

**1) 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

$${}^5C_4 * {}^5C_2 = 50$$

$${}^5C_3 * {}^5C_3 = 100$$

$${}^5C_2 * {}^5C_4 = 50$$

$$50 + 100 + 50 = 200$$

**2) 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**

$$M_1H_1 = M_2H_2$$

$$5*60 = 12*H_2$$

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

**Q3.** A car is 250 meters behind the bus. The car and the 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 seconds

B. 48 seconds

C. 72 seconds

D. 68 seconds

**Answer: Option C**

**Explanation:**

Initially the car is 250 meters behind the bus. We have to find the time taken by the car to be ahead of the bus by 250 meters.

So the car should first cover the 250 meters by which it is behind and then again another 250 meters to be ahead of the bus.

Thus, the total distance to be covered =  $(250 + 250) = 500$  meters

Throughout the journey both the car and the bus are in motion. So, this distance of 500 meters is to be covered by both the car and the bus together.

Here both the car and the bus are moving in the same direction.

Thus, the relative speed = Speed of the car – Speed of the bus =  $(60 - 35) = 25$  km/hr

$25 \text{ km/hr} = 25 \times (5/18) \text{ m/s} = 125/18 \text{ m/s}$

At the relative speed of  $125/18 \text{ m/s}$  time taken to cover the distance of 500 meters =  $500 / (125/18) = 72$  seconds

**Q4.** A, B and C can do a piece of work in 30, 45, and 90 days respectively. 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

**Explanation:**

Let us first assume the total work as the LCM of (30, 45, 90)

So, total work = LCM of (30, 45, 90) = 90 units

If the total work is 90 units then,

The efficiency of A =  $90/30 = 3$  u/d;

The efficiency of B =  $90/45 = 2$  u/d;

The efficiency of C =  $90/90 = 1$  u/d

Given that A alone starts the work and he is assisted by B and C on every 4th day

So, the work completed at the end of first 4 days = Work completed by A in the first 3 days + Work completed by A, B and C together in the fourth day

Work completed at the end of first 4 days =  $(3 \times 3) + ((3 + 2 + 1) \times 1) = (9 + 6) = 15$  units

This cycle of A working alone for 3 days and being accompanied by B and C on the fourth day is repeated.

So, it is very clear that a total of 15 units of work is completed in every 4 days.

In this pattern the number of cycles required to complete the total work of 90 units =  $90/15 = 6$  cycles where each cycle is comprised of 4 days

Thus, the total number of days required =  $(6 \times 4) = 24$  days

**Q5.** 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. Rs. 5000
- B. Rs. 7500
- C. Rs. 9000
- D. Rs. 9500

**Answer:** Option C

**Explanation:**

We know that the profit share is dependent on both the amount of investment and the period of investment.

Given that the amount invested by A = Rs. 3500

Also A kept his investment throughout the year (i.e. for all the 12 months)

Let the amount invested by B be Rs. P

B joined the business only after 5 months. So B would have kept his investment for 7 months

So, the ratio in which the profit should be shared between A and B =  $(3500 \times 12) : (P \times 7)$

Given ratio is 2 : 3

So, if we equate the same we get,

$$3 \times 3500 \times 12 = 2 \times P \times 7$$

Thus,  $P = \text{Rs. } 9000$  which is the required investment made by B

**Q6.** 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. In how many ways can he attempt the paper?

- A. 50
- B. 100
- C. 120
- D. 200

**Answer:** Option D

**Explanation:**

Given that there are two sections of 5 questions each. And the maximum number of questions that can be answered from any section is 4.

