

TCS NQT Solved Paper - 12th Sept 2021 [Morning Slot]

Numerical Ability

QUESTION 1 The cost of filling a gas tank at a shop is Rs. 800. If the shopkeeper reduces the price by 15%. The number of his customers increases by 30%. By what % did his revenue decrease/increase.?

1. 10.5%
2. 10%
3. 8%
4. 12.5%

Answer: Option A - 10.5%

QUESTION 2: What is the value of $(a + b + c)^2 : (a^3 + b^3 + c^3)$ if $(ab+bc+ca) = 131$, $(a^2 + b^2 + c^2) = 138$ and $abc = 280$.

1. 17:43
2. 20:49
3. 18:41
4. 15:43

Answer: Option B - 20:49

QUESTION 3

If $27^{x+2} = 81^{2x-6}$, find the value of $3x-5$

Options

- A. 13
- B. 19
- C. 16
- D. 10

Answer: Option A - 13

QUESTION 4

Rahl takes a sum of Rs. 2310 as a loan. He has to repay this in two equal annual installments. If the rate of interest is 20% compounded annually, what percent of the principal amount taken by Rahul is the total interest paid by him.

- 1. 20%
- 2. 40.9%
- 3. 130.9%
- 4. 30.9%

Answer: Option D - 30.9%

QUESTION 6:

If the 9 digit number $807x6y9z8$ is divisible by 99, the value of $\sqrt{x+y+z}$

- 1. 6
- 2. $\sqrt{5}$
- 3. 4
- 4. $3\sqrt{3}$

Ans - Option C - 4

QUESTION 7

Two numbers are in the ratio of 3:5 . If 3 is added to the first number and 9 is added to the 2nd number, their ratio becomes 4:7. The sum of the original numbers is.

1. 120
2. 150
3. 105
4. 135

Ans - Option A - 120

Question 8:

What is the mode of the following data?

Class	0-20	20-40	40-60	60-80	80-100
Frequency	13	17	21	5	3

1. 44
2. 42.5
3. 44.2
4. 43

QUESTION 9-

Ankush bought $(x+2)$ apples at the rate of Rs. 12 each. One apple got rotten during transportation and he sold all the remaining apples for Rs. 300. If the percentage profit made by Ankush in the whole transaction is 25%, find the number of apples sold by Ankush.

1. 19

- 2. 15
- 3. 10
- 4. 12

Answer: Option A - 19.

Question 10.

An article is marked 36% above its cost price. A discount of 10% is offered on the marked price. Later on, the article was sold by giving another discount of Rs.12.60. If there is a profit of 15.4%, the marked price (in Rs.) of the article is:

Options

- a. 245
- b. 243
- c. 220.30
- d. 244.80

Answer: Option D

Question 11:

The savings of surekha are equal to 40% of her expenditure. If her income increases by 20% and the expenditure increases by 40%, her savings decreases by:

Options

- a. 20%
- b. 30%
- c. $31\frac{3}{7}\%$
- d. $42\frac{6}{7}\%$

Answer : 10% decrease

QUESTION 12 -

The shopkeeper sold some chairs for Rs. 3240 and made a profit of 20%. What was the profit percentage if he had sold chairs for Rs. 2781?

1. 4.25%
2. 3%
3. 4.5%
4. 3.25%

Ans - Option B - 3%

QUESTION 13 -

If 20% apple from a cart are rotten and the remaining apple are sold at 20% discount the seller gets 92% profit on the cost price of the whole cart by what percent above the cost price Has the seller marked up the apples?

1. 180%
2. 250%
3. 280%
4. 200%

Answer: Option D - 200%

QUESTION 14 -

Out of 80 students 45%, students passed in Mathematics and 60% students passed in English. If 35% students failed in both the subjects, how many students passed in both the subjects?

1. 24
2. 28
3. 32
4. 20

Answer- (option 3)- 32

QUESTION 15 -

50 workers can construct a bridge in 40 days by working 8 hrs per day. But they completed 30 days and completed only half of the work. How many more workers are needed to complete the work on time by working 10 hrs per day.

1. 65
2. 50
3. 60
4. 70

Answer- Option D - 70

QUESTION 16 -

$$\text{if } a + b\sqrt{10} = \frac{\sqrt{\sqrt{10}+1}}{\sqrt{\sqrt{10}-1}} + \sqrt{3+\sqrt{5}} + \sqrt{3-\sqrt{5}}, a + b =$$

- a. $\frac{5}{3}$
- b. 0
- c. 2
- d. 1

Answer - Option C - 2

QUESTION 17 -

Let x,y,z be the median, mode and range respectively of the following data:

13, 30, 17, 10, 52, 44, 50, 7, 9, 10, 25, 19.

What is the value of $(3x+2y-z)$?

- a. 29
- b. 33
- c. 23
- d. 24

QUESTION 18- The ratio of the speed of a bus and a car is 2:5. The car covers a distance of 280 km in some time and the bus covers a distance of "d" km less in the same time. What is the distance covered by the bus?

- A) 112 km
- B) 144 km
- C) 168 km
- D) 132 km

answer-112km

QUESTION 19 - The sum of ₹x amounts to ₹4791.60 at 12% p.a in $2\frac{1}{2}$ years, interest compounded 10-monthly. What is the value of x?

- 1. 3600
- 2. 3200
- 3. 4000
- 4. 3500

QUESTION 20-

If the price of petrol increases by 35% and Rajesh intends to spend only an additional 30% on petrol, by how much % will he reduce the quantity of petrol purchased(approx)

- 1. 11%
- 2. 14%
- 3. 13%

Question 21:

The sum of the present ages of Ajay and his wife Sushma is 82 years. Sushma's present age is 28 years more than Sashank, her son. If Sashank's present age is 12 years, what will be the sum of ages of Sashank and his father after 4 years?

Options

- a. 56 years
- b. 60 Years
- c. 62 years
- d. 58 years

Answer: Option C - 62

Question 22:

The value of $\frac{(0.06)^2 - 0.0024 + (0.04)^2}{(0.04)^3 + (0.06)^2} + \frac{(7.5)^3 + (4.5)^3}{(7.5)^2 - (4.5)^2}$ is :

- a. 24.25
- b. 23.75
- c. 24.5
- d. 23.25

Answer -

Question 23:

A sum amount to Rs. 16,000 at the end of three years and to Rs. 25,600 at the end of six years under compound interest being compounded annually. Find the simple interest earned if same sum is invested at 15% p.a for two years.

- A) 4,000
- B) 4,500
- C) 3,000

D) 3,500

Answer: Option C

Question 24:

The table below shows the total number of 10th class students in 5 different schools (P,Q,R,S and T). and the ratio of the number of students Art, Commerce and Science respectively. The students study only the above given subjects in the class of each school.

School	TOTAL STUDENTS	Arts: Commerce:Science
P	240	1:2:3
Q	450	7:1:1
R	360	5:4:3
S	180	2:5:3
T	330	6:4:1

What is the total number of science students in school P, Q and R together?

1. 240
2. 220
3. 290
4. 260

Question 25:

$$\frac{\left(3\frac{1}{5} + 4\frac{1}{2} \text{ of } 5\frac{1}{3}\right) \times 3\frac{3}{4} - 3\frac{3}{4} + \frac{3}{8} + 3\frac{1}{2}}{3\frac{1}{3} \div \frac{3}{8} \text{ of } 1\frac{1}{9} - \frac{2}{5} \times \frac{5}{6}}$$

The value of

- a) 111/184
- b) 93/92
- c) 111/168
- d) 15/184

Question 26: The ratio of 25% of x to 65% of y to 70% of z is 5:26:15. If one sixteenth of their sum(x,y and z) is equal to 10. What is the value of X-2Y+3z?

- A) -20
- B) -10
- C) 10
- D) 0

Answer: Option D - 0

Question 27:

A boat travels 12 km downstream and 6 km upstream in 3 hours. The same boat takes fifty percent extra time to cover 10 km downstream and 16 km upstream. If the same boat travels 20 km downstream and z km upstream in 4 hours find z.

