

1) A student scores 55% marks in 8 papers of 100 marks each. He scores 15% of his total marks in English. How much does he score in English?

- a) 55
- b) 66
- c) 77
- d) 44
- e) None of these

Answer: Option b

Given that a student scores 55% marks in English in 8 papers of 100 marks each.

Hence, his total marks =  $(55 \times 800)/100 = 440$

15% of his 440 marks =  $440 \times (15/100) = 66 =$  Marks scored in English.

2) A software engineer creates a LAN game where an 8 digit code made up of 1,2,3,4,5,6, 7,8 has to be decided on as a universal code. There is a condition that each number has to be used and no number can be repeated. What is the probability that the first 4 digits of the code are even number?

- a)  $1/70$
- b)  $1/840$
- c)  $1/8$
- d)  $1/40320$

Answer: Option a

Total no of possible ways are  $8!$

The total number of possible ways to find even numbers at the last 4 digits are  $4!$

The total number of possible ways to find odd numbers at the last 4 digits are  $4!$

So, the probability that the first 4 digits of the code are even number =  $4! \times 4! / 8! = 1/70$

3) A car is 250 meters behind the bus. The car and bus are moving at a speed of 60 km/hr and 35 km/hr respectively. In what time will the car be ahead of the bus by

250 meters.

- a) 37 secs
- b) 48 secs
- c) 72 secs
- d) 68 secs

Answer: Option c

Relative speed =  $60 - 35 = 25$  Km/hr.

For the car to be ahead of the bus by 250 meters, it needs to cover =  $250 + 250 = 500$  m = 0.5 kms.

Time taken to cover 0.5 km =  $0.5 / 25 = 1/50$  hrs = 72 secs

4) Square of 2 more than a 2 digit number is multiplied and % by 2 and 5 respectively. If twice of the result is equal to 500 then find the number.

- a) 45
- b) 23
- c) 87
- d) 47

Answer: Option b

Let Y be the number

$$(((Y+2)^2) \times 2 \% 5) \times 2 = 500.$$

On solving this, you get  $Y = 23$

5) A, B and C can do a piece of work in 30, 45, and 90 days. In how many days can A alone do the work if he is assisted by B and C on every 4th day?

- a) 12 days
- b) 24 days
- c) 36 days

d) 48 days

Answer: Option b

A's 1 day work =  $1/30$ .

A's 3 day work =  $3/30$

(A+B+C) 1 day work =  $(1/30 + 1/45 + 1/90) = 1/15$

4 days work =  $3/30 + 1/15 = 1/6$ .

Total work will be done in =  $4 \times 6 = 24$  days

6) A starts a business with Rs.3500 and after 5 months, B joins with A as his partner. After a year, the profit is divided in the ratio 2:3. What is B's contribution to the Capital?

a) 5000

b) 7500

c) 9000

d) 9500

Answer: Option c

Let x be the capital invested by B.

Profit will be divided in the ratio of 2:3 =  $(12 \times 3500) : 7x = 6000 : x$ .

$2/3 = 6000/x$

$x = 9000$

7) What will be the value of  $x^{(1/2)} \cdot x^{(1/4)} \cdot x^{(1/8)} \dots$  to infinity.

a)  $x^2$

b) x

c)  $x^{(3/2)}$

d)  $x^3$

Answer: Option c

The term is  $x^{(1/2 + 1/4 + 1/8 + \dots)}$ . Sum of infinite series with first term  $1/2$  and common ratio of  $1/2$  is 1. So the answer is 'x'.

8) For the word SURITI, if you arrange the letters in dictionary order then what is its rank?

- a) 234
- b) 235
- c) 236
- d) 237

Answer: Option c

$$I = 5! = 120$$

$$R = 5!/2 = 60$$

$$SI = 4! = 24$$

$$SR = 4!/2 = 12$$

$$ST = 4!/2 = 12$$

$$SUI = 3! = 6$$

$$= 234 \text{ Words}$$

So, words with SUR begins from 235. SURIIT is the 235th word and SURITI is the 236th word.

9) There are two sections in a question paper each contains five questions. A student has to answer 6 questions. The maximum number of questions that can be answered from any section is 4. How many ways he can attempt the paper?

- a) 50
- b) 100
- c) 120
- d) 200

Answer:Option d

Possible ways in which he can attempt 6 questions are

$${}^5C_4 \cdot {}^5C_2 = 50$$

$${}^5C_3 \cdot {}^5C_3 = 100$$

$${}^5C_2 \cdot {}^5C_4 = 50$$

$$50 + 100 + 50 = 200$$

10) If 5 men take an hour to dig a ditch, then how long should 12 men take a dig to the ditch of the same type?

a) 25 min

b) 30 min

c) 28 min

d) 20 min

Answer:Option a

$$M_1H_1 = M_2H_2$$

$$5 \cdot 60 = 12 \cdot H_2$$

$$H_2 = 25 \text{ min}$$

11) Sameer plants 7225 plants so that there are as many rows as there are trees in a row. How many trees are there in a row?

(a) 75

(b) 95

(c) 85

(d) 65

Answer: c

12) If at 15% profit, the selling price of a dozen pencils is Rs.13.80; then what is the cost price of a pencil?

- (a) 1.15
- (b) 1
- (c) 1.05
- (d) 85

Answer: b

13) In an annual sale, there was a flat discount of 40% on all items. Kamal bought a pair of jeans for Rs. 480. What is the labeled price of the pair of jeans.?

- (a) 799
- (b) 699
- (c) 899
- (d) 720

Answer: a

14)  $2^{288}/2^n = 512$

- (a) 219
- (b) 218
- (c) 237
- (d) none

Answer: d

15) If  $10 \text{ base } C_x = 1$ , what is the value of  $X$ , if  $X$  NOT EQUAL to  $0$ ?

- (a) 1
- (b) 5
- (c) 10
- (d) 15

Answer: c

16) What is the relation between  $14/15$  and  $34/70$ ?

- (a) Equal to
- (b) Grater than
- (c) Less than
- (d) None of the above

Answer: b

17) Find the sum of two consecutive no? If the difference of squares of the two numbers is 19.

- (a) 19
- (b) 20
- (c) 21
- (d) 22

Answer: a

18) If  $764xy$  is divisible by 90, then what will be the value of  $x+y$ ?

- (a) 2
- (b) 3
- (c) 1
- (d) 5

Answer: c

19) If we permute 5 letters of the word mango, the number of permuted words with n at the second place are

- (a) 20
- (b) 24
- (c) 25
- (d) 30

Answer: b

20) A sum of money triples itself at compound interest in 3 years. In 9 years it will be:

- (a) 6 times the principal
- (b) 12 times the principal
- (c) 18 times the principal
- (d) 27 times the principal

Answer: d