So, 6 questions in total can be attempted from these two sections in the following ways:

- i) 4 questions from section 1 and 2 questions from section 2
- ii) 3 questions from section 1 and 3 questions from section 2

iii) 2 questions from section 1 and 4 questions from section 2

Now the number of ways of selecting:

i) 4 questions from section 1 and 2 questions from section 2 =  
 ${}^5C_4 \times {}^5C_2 = 5 \times 10 = 50$

ii) 3 questions from section 1 and 3 questions from section 2 =  
 ${}^5C_3 \times {}^5C_3 = 10 \times 10 = 100$

iii) 2 questions from section 1 and 4 questions from section 2 =  
 ${}^5C_2 \times {}^5C_4 = 5 \times 10 = 50$

Thus, the total number of ways in which a student can attempt the test paper =  $(50 + 100 + 50) = 200$  ways.

**Q7.** 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:** Option A

**Explanation:**

Given that there was a flat discount of 40% on all items. The discount would have been given on the labeled price to get the selling price.

Here the selling price is given as Rs. 480. We have to find the labeled price.

As a discount of 40% was given on the labeled price, the selling price of Rs. 480 would have been the resultant after a reduction of 40% from the labeled price. Thus,

Labeled price – 40% of labeled price = Selling price

Labeled price – 0.4 Labeled price = 480

0.6 Labeled price = 480

Thus, Labeled price =  $480/0.6 = \text{Rs. } 800$

One close value is given in option A (Rs. 799) and hence is the answer.

## Logical Reasoning

Questions 1 to 2: Read the following instructions carefully and answer the questions given below it. **(Wipro 2015)**

From a group of six boys M,N,O,P,Q,R and five girls G,H,I,J,K a team of six is to be selected. Some of the criteria of selection are as follows:

- (i) M and J go together.
- (ii) O cannot be placed with N.
- (iii) I cannot go with J.

(iv) N goes with H.

(v) P and Q have to be together.

(vi) K and R go together.

Unless otherwise stated, these criteria are applicable to all the following questions.

**1) If the team consists of 2 girls and I is one of them, the other members are \_\_\_\_\_.**

A) GMRPQ B) HNOPQ C) KOPQR D) KRMNP

**2) If the team has four boys including O and R, the members of the team other than O and R are \_\_\_\_.**

A) HIPQ B) GKPQ C) GJPQ D) GJMP

**3) In a certain code, if 352168305 denotes INFLATION, and 7439% denotes PRICE, then what will 23565%9 denotes?**

A) FINANCE B) FINNCEA C) FINANEC D) FINAENC

**4) What should come in the place of question mark?(Wipro 2017)13  
21 37 ? 133 261**

A) 69 B) 64 C) 32 D)168

**5) What should come in the place of question mark? 15625 6250 2500 1000 ? 160**

A) 600 B) 400 C) 500 D) 650

**6) If 21st December 2013 Wednesday falls. What day of the week will it be on the same day in 2017?**

A) Sunday B) Monday C) Saturday D) Friday

**7) Find which conclusion follows the statements.**

**Statements:**

All papers are stones.

All stone are scissors.

**Conclusions:**

Some scissors are papers

All scissors are papers

A) Only I follows B) Only II follows C) Either I or II follows D) None follows

**9) Find the odd man out.**

A) Sphere B) Cube C) Circle D) Ellipse

## **Verbal Ability**

**1) In each following questions, out of the given alternatives, choose the one which best expresses the meaning of the given word -Mayhem**

A) Jubilation B) Havoc C) Excitement D) Defeat

**2) Choose the option which gives the closest meaning to the phrase given below. (Wipro 2017)**

Phrase: Beat about the bush

a) Discuss a matter without coming to the point

b) Roaming without any goal

c) Killing the snake near the bush

d) Taciturn

**3) Arrange the below statements in the order of their occurrence. Note that the first (S1) and last statement (S6) are given.**

**S1: In the middle of one side of the square sits the Chairman of the committee, the most important person in the room.**

P: For a committee is not just a mere collection of individuals.

Q: On him rests much of the responsibility for the success or failure of the committee.

R: While this is happening we have an opportunity to get the feel of this committee.

S: As the meeting opens, he runs briskly through a number of formalities.