- 1. 9km
- 2. 7.5km
- 3. 8km
- 4. 4.5km

Ans - Option D - 4.5km

Question 28:

Find the difference between arithmetic mean and the median of first seven consecutive natural numbers

- 1. 2
- 2. 0
- 3. 3.5

4. 1

Answer-> (option 2)-0

Question 29:

An article is sold at a certain price. If it is sold at 72% of this selling price, there is a loss of 20%. What is the profit percentage when it was sold at actual selling price?

Options

- a. 20%
- b. $11\frac{1}{9}\%$
- c. $12\frac{2}{9}\%$
- d. 12%

Answer: Option B - $11\frac{1}{9}\%$

Question 30:

Disha and Patni entered into a partnership. Disha invested as much money as earned by Patni as a share from the profit. If this profit was Rs. 18000 and the money invested by Disha was Rs. 3000 more than Patni, what is the investment made by Disha if it is less than Rs. 5,000

- 1. Rs.7500
- 2. Rs.6000
- 3. Rs.5500
- 4. Rs 4500

Question 31:

Which of the following can be the range of the values of the median for the series 5,11,8,3,25,x,14,23,4,25,6,9,15,29

1. [14,15]
2. [11,14]
3. [23,25]
4. [9,11]

Question 32:

The speed of a train is 72km/hr. It crosses a pole in 14 sec. The train will cross a tunnel of length 400m in(sec)?

1. 34
2. 42
3. 40
4. 35

Ans - Option - A - 34

Question 33:

The value of $\sqrt[3]{2^4 \sqrt{2^{-5}} \sqrt{2^6}}$ is:

1. $2^{4/3}$
2. $2^{1/3}$
3. 1
4. 2

Ans - Option D - 2

Question 34:

Mani deposited some money in a bank and got an interest of Rs. 560 and Rs. 600 in 3rd and 4th year respectively. What is the rate of interest offered by the bank?

- a. 7.14%
- b. 5.14%
- c. 6.25%
- d. 8.33%

Answer - (option a) 7.14

Question 35

Aman, Barun and Charu enter into a partnership with an investment of rs. 40000, rs. X and rs. 100000 respectively. At the end of the year Barun withdrew Rs. 10000 and Aman added Rs. 40000. The ratio of their profit after 2 years was 6:3:10 respectively. Find the initial amount invested by Barun.

1. Rs. 40000
2. Rs. 50000
3. Rs. 35000
4. Rs. 60000

answer-(option c) 35000

Question 36:

A person borrowed some money on compound interest and returned it in two years in equal annual installments of Rs.26450. If the rate of interest is 15% p.a., compounded yearly, the sum (in Rupees) borrowed was:

1. 41280
2. 43430
3. 43000
4. 44720

Answer: Option C - 43000

Question 37: The total surface area of sphere of radius r cm is equal to the total surface area of cube of side s cm. Then which of the following is true?

- A) Either a or b
- B) $r=s$
- C) $r<s$
- D) $r>s$

Answer: Option C - $r<s$

Question 38:

What is the median of the following data which shows the marks obtained by 40 students

marks	10	24	30	45	17	18
Number of students	5	4	13	3	7	8

1. 25
2. 30
3. 20
4. 21

Answer: Option B - 30

Question 40:

Saurabh has coins of Rs.5, Rs. 10, Rs. 20 whose total value is Rs. 460. The number of 20 rupee coin is 50% more than the number of 10 rupee coins. And the number of 5 rupee coins is 20% more than 10 rupee coins. Find the number of 20 rupee coins?

- A) 15
- B) 10
- C) 12
- D) 14

Answer: Option A -15

Question 41:

Water and Milk are mixed in an empty container in the ratio of 4:19. 115 liters of mixture is taken out from the container and 25 more liters of milk is added in the container. After adding 25 liters of milk, the amount of the mixture is 600 liters. Find the amount of mixture initially mixed by the container.

1. 636 litres

- 2. 576 liters
- 3. 690 liters
- 4. 642 liters

Answer- (option 3)690

Question 42: A conical vessel of 6 cm radius and 28.8 cm height is fully filled with water. The water is poured into an empty cylindrical vessel of inner radius 9 cm. What is the height (in cm) of water in the cylindrical vessel ?

- A) 4.27
- B) 5.14
- C) 5.24
- D) 4.45

Question 43: A,B and C, together can complete work in 16 days. If A and B together can complete the work in 24 days, in how many days C alone can complete 75% of the work?

- A) 30 days
- B) 36 days
- C) 48 days
- D) 40 days

Answer: Option B - 36 days

Question 44: If the arithmetic mean and geometric mean of two numbers in 75 and 60 respectively. The ratio of harmonic mean to geometric mean to the number is?

- A) 4:5
- B) 3:5
- C) 5:3
- D) 5:7

Answer: Option A - 4:5

Question 45: Solutions A and B contain acid and water in the ratio of 5: 6 and 7: 4 respectively. A and B are mixed in the ratio of 3: 5. In 352mL of this solution, how much water (in ml) should be added to make it a solution containing acid and water in the ratio of 10:9?

1. 28
2. 35
3. 32
4. 30

Answer: Option A - 28

Question 46:

In a business, A,B and C invest their capitals in the ratio of 4:5:8. The ratio of months for which they invested their capital is 3:2:4. If C gets a share of profit which is Rs5280 more than that of B, what is A's share in the profit?

- A. Rs.3840
- B. Rs.2880
- C. Rs.1440
- D. Rs.2400

Answer: Option B - Rs. 2880

Question 47: Find the geometric mean of the data 5,75,9

- A) 45
- B) 5
- C) 15
- D) 9

Answer: Option C - 15

Question 48:For doing a certain work the efficiency of A, B and C are in ratio 3:7:5. Working together they can complete the work in 21 days . B alone can complete the original work in:

- A.30
- B.45
- C.42
- D. 28

Answer- (option b)45

Question 49: The height and the radius of a cylinder vessel are in the ratio of 7: 3. The five-eleventh part of the vessel is full of 2.43 litres of water. What is the curved surface area of the vessel?

- A. 1188 sq.cm
- B. 1326 sq.cm
- C. 1292 sq.cm
- D. 1248 sq.cm

Question 50: Rahul and Sachin can complete work in 60 days and 45 days respectively .Rahul starts working with 120% of his capacity .In how many days will they complete 75% of the work if they work together?

- A. 19.85
- B. 17.64
- C. 25.71
- D. 16.24

Answer- option(b) 17.64

Verbal Ability

Question 1: Some part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No Error'.

The new computation algorithm combines scores with multiple measures of quantitative assessment

- a. The new computation algorithm combines
- b. scores with multiple measures
- c. No error
- d. of quantitative assessment

Answer - C

Question 2: Select the most appropriate option to fill in the blanks:

Children were quite sad when they did not see butterflies flitting_____the flowers

Options

- a. In
- b. With
- c. Among
- d. Between

Answer - In

Question 3: Select the most appropriate option

We have found that between Vinaya and Akruti, Vinaya makes_____errors in her work

- a. Largest
- b. Smallest
- c. Shortest

- d. Fewer

Answer - D

Question 4:

One part of the sentence below may contain an error. Identify the error or choose “No Error”

All the students of the class decided to head to the principal’s office to complain for the new teacher’s misconduct

- a. to head to the principal’s office
- b. All the students of the class decided
- c. to complain for the new teacher’s misconduct
- d. No error

Answer - C

Question 5:

Read the following passage and fill in the blanks by selecting the most appropriate option

Sailing is fun. But it takes work and muscles to keep the sailboat moving. One will have to constantly 1._____the weather and adjust the sails to turn the boat in the required direction. It also takes a lot of 2._____to raise the mast and sails before you start enjoying the freedom of exploring new places in your sailboat.

Blank 1: A.search B. scrutinise C. check D. scan

Blank 2. A.attempt B.effort C.strive D.endeavour

- A. (1)-C, (2)-D
- B. (1)-B, (2)-C
- C. (1)-C,(2)-B

Answer:

Question 6: One part of the sentence below may contain an error. Identify the error or choose “No Error”

Mrs. Diggle wanted her children to be hardworking, sincere and punctual

- a. sincere and punctual
- b. Mrs. Diggle wanted her
- c. No error
- d. children to be hardworking,

Answer -no error

Question 7: One part of the sentence below may contain an error. Identify the error or choose “No Error”

He had been married with a doctor for five years

Options

- a. For five years
- b. He had been married
- c. No Error
- d. With a doctor

Answer: d (married to a doctor)

Question 8: Select the most appropriate option to fill in the blanks:

Shreya will keep working for you_____you are respectful towards her.

