}{2}$ (4) 0

Q. 20. An ant moves 15 feet per minute. How many feet does it travel in 24 minutes and 40 seconds?
(1) 360 ft. (2) 370 ft. (3) 385 ft. (4) 365 ft.

Q. 21. Krina used her calculator and multiplied a number by 20 instead of by 2. What could she now do to obtain the correct answer?
(1) Divide by 20 (2) Divide by 40 (3) Multiply by 0.5 (4) Multiply by 0.1

Q. 22. If $\frac{a}{b} = 2$, what is the value of $\frac{4b}{a}$? (1) 0 (2) 1 (3) 2 (4) 4

Q. 23. The sum of two consecutive prime numbers is 42. What is the difference of those two prime numbers?
(1) 2 (2) 4 (3) 5 (4) 3

Q. 24. A man takes up a work to be completed in 30 days for Rs.27000. He works for 18 days and then leaves. If you were the employer, how much would you pay him?
(1) Rs.16000 (2) Rs.18000 (3) Rs.16200 (4) Rs.18400

Q. 25. Find the least number that must be added to 1300 so as to get a perfect square number?
(1) 61 (2) 65 (3) 64 (4) 69

Q. 26. Simplify using BODMAS : 778 – [5 + 3 of (25 – 2 x 10)]
(1) 83 (2) 738 (3) 758 (4) 788

Q. 27. The length and width of a rectangle are 12 cm and 8 cm respectively. Another rectangle whose area is same as the first rectangle, has length 16 cm. What could be the width of this rectangle?
(1) 8 cm (2) 10 cm (3) 4 cm (4) 6 cm

Q. 28. Ajay writes the sequence : 3, 14, 25, 36, ... Which of the following numbers can appear in his sequence?
(1) 114 (2) 111 (3) 110 (4) 113

Q. 29. The H.C.F. of 513, 1134 and 1215 is :
(1) 18 (2) 27 (3) 15 (4) 33

Q. 30. Kedar borrowed Rs.12000 from his friend at simple interest. He returned his friend Rs.15600 in full settelment of his loan after 5 years. What was the rate of interest charged by his friend?
(1) 6% p.a. (2) 5% p.a. (3) 12% p.a (4) 8% p.a.

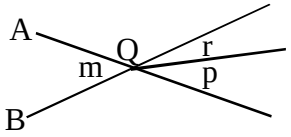
Q. 31. A hospital stores one type of medicine in a 2-decagram container. How many 1-milligram doses are there in a 2-decagram container?
(1) 0.002 (2) 200 (3) 2000 (4) 20000

Q. 32. What is 5% of 5% of Rs.100?
(1) Rs. 0.50 (2) Rs. 0.25 (3) Rs.1 (4) Rs.25

Q. 33. When a number X is divided by 5 the remainder is 2. When another number Y is divided by 5 the remainder is 4. When you divide X + Y by 5, then what should be the remainder?
(1) 0 (2) 1 (3) 2 (4) 3

Q. 34. A shopkeeper sold a bat for Rs.600 making a profit of 20%. What was the cost price of the bat?
(1) Rs.480 (2) Rs.580 (3) Rs.540 (4) Rs.500

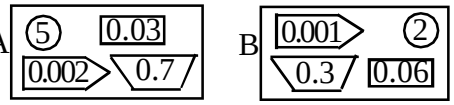
Q. 35. In the figure given besides lines A and B intersect at point Q
If $\angle m = 40^o$ and $\angle r = 18.5^o$, what is the value of $\angle p$
(1) 58.5^o (2) 22.5^o (3) 12.5^o (4) 21.5^o



Q. 36. The sum of three consecutive natural numbers is 66. Which of the following can be one of the numbers of them?
(1) 23 (2) 24 (3) 17 (4) 19

Q. 37. Jack is reading a book whose pages are numbered from 1. The page numbers of the book has a total of 555 digits. How many pages are there in Jack's book?
(1) 221 (2) 366 (3) 361 (4) 291

Q. 38. Use the place value to work out the numbers in boxes A and B and then find the difference between A and B



(1) 3.002 (2) 3.371 (3) 3.560 (4) 3.722

Q. 39. Which of the following fraction is less than $\frac{1}{20}$?
(1) $\frac{1}{10}$ (2) $\frac{1}{15}$ (3) $\frac{1}{12}$ (4) $\frac{1}{22}$

Q. 40. An insect flies at the rate of 10m/sec. What is its speed ?
(1) 18 km/hr (2) 60 km/hr (3) 36 km/hr (4) 24 km/hr