**S6: From the moment its members meet, it begins to have a sort nebulous life of its own.**

A) RSQP B) PQRS C) SQPR D) QSRP

**4) Each of the following sentences has been divided into four parts. There is an error in one of the parts. Point out the part which has an error. (Wipro 2017)**

(A)The small child/ (B) does/ (C) whatever his father/ (D) was done.

(E)No error

A)A B) B C) C D) D E) E

**5) In each of the following questions, there is a certain relationship between the two given words on one sideof::and one word is given on**

**another side of :: Another word is to be found from the given alternatives, having the same relationship with this word as the words in the given pair. Choose the correct alternative. (Wipro 2017)**

College:Student :: Hospital:?

A) nurse B) doctor C) treatment D) patient

**The passage given below is followed by a set of five questions. Choose the most appropriate answer to each question.**

Today the import duty on a complete machine is 35% for all practical purposes, whereas the import duty on raw materials and components ranges from 40% to 85%. The story does not end here. After paying such high import duties on components, once a machine is made it suffers excise duty of 5% to 10% ( including on the customs duty already paid ). At the time of sale the machine tools suffers further taxation, i.e central sales tax or state sales tax which ranges from 4 to 16%. This much for tax angle.

Another factor which pushes the cost of manufacture of machine tools at a very high rate of interest payable to banks which ranges upto 22%, as against 4% - 7% prevailing in advanced countries. The production of machine tools in India being not of the same scale as it is in other countries, the price which India's machine tools builders have to pay for the components is more or less based on the pattern of high pricing applicable to the prices of spares.

The above represents only a few of the extraneous reasons for the high cost of Indian machines. The machine tool industry in India has an enviable record of very quick technology absorptions, assimilation and development. There are a number of success stories about how machine tool builders were of help at the most critical times.

It will be a pity in fact a tragedy if we allow this industry to die and disappear from the scene. It is to be noted that India is at least 6000 km away from any dependable source of supply of machine tools. The Government of India has always given a great

deal of importance to the development of small scale and medium scale industries. This industry has also performed pretty well.

Today they are in need of help from India's machine tool industry to enable them to produce quality components at reduced costs. Is it anybody's case that the needs of this fragile sector (which needs tender care) will be met from 6000 km away. Then what is it that industry requests from Government. It wants level playing fields.

In fact, all of us must have a deep introspection and recognise the fact that the machine tool industry has a very special place in the country from the point of strategic and vital intersects of the nation. Most important, it requests for the Govt.s consideration and understanding.

**a) According to the passage, assembling imported components into machine proves ultimately**

- A) cheaper than importing complete machine
- B) costlier than importing machine
- C) more cost effective than importing machine
- D) on par with cost of imported machine
- E) a very stupendous and unmanageable task

**b) According to the passage, all the following factors are responsible for high cost of Indian machines except**

- A) higher import duty on spares
- B) excise duty
- C) banks rate on interest on loans for manufacture
- D) high profit margin expected by manufacturers
- E) sales tax

**c) If the banks rate of interest in India is made on par with the advanced countries, the cost of manufacture of machine tools :**

- A) may go up by about 4% to 7%
- B) may increase by about 22%
- C) may decrease by about 4% to 7%
- D) may decrease by about 15% to 18%
- E) will remain the same due to import duty

**d) The availability of Indian machines tool industry's help to small scale industry is most likely to result into**

- A) increase in demand of imported tools
- B) deterioration in quality of component manufactured by them
- C) further increase in custom duty on imported machines
- D) enhancement in quality and quantity of their production at a cheaper cost.
- E) severe competition among the small and medium scale industries.

**e) Which of the following is true in the context of the passage?**

- A) India's machine tool industry has a praise-worthy record of performance
- B) In critical times, the machine tools builders allowed the industry to perish
- C) In the case of machines, the excise duty is levied only on the cost price
- D) India's quantum of production of machine tools is more than that of other advanced countries.
- E) None of these