Options

- a. For
- b. As long
- c. As long as
- d. As soon as

Answer - as long as

Question 9: One part of the sentence below may contain an error. Identify the error or choose “No Error”

The children are quick to grasp, isn't it?

- a. No error
- b. Isn't it?
- c. The children are
- d. Quick to grasp

Answer - B (aren't they instead of isn't it)

Question 10: Some sentences are missing from the given text. Choose from the list (A-C) the most appropriate sentence for each gap (1-2) in the text. There is one extra sentence that you do not need to use.

Albert Einstein always had a clear view of the problems of physics. 1._____.
He had a strategy of his own and was able to visualize the main stages on the way to his goal.
2._____. He received the Nobel Prize in physics in 1921.

- a. In 1919, Einstein and his wife, Mileva maric, were divorced
- b. He also had the determination to solve them
- c. Einstein regarded his major achievements as mere stepping stones for the next achievement

Options

- a. (1)-B, (2)-C
- b. (1)-A, (2)-B
- c. (1)-C, (2)-B
- d. (1)-B, (2)-A

Answer: A

Question 11:

For the four sentences (S1 and S4) paragraph below, sentences S1 and S4 are given. From the options P, Q, and R, choose the appropriate sentences for S2 and S3 respectively.

S1: Ginger is a commonly consumed aromatic spice which contains a bioactive compound called gingerol

S2:

S3:

S4: But some people complain of bloating and heartburn when they have consumed high doses of ginger

P: It is known to calm nausea and enhance the immune system

Q: Ginger belongs to the zingiberaceae family, which includes cardamom and turmeric

R: Gingerol has strong anti-inflammatory and antioxidative effects

- a. PQ

- b. RQ
- c. QR
- d. RP

Answer - RP

Question 12:

For the four sentences (S1 and S4) paragraph below, sentences S1 and S4 are given. From the options P, Q, and R, choose the appropriate sentences for S2 and S3 respectively.

S1: My mother had been overweight since she was a child and lost weight only after she got married.

S2:

S3:

S4: There were no use crying to my grandmother as she was now absolved of her responsibilities

P: She started giving me lectures on the importance of meditation and breathing exercises.

Q: My food was regulated - she decided when, what and how much.

R: Her memory of overcoming severe problems of obesity kicked in and soon my weight and health became her obsession.

- a. RP
- b. QR
- c. PR
- d. RQ

Answer - RQ

Question 13: You are going to read Civilization. Choose from the list (A-C) the most appropriate sentence for each gap (1-2) in the text. There is one extra sentence that you do not need to use.

Civilisation's progress must be measured in proportion to man's success in meeting the challenges of nature. 1._____. It is once a threat to the sustainable evolution of man. 2._____. But if the current trend continues going on unchecked, the future of life on earth will be endangered.

- a. But the advancement in Science and Technology is, undoubtedly a mixed blessing
- b. There has been an increase in the people's awareness of the consequences of such progress
- c. We are bringing out industrial progress to make the world a better and more comfortable place to live in

Options

- a. (1)- B, (2)- A
- b. (1)- A, (2)- C
- c. (1)- C, (2)- A
- d. (1)- A, (2)- B

Answer - CA

Question 14:

Read the following passage and fill in the blanks by selecting the most appropriate option

Mamallapuram, also called Mahabalipuram, is about fifty-five kilometres from the city of Chennai. The East Coast Road takes you to this 1_____ (missing) which is on the shore of the Bay of Bengal. This 7th century city which was once a 2._____ seaport is now famous for its rock-cut shore temples.

Blank 1. A. consequential B. mementitious C.historic D.fateful

Blank 2. A.frantic B. stuffed C.swamped D.busy

A. (1)-B,(2)-C

B. (1)-A,(2)-A

C. (1)-A,(2)-B

D. (1)-C,(2)-D

Answer - CD

Question 15:

One part of the sentence below may contain an error. Identify the error or choose “No Error”

One of the unreturned book was found in the parking lot.

- a. the unreturned book
- b. No error
- c. was found in the parking lot.
- d. One of

Answer - A

Question 16:

One part of the sentence below may contain an error. Identify the error or choose “No Error”

The soldiers, in an attempt of showing their loyalty towards their king,fought ruthlessly until the end of the war

- A. The soldiers, in an attempt of showing
- B. fought ruthlessly until the end of the war
- C. their loyalty towards their king
- D. No error

Answer - A

Question 17:

The following sentence pair can be combined into one better sentence. Choose the option that contains the two sentences without changing the meaning:

My mother made me join seven different sports activities. At the time, I was just nine

- a. My mother made me join seven different sports activities when I was just nine
- b. Because I was nine, my mother made me join seven different sports activities
- c. While I was nine my mother made me join seven different sports activities
- d. Though I was 9, my mother made me join seven different sports activities

Answer - A

Question 18: Find the wrong term in the letter-cluster series given below.

DRTO, JXZU, GUWR, MAOX, JXZU

- a. JXZU
- b. JXUZ
- c. MAOX
- d. GUWR

ANSWER: B

Question 19: For the four sentences (S1 and S4) paragraph below, sentences S1 and S4 are given. From the options P, Q, and R, choose the appropriate sentences for S2 and S3 respectively.

S1: In the early years, when long trade voyages were undertaken that would take months or maybe even a year to reach the destination, coconuts were granted a special place on board.

S2:

S3:

S4: Its popularity has recently increased although they were grown in tropical regions for more than 4,500 years

P. By and large, the coconut water was drunk and pulp was eaten.

Q. The best part of the fruit was that there were no chances of it going bad

R. The voyages were rife with difficulties and hardships

Options

- a. RQ
- b. RP
- c. QP
- d. PQ

Answer - PQ

Question 20:

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub question you must click 'SAVE AND NEXT' button to move to the next sub question.

The Royal Bengal tiger is one of the majestic creatures of the world. The typical male weighs about 300 kilograms and is about 8 to 10 feet tall, whereas the female weighs around 180

kilograms and is 8 to 9 feet in height. Despite its heavy body, this tiger can run at a speed of 60 kilometers per hour and also climb trees for its prey when necessary. The mangroves of Sunderbans being its habitat, the royal Bengal tiger is a great swimmer too!

The night vision of this tiger is six times that of humans and hearing is five times that of humans. Just like human fingerprints, each tiger has a unique pattern of stripes that does not match any other tiger's. The tiger does not forget faces, its memory is stronger than most animals in the wild. Often portrayed as savage, this tiger is caring and protective towards its family. When a killing happens, the male tiger eats after the females and children have had their feast. Unlike humans, this endangered species of India loves to live in a companionless environment.

1. Why is it surprising that Royal Bengal tigers can run fast and climb trees?
 - A. Because they are majestic
 - B. Because they weigh 200-300 kilograms
 - C. Because they live in secluded mangroves
 - D. Because they are at least 8 feet tall.

Answer: B

Question 22: Which of the following sentences uses formal languages?

- a. Liven up the atmosphere, my friend!
- b. Hurray! We won the game
- c. May I suggest you better option that will suit your style more
- d. Stop making excuses of your behaviour

Answer: C

Question 23: The following sentences can be revised into one better sentence. Choose the sentence that is the best revision.

Grizzly bears are fierce animals. Polar bears are no less fierce

Options

- a. Grizzly bears and polar bears are fierce animals
- b. Grizzly bears are fierce animals as just as same as polar bears
- c. Grizzly bears are as fierce as polar bears
- d. Grizzly bears are fierce animals like polar bears.

Answer: C

Question 24:

Choose from the list (A-C) the most appropriate sentence for each gap (1-2) in the text. There is one extra sentence that you do not need to use.

In the last few years, we have seen the prime minister meet and greet school children after delivering his independence day speech. 1_____ In the very year that the pandemic has rescinded, their invitation to the Fort, children have to be heard more than ever before 2_____ India is looking at the generational catastrophe.

- A. This year however the interaction between the prime minister and school children could not happen
- B. This year also the PM ignored all safety protocols to meet the youth
- C. The year has seen their suffering ranging from climbing anxiety level to be heartbreaking academic setbacks

Options

- A. (1)-B,(2)A
- B. (1)-C,(2)B
- C. (1)-C,(2)C

D. (1)-A,(2)C

Answer - AC

Question 25. You are going to read a text about transformation of self. Some sentences are missing from the text. Choose from the list (A-C) the most appropriate sentence for each gap (1-2) in the text. There is one extra sentence that you do not need to use.

Transformation is usually painful because it involves a process, a means to find an end.

1._____. In pain is our true enlightenment as our crucial lessons are learnt here. 2._____. For humans, evolution is painfully slow as it takes the longest to learn.

- A. Attainment, on the other hand, is happiness because you gained what you wanted
- B. Without process, however there is no achievement, so there is no gain without pain.
- C. How long the process continues will depend on how fast we learn our lessons

Options

- a. (1)-B, (2)-C
- b. (1)-A, (2)-B
- c. (1)-C, (2)-B
- d. (1)-A, (2)-C

Answer - BC

Question 26:

The following sentences can be revised into one better sentence. Choose the sentence that is the best revision.

Mark Twain is the author of Huckleberry Finn. Huckleberry Finn is a classic American novel.

Options

- a. Mark Twain is the author of the classic American novel Huckleberry Finn.
- b. Mark Twain is the author of Huckleberry Finn, which is a classical American novel.
- c. Mark Twain is an author of Huckleberry Finn and it is a classic American novel.
- d. Huckleberry Finn is a classic American novel. For which Mark Twain is the author

Answer: A

Question 27:

For the four-sentence (S1 to S4) paragraph below, sentences S1 to S4 are given. From the options P,Q and R, choose the appropriate sentences for S2 and S3 respectively.

S1. Meeting rooms are often visited by employees,clients and other visitors who exchange handshakes and use the equipment therein.

S2.

S3.

S4. This will help safeguard their hands against germs, thereby stopping the spread of illness.

P. So, a hand-sanitising station may be placed near the door at the table and the visitor should be encouraged to use it.

Q. This causes transfer of germs

R. Most hand sanitisers contain either ethyl alcohol or isopropyl alcohol.

Options

- a. RP
- b. PR
- c. PQ
- d. QP

Answer: D

Question 28.

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub question you must click the 'SAVE AND NEXT' button to move to the next sub question.

For decades, Western culture has been reluctant to assign an inherent value or a purpose to art--even as it continues to hold art in high esteem. Though we no longer seem comfortable saying so, our reverence for art must be founded on a timeless premise; that art is good for us. If we don't believe this, then our commitment in money, time and study--makes little sense. In what way might art be good for us?The answer, I believe, is that art is a therapeutic instrument. Its value lies in its capacity to exhort, console and guide us toward better versions of ourselves and to help us live more flourishing lives individually and collectively.

Resistance to such a notion is understandable today, since 'therapy' has become associated with questionable, or at least unavailing methods of improving mental health. To say that art is therapeutic is not to suggest that it shares therapy's methods but rather its underlying ambition. To help us to cope better with existence. While several predominant ways of thinking about art appear to ignore or reject the goal, their ultimate claim is therapeutic as well.

Art capacity to shock remains for some a strong source of some of its contemporary appeal. We are conscious that individually and collectively, we may grow complacent; art can be valuable when it disrupts or astonishes us. We are particularly in danger of forgetting the artificiality of certain norms. It was once taken for granted, for instance, that women should not be allowed to vote and that the study of ancient Greek should dominate the curricula of English schools. It's easy now to see that those arrangements were far from inevitable, they were open to change and improvement.

When Sebastian Errazuriz created dollar signs out of ordinary street markings in Manhattan, his idea was to jolt passers-by into a radical reconsideration of the role of Money in daily life- to shake us out of our unthinking devotion to commerce.

Question: The title that best suits for the passage is:

Options:

- a. Art: No longer Therapeutic
- b. Art is Art
- c. Define Art
- d. What is Art for?

Answer - D

Question 29.

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub question you must click the 'SAVE AND NEXT' button to move to the next sub question.

For decades, Western culture has been reluctant to assign an inherent value or a purpose to art--even as it continues to hold art in high esteem. Though we no longer seem comfortable saying so, our reverence for art must be founded on a timeless premise; that art is good for us. If we don't believe this, then our commitment in money, time and study--makes little sense. In what way might art be good for us?The answer, I believe, is that art is a therapeutic instrument. Its value lies in its capacity to exhort, console and guide us toward better versions of ourselves and to help us live more flourishing lives individually and collectively.

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When Sebastian Errazuirz created dollar signs out of ordinary street markings in Manhattan, his idea was to jolt passers-by into a radical reconsideration of the role of Money in daily life- to shake us out of our unthinking devotion to commerce.

Question:According to Author, Art is:

Options:

- a. To be described as timeless
- b. To be held in high esteem
- c. A commercial pursuit
- d. A therapeutic instrument

Answer - D

Question 30:

For the four-sentence (S1 to S4) paragraph below, sentences S1 to S4 are given. From the options P,Q and R, choose the appropriate sentences for S2 and S3 respectively.

S1. Using data analytics has helped companies identify trends and purchase patterns at various levels and helped customise various styles.

S2.

S3.

S4. It is correct to say that many business owners will have a lot on their minds post lockdown and till the pandemic dies down.

P. Data Analytics utilizes powerful algorithms to analyse current and past customer data to come up with solutions.

Q. They have adapted to digitalization and have customized their products in line with current trends.

R. Low cost of implementing data analytics driven software is an added advantage.

Options

- a. PR
- b. QP
- c. QR
- d. RQ

Answer: PR

Question 31:

One part of the sentence below may contain an error. Identify the part, if there is no error select No error.

As little pieces of debris and space-dust burn up in Earth's atmosphere, it causes spectacular shooting stars.

Options

- a. No error
- b. As little pieces of debris and space-dust
- c. burn up in Earth's atmosphere,
- d. It causes spectacular shooting stars.

Answer:

No Error

Question 32. Some sentences are missing from the text. Choose from the list (A-C) the most appropriate sentence for each gap (1-2) in the text. There is one extra sentence that you do not need to use.

An eclipse takes place when a heavenly body, such as the Moon or the Earth moves into the shadow of the other. 1. _____ . A solar eclipse occurs when there is shadow on Earth by partially or fully blocking the sunlight.

2. _____. The maximum number of Solar eclipses that can occur in a year is 5.

- A. It is believed that local animals sleep during an eclipse
- B. There are two types of eclipses on Earth, the solar eclipse and Lunar eclipse
- C. Every year, at least two solar eclipses occur somewhere on earth

Options

- a. (1)-C, (2)- A
- b. (1)-C, (2)- B
- c. (1)-B, (2)- C
- d. (1)-A, (2)- C

Answer - B C

Question 33.

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub question you must click the 'SAVE AND NEXT' button to move to the next sub question.

Several Companies have announced that they plan to continue the option of Working from home after the Pandemic. The reasons being greater flexibility in balancing work and family

life and higher productivity due to time saved in commute to the workplace. For employers, this is a cost-effective option as the travel expenses are low and there is less need for office space. It is also believed that a home-officer has fewer distractions, thereby making the employee more efficient.

On the contrary, it is observed that some employees may not be able to thrive in physically isolated environments as they need social interaction to keep up their motivation.

While working from home-office provides increased flexibility for the work situation, it could provide less flexibility in terms of collaborative work. There is a greater need for structure, planning and clear communication in digital mode. Meetings need to be planned in detail. The digital modality does have a few restrictions especially pertaining to communication- related aspects of working. In the digital mode, making spontaneous and necessary changes related to processes or projects proves to be quite challenging.

The subtle, yet signifying, drawback of working exclusively is the inability to pick up cues from the body language of colleagues, like we would, when we are in physical space together.

Question: What are the advantages for employers in a work-from-home duration?

Options

- a. Lesser work hours of employers
- b. Lesser social interaction for employees
- c. Fewer meetings with employees
- d. Reduced costs of travel and office space.

Answer: Option D

Question 34.

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub question you must click the 'SAVE AND NEXT' button to move to the next sub question.

Several Companies have announced that they plan to continue the option of Working from home after the Pandemic. The reasons being greater flexibility in balancing work and family life and higher productivity due to time saved in commute to the workplace. For employers, this is a cost-effective option as the travel expenses are low and there is less need for office space. It is also believed that a home-officer has fewer distractions, thereby making the employee more efficient.

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The subtle, yet significating, drawback of working exclusively is the inability to pick up cues from the body language of colleagues, like we would, when we are in physical space together.

Question: What is the need for collaborative work in work-from-home situations?

Options

- a. Work-Life balance and clear communication
- b. Flexibility and physically isolated environment
- c. Structure, planning and clear communication
- d. Efficiency and physically isolated environment

Answer: Option C

Question 35.

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub question you must click the 'SAVE AND NEXT' button to move to the next sub question.

Several Companies have announced that they plan to continue the option of Working from home after the Pandemic. The reasons being greater flexibility in balancing work and family life and higher productivity due to time saved in commute to the workplace. For employers, this is a cost-effective option as the travel expenses are low and there is less need for office space. It is also believed that a home-officer has fewer distractions, thereby making the employee more efficient.

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The subtle, yet significating, drawback of working exclusively is the inability to pick up cues from the body language of colleagues, like we would, when we are in physical space together.

What is the main idea the author wishes to convey through the passage?

- a. Working from home is an advantage and a disadvantage to employees
- b. Working from home is an advantage to both employers and employees
- c. Working from is a disadvantage to both employers and employees

- d. Working from home is an advantage and a disadvantage to both employers and employees

Answer - D

Question 36.

The following sentences can be revised into one better sentence. Choose the sentence that is the best revision.

Aniruddh has been playing the tabla throughout the day. This explains the pain in his fingers.

Options:

- a. The pain in his fingers explains that he has been playing the tabla throughout the day.
- b. Aniruddh has been playing the tabla throughout the day so he can't explain the pain in his fingers.
- c. Aniruddh was playing the tabla all day long so he can get pain in his fingers.
- d. Aniruddh has been playing the tabla all day long which explains the pain in his fingers.

Answer - D

Question 37.

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub question you must click the 'SAVE AND NEXT' button to move to the next sub question.

Mental health can affect daily living, relationships, and physical health. Factors in people's lives, interpersonal connections, and biological factors can all contribute to mental health

disruptions. Looking after mental health can preserve a person's ability to enjoy life. Doing this involves reaching a balance between life activities, responsibilities, and efforts to achieve psychological resilience. Conditions such as stress, depression, and anxiety can all affect mental health and disrupt a person's routine. Although mental health is in everyday use, many conditions that doctors recognise as psychological disorders have physical roots.

Mental health is about not only avoiding active conditions but also looking after ongoing wellness and happiness. Preserving and restoring mental health is crucial on an individual basis, as well as throughout different communities and societies the world over. In the United States, the National Alliance on Mental Illness estimates that almost 1 in 5 adults experience mental health problems each year.

According to the National Institute of Mental Health (NIMH), in 2017, an estimated 11.2 million adults in the U.S., or about 4.5% of adults, had a severe psychological condition. Everyone has some risk of developing a mental health disorder, no matter their age, sex, income, or ethnicity. In the U.S. and much of the developed world, mental disorders are one of the leading causes of disability. Social and financial circumstances, biological factors, and lifestyle choices can all shape a person's mental health. A large proportion of people with a mental health disorder have more than one condition at a time. It is important to note that good mental health depends on a delicate balance of factors and that several elements of life and the world at large can work together to contribute to disorders.

Question: What is understood by “mental health disruptions” from the above paragraph?

- a. Extreme illness of the mind and body
- b. of the brain
- c. Abnormal functioning of the mind
- d. Lack of coordination between the brain and the other parts of the body

Answer - B

Question 38:

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub-question you must click the 'SAVE AND NEXT' button to move to the next sub-question.

Mental health can affect daily living, relationships, and physical health. Factors in people's lives, interpersonal connections, and biological factors can all contribute to mental health disruptions. Looking after mental health can preserve a person's ability to enjoy life. Doing this involves reaching a balance between life activities, responsibilities, and efforts to achieve psychological resilience. Conditions such as stress, depression, and anxiety can all affect mental health and disrupt a person's routine. Although mental health is in everyday use, many conditions that doctors recognize as psychological disorders have physical roots.

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According to the paragraph, which of the statements is NOT true?

- a. Mental health is about not only avoiding active conditions but also looking after ongoing wellness and happiness
- b. Social and financial circumstances, biological factors, and lifestyle choices cannot shape a person's mental health
- c. Preserving and restoring mental health is crucial on an individual basis, as well as throughout different communities and societies the world over
- d. Mental health involves reaching a balance between life activities, responsibilities, and efforts to achieve psychological resilience.

Answer - B

Question 39:

For the four-sentence (S1 to S4) paragraph below, sentences S1 to S4 are given. From the options P,Q and R, choose the appropriate sentences for S2 and S3 respectively.

S1. Using data analytics has helped companies identify trends and purchase patterns at various levels and helped customise various styles.

S2.

S3.

S4. It is correct to say that many business owners will have a lot on their minds post lockdown and till the pandemic dies down.

P. Data Analytics utilizes powerful algorithms to analyse current and past customer data to come up with solutions.

Q. They have adapted to digitalization and have customized their products in line with current trends.

R. Low cost of implementing data analytics driven software is an added advantage.

Options

- a. PR
- b. QP
- c. QR
- d. RQ

Answer: PR

Question 40. Some sentences are missing from the text. Choose from the list (A-C) the most appropriate sentence for each gap (1-2) in the text. There is one extra sentence that you do not need to use.

An eclipse takes place when a heavenly body, such as the Moon or the Earth moves into the shadow of the other. 1. _____ . A solar eclipse occurs when

there is shadow on Earth by partially or fully blocking the sunlight.

2. _____. The maximum number of Solar eclipses that can occur in a year is 5.

- A. It is believed that local animals sleep during an eclipse
- B. There are two types of eclipses on Earth, the solar eclipse and Lunar eclipse
- C. Every year, at least two solar eclipses occur somewhere on earth

Options

- a. (1)-C, (2)- A
- b. (1)-C, (2)- B
- c. (1)-B, (2)- C
- d. (1)-A, (2)- C

Answer - B C

Question 41.

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub-question you must click the 'SAVE AND NEXT' button to move to the next sub-question.

Several companies have announced that they plan to continue the option of working from home after the Pandemic. The reasons being greater flexibility in balancing work and family life and higher productivity due to time saved in commute to the workplace. For employers, this is a cost-effective option as the travel expenses are low and there is less need for office space. It is also believed that a home officer has fewer distractions, thereby making the employee more efficient.

On the contrary, it is observed that some employees may not be able to thrive in physically isolated environments as they need social interaction to keep up their motivation.

While working from home office provides increased flexibility for the work situation, it could provide less flexibility in terms of collaborative work. There is a greater need for structure, planning, and clear communication in digital mode. Meetings need to be planned in detail. The digital modality does have a few restrictions especially pertaining to communication-related aspects of working. In the digital mode, making spontaneous and necessary changes related to processes or projects proves to be quite challenging.

The subtle, yet significant, drawback of working exclusively is the inability to pick up cues from the body language of colleagues like we would when we are in physical space together.

Question: What are the advantages for employers in a work-from-home duration?

Options

- a. Lesser work hours of employers
- b. Lesser social interaction for employees
- c. Fewer meetings with employees
- d. Reduced costs of travel and office space.

Answer: Option D

Question 42.

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub-question you must click the 'SAVE AND NEXT' button to move to the next sub-question.

Several companies have announced that they plan to continue the option of working from home after the Pandemic. The reasons being greater flexibility in balancing work and family life and higher productivity due to time saved in commute to the workplace. For employers, this is a cost-effective option as the travel expenses are low and there is less need for office space. It is also believed that a home officer has fewer distractions, thereby making the employee more efficient.

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Question: What is the need for collaborative work in work-from-home situations?

Options

- a. Work-Life balance and clear communication
- b. Flexibility and physically isolated environment
- c. Structure, planning and clear communication
- d. Efficiency and physically isolated environment

Answer: Option C

Question 43.

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub question you must click the 'SAVE AND NEXT' button to move to the next sub-question.

Several companies have announced that they plan to continue the option of Working from home after the Pandemic. The reasons being greater flexibility in balancing work and family life and higher productivity due to time saved in commute to the workplace. For employers,

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What is the main idea the author wishes to convey through the passage?

- a. Working from home is an advantage and a disadvantage to employees
- b. Working from home is an advantage to both employers and employees
- c. Working from is a disadvantage to both employers and employees
- d. Working from home is an advantage and a disadvantage to both employers and employees

Answer - D

Question 44.

The following sentences can be revised into one better sentence. Choose the sentence that is the best revision.

Aniruddh has been playing the tabla throughout the day. This explains the pain in his fingers.

Options:

- a. The pain in his fingers explains that he has been playing the tabla throughout the day.
- b. Aniruddh has been playing the tabla throughout the day so he can't explain the pain in his fingers.
- c. Aniruddh was playing the tabla all day long so he can get pain in his fingers.
- d. Aniruddh has been playing the tabla all day long which explains the pain in his fingers.

Answer - D

Question 45:

Read the following passage and answer the questions.

NOTE: After selecting your response to the sub question you must click the 'SAVE AND NEXT' button to move to the next sub question.

Mental health can affect daily living, relationships, and physical health. Factors in people's lives, interpersonal connections, and biological factors can all contribute to mental health disruptions. Looking after mental health can preserve a person's ability to enjoy life. Doing this involves reaching a balance between life activities, responsibilities, and efforts to achieve psychological resilience. Conditions such as stress, depression, and anxiety can all

affect mental health and disrupt a person's routine. Although mental health is in everyday use, many conditions that doctors recognise as psychological disorders have physical roots.

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What do you mean by the sentence, 'Mental health is about not only avoiding active conditions but also looking after ongoing wellness and happiness'?

- a. Mental health care is about treatment of active mental disruptions as well as general mental well-being
- b. Mental health care is about looking after ongoing wellness and happiness on a day-to-day basis
- c. Mental health care is not about taking care of mental disruptions but bodily diseases
- d. Mental health care is about avoiding active mental disruptions only

Answer - A

Reasoning Ability

Question 1:

Find the wrong term in the letter cluster series given below:

In DRTO, JXZU, GUWR, MAOX, JXZU

- a. JXUZ
- b. JXZU
- c. MAOX
- d. GUWR

Ans - Option C - MAOX

Question 2:

The two terms in the pair of letter clusters given below are related in a particular way. (Part not visible)

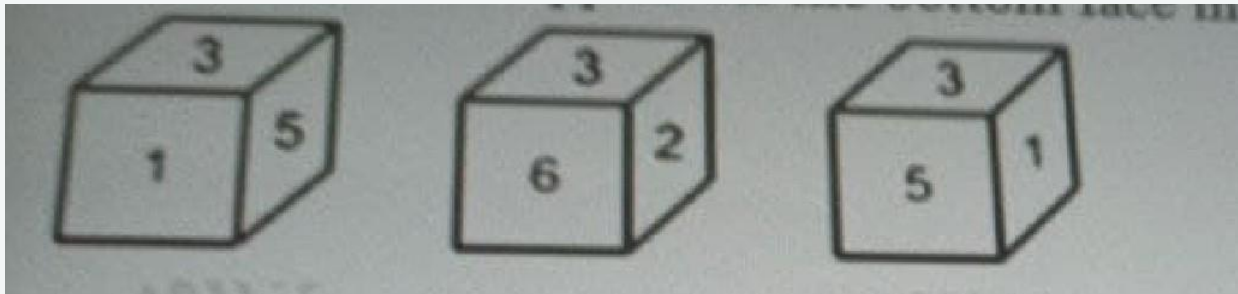
EHK: OXG

- a. MPS: DFO
- b. SVY: KPT
- c. STP: KYF
- d. JMP: DMV

Ans - Option -

Question 3:

Which digit will appear on the bottom face in 3 positions of the same dice?.



- a. 4, 5, 6
- b. 2, 2, 2
- c. 4, 4, 4
- d. 2, 3, 2

Answer:

Question 4:-

In each of the five pairs of letter-clusters, the letter in the second term are a rearranged/transformed form of the letters has been put together in a particular pattern. In which two pairs, has the transformation been done in the same way?

- A. PLANT: PLZMG
 - B. MANGO: MAMTL
 - C. BLACK: BLBDP
 - D. TABLE: ATLBE
 - E. CHEER: HCREE
- a. D and A
 - b. C and D
 - c. B and C
 - d. A and B

Ans - D - A and B

Question 5:

Statements:

Some drills are drugs

No drug is a dam

No drill is a laker

Conclusions:

I. Some lakers are drugs

II. Some dams are drills

- a. If neither conclusion I nor II follows
- b. If only conclusion II follows
- c. If either conclusion I or conclusion II follows
- d. If only conclusion I follows

Ans - Option - C

Question 6: Find the wrong term in the given series

IWLZ, NSOU, SOTQ, XKAM, CGJI

- A. NSOU
- B. IWLZ
- C. CGJI
- D. XKAM

Ans - Option - B

Question 7: Given below is the question followed by two statements ,I and II each containing some information. Decide which if the statement(s) is/are sufficient to answer the question.

Five persons - A,B,C,D and E sit around a circular table , facing the centre not necessarily in that order .Who sits second to the right of D?

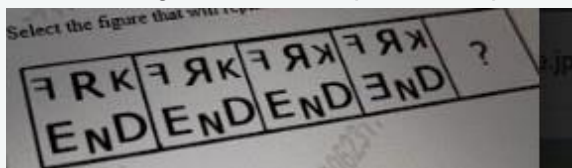
- I. A sits the immediate right of E, who is not a neighbour of D.
- II. B is to the immediate left of D.

- A. If only statement II is sufficient to answer the question.
- B. If the data in both the statement I and II together are necessary to answer the question.
- C. If the data either in statement I alone or in statement II alone is sufficient to answer the question.
- D. If only statement I is sufficient to answer the question.

Ans - Option B

Question 8:

Select the figure that will replace the question mark (?) in the following figure grid.





d. Image Not available

Ans - Option C

Question 9)

Five persons A,B,C,D and E are comparing the number of books which they have bought recently. A bought more number of books than C and E, but not the highest. B bought more number of books than exactly one person. Then which of the following bought the highest number of books?

- a. C
- b. D
- c. B
- d. E

Ans - Option - b - D

Question 10:

In a certain code, if:

- (1) J@K means j is k's daughter.
- (2) J%K means j is k's wife.
- (3) J + K means K is j's father.
- (4) J / K means K is J's mother.

F@R%I/E%N

How is R related to N in the given expression?

- a. Mother-in-law
- b. Son-in-law
- c. Daughter-in-law
- d. Mother

And - Option C.

Question 11:

Among P,Q,R,S and T , Q is the second tallest and S is immediately taller than the shortest. R is neither tallest nor the shortest. Who among them is in the middle when they stand in the order of their heights?

- a. R
- b. P
- c. S
- d. T

Ans - Option a - R

Question 12.

Given Below is the question followed by two statement 1 and 2 each containing some information

Six people P,Q,R,S, T and U have different scores in the classroom test, who scored the second highest marks?

- 1. P scores better than T and Q, who scores better than S, S scores better than U, R scores better than P.

2. S scores better than at least one person, P scores better than S and T

Ans - Option - D

Question 13. Given below is the question followed by two statements I and II , each containing some information. Decide which of the statement(s) is/are sufficient to answer the question.

If p and q are real numbers, is p positive?

1. $p^2q^3 < 0$
2. $p^3q^4 > 0$

- A. If the question can be answered by using either statement alone
- B. If the question can be answered by using both statements together but cannot be answered by using either statement alone.
- C. If the question can be answered by using one of the statements alone but cannot be answered by using the other statements alone.
- D. If the question cannot be answered even by using both the statement together.

Ans -

Question 14. Given below is a question followed by two statements I and II, Decide which of the statements is/are sufficient to answer the question.

What is the color of human blood?

Statements:

- I. Red is called white and white is called yellow.
- II. Yellow is called pink and pink is called green.

- A. Statement II alone is sufficient
- B. Either statement I alone or II alone is sufficient.
- C. Statement I alone is sufficient.
- D. Both statements I and II, are necessary.

Ans - Option - C

Question 15: Given the below question followed by two statements 1 and 2, each containing some information. Decide which of the statements is /are sufficient to answer the question.

What is the height of triangle ABC?

1. The height and base of triangle ABC are in the ratio of 6:5.
2. The area of triangle ABC is 60 sq. cm, its perimeter is 36cm and its base is $\frac{5}{18}$ th of the perimeter of the triangle.

1. The data given in both statements 1 and 2 together is not sufficient to answer the question.
2. The data in either statement 1 alone or in statement 2 alone is sufficient to answer the question.
3. The data in statement 2 alone is sufficient to answer the question while statement 1 is not alone sufficient to answer the question.
4. The data in statement 1 alone is sufficient to answer the question while statement 2 is not alone sufficient to answer the question.

Ans - Option - C

Question 16:

Sohan and Saurabh are brothers. Tanya and Tashima are sisters. Saurabh's father is the only son-in-law of Tanya's mother's mother. How is Tashima related to Sohan's father ?

'#' is sister-in-law, '>' is daughter, '<' is granddaughter, and '@' is sister?

- a. #
- b. >
- c. <
- d. %

Ans - Option - b - >

Question 17:

Read the given information carefully and answer the following questions

- .
- I. 'A#B' means 'A' is the mother of 'B'
 - II. 'A*B' means 'A' is the father of 'B'
 - III. 'A&B' means 'A' is the brother of 'B'
 - IV. 'A%B' means 'A' is the sister of 'B'

Which among the following expression shows that R is the maternal uncle of T?

- a. P&Q*R#S#T
- b. P#Q*R%S#T
- c. P#Q*R*S#T
- d. P%Q*R&S#T

Ans - Option - D

Question 18. Given below is the question followed by three statements, I II and III, each containing some information. Decide which of the given statement is CORRECT?

The question consists of three statements numbered I, II and III, given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

Eight people P, Q, R, S, T, U, V, and W were ranked based on their weights. Who is the 4th lightest person?

- I. U is heavier than only two persons. T is heavier than U but lighter than P, who is lighter than only three persons.
- II. R is heavier than P but lighter than Q. S is heavier than V.
- III. P is heavier than S, who is lighter than U.

- A. Data are given in all statements I, II, and III together are required to answer the question.
- B. Data given in both statements I and II together are required to answer the question.
- C. Data given in statements I and III together are required to answer the question.
- D. Data given in statement I alone is required to answer the question.

Ans - Option - A. Data are given in all statements I, II, and III together are required to answer the question.

Question 19:

Statements:

All taps are mats.

All cats are rats

All mats are rats.

Conclusions:

- I. All cats are mats.
- II. Some rats are taps.
- III. Some taps are cats is not a possibility.
- IV. All taps are rats.

Options:

- a. Only IV follow
- b. Only II and IV follow
- c. Only I, III and IV follow
- d. All follow

Answer: b. Only II and IV follow

Question 20:

Eight persons A, B, C, D, E, F, G, and H are sitting around a square table. All of them are facing towards the center, Only one person sits on each of the sides and only one person sits on each of the corners. Four of them sit on the sides and four of them sit on the corners. C is sitting 3rd to the left of B, who sits on a side. D is sitting opposite to H, who is sitting 3rd to the right of B. A is sitting 2nd to the right of G. G is not sitting opposite to either E or F. F is not an immediate neighbor of H.

Who among the following is sitting opposite to A?

- a. F
- b. B
- c. E
- d. C

Answer: c. E

QUESTION 21

Given below is a question followed by two statements I and II. Decide which of the statements are sufficient

In which direction is the village X with respect to Q?

Statements

- I. Village X is to the North of village Y
- II. Village P is to the South of village Q

Options

- A. Statement I alone is sufficient
- B. Either statement I alone or statement II alone is sufficient
- C. Statement II alone is sufficient
- D. Both the statements, I and II, are not sufficient

Answer: D. Both the statements, I and II, are not sufficient

QUESTION 22: Given below is a question followed by two statements I and II. Decide which of the statement is/are sufficient to answer the following question.

Who is the youngest in the group?

Statements:

In a group of four people :

- I. Amit is older than Mahesh and younger than Tanuja.
- II. Rahim is younger than Mahesh.

Options

- A. Statement II alone is sufficient .
- B. Both statements I and II are necessary.
- C. Either statement I alone or statement II alone is sufficient.
- D. Statement I alone is sufficient.

Answer: B. Both the statements I and II are necessary.

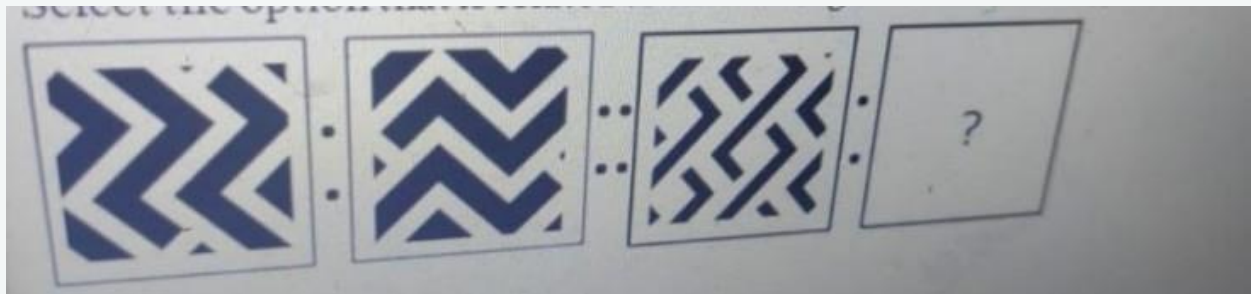
QUESTION 23: In the early morning, Akash was standing in front of a puppet in the field. The shadow of the puppet was falling to the right of Akash. In which direction is Akash facing?

- a. West

- b. South
- c. North
- d. East

Answer: a. West

Question 24:
Which figure will come in place of the question mark?



a.



b.

c.



d.



Ans - B

QUESTION 25

In a certain code if,

K@L means K is L's father

K#L means K is Daughter of L

K%L means L is mother of K

K+L means K is grandson of L

K x L means L is only child of K

'K©L means K is L sister

R+A x E@F#G©T

Which of the following is CORRECT conclusion drawn from the expression?

1. R is the father of T

2. F is the daughter of A
3. R is the son of G
4. E is the mother of T

Answer : 3. R is son of G

QUESTION 26:

In a certain code, if:

'R ÷ S' means that 'R is the brother of S.'

'R x S' means that 'R is the father of S'.

'R + S' means that 'R is the mother of S'.

'R - S' means that 'R is the sister of S',

Which of the following represents that 'L is the son of Z'?

- a. $L + N - Z \div T$
- b. $Z x L \div N - T$
- c. $Z x N \div L + T$
- d. $L \div T + N - Z$

Ans - B

QUESTION 27

Read the given information carefully and answer the following questions

- i) A#B means A is the mother of B
- ii) A*B Means A is the father of B
- iii) A&B Means A is the brother of B
- iv) A%B Means A is the sister of B

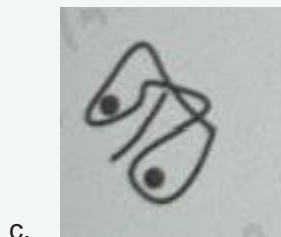
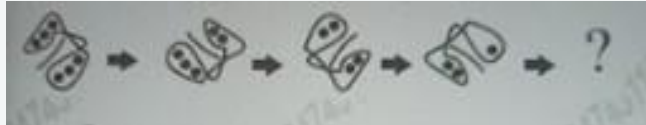
Which among the following expression shows that R is the maternal uncle of T

1. P&Q*R#S#T
2. P#Q*R%S#T

3. P#Q*R*S#T
4. P%Q*R&S#T

Question 28:

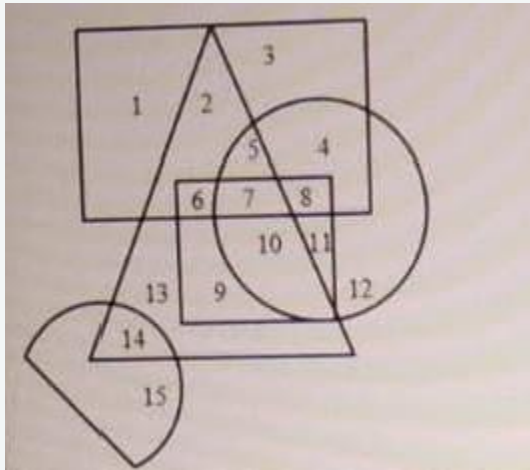
Which figure will come next in the following series?



Ans - Option - C

Question 29:

In the following figure, triangle represents junior assistant, circle represents technical assistant, semi circle represents admin executive, rectangle represents stenographer and square represents sale executive. Which number represents only junior assistant, stenographer and technical assistant?

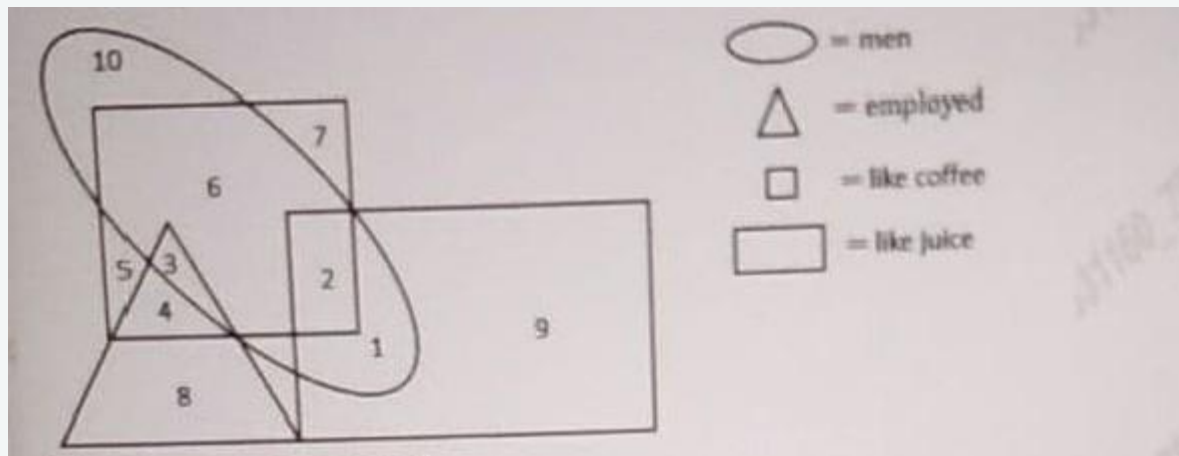


- a. 10
- b. 7
- c. 8
- d. 5

Ans - d. 5

Question 30:

The diagram gives information about people who are employed and coffee and juice



What does region 3 represent?

- Unemployed men who don't like coffee
- Employed men who don't like coffee
- Employed men who like coffee
- Employed men who like coffee and juice

Ans - Option -C

Question 31

The salaries of three persons a b and c are rs 19000, rs 17000 and rs 15000 not necessary in the same order. Their expenses are rs 13000 rs 11000 and rs. 9000 and their savings are rs 8000, Rs 6000 and Rs 4000 both of which are not necessary in the same order. The savings of C are the least and expenses of b are more than that of A. What was the salary of B.

- Rs 19000
- Rs. 17000
- Either Rs. 17000 and Rs. 15000
- Rs. 15000

QUESTION 32

In a certain code

U \$(changed symbol, not present on keyboard) V means V is the brother of U

U # V means U is the daughter of V

U = V means V is the sister of U

U ^ (changed symbol, not present on keyboard) V means U is the son of V

U + V means U is the father of V

U @ V means U is the mother of V

Which of the following might be CORRECT conclusion for the following arrangements

$Q \wedge N @ S \$ M = P$?

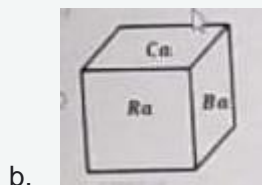
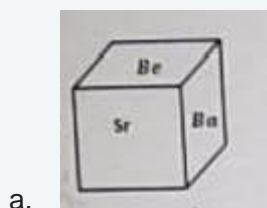
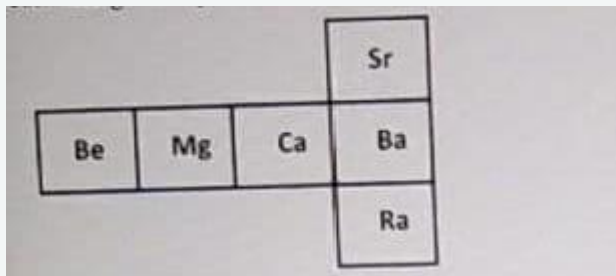
Options

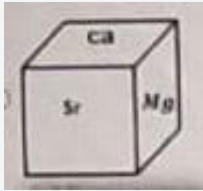
- A. P is sister of Q
- B. S is the brother of P
- C. S is the sister of Q
- D. N has two sons and two daughters

Ans - Option - A

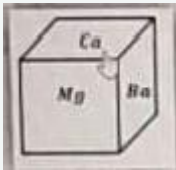
Question 33:

From the given option, which answer figure cannot be made based on the unfolded cube in the question figure?





c.

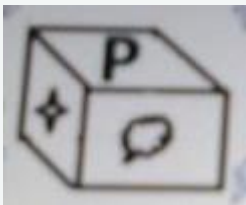
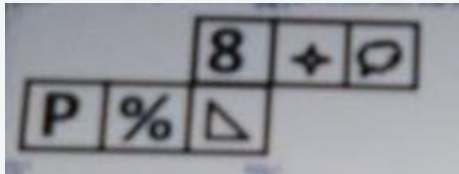


d.

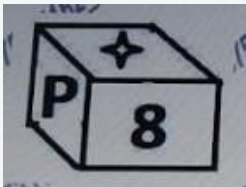
Ans - Option - D

Question 34:

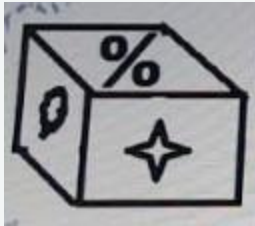
From the given option, which answer figure cannot be made based on the unfolded cube in the question figure?



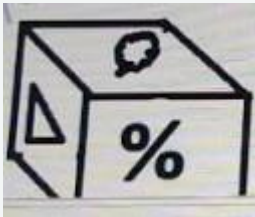
a.



b.



c.

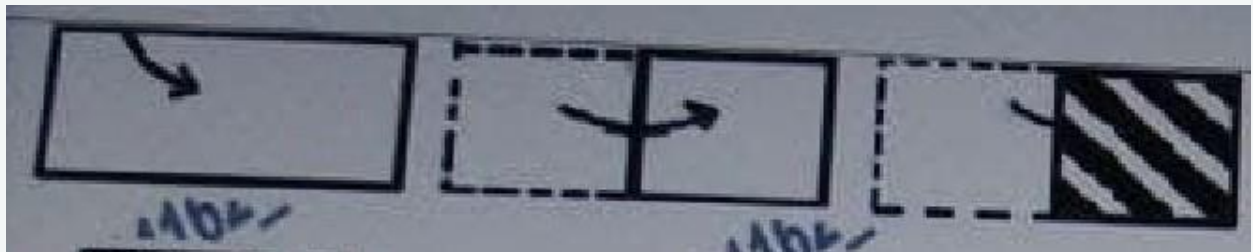


d.

Ans - Option -

Question 35:

A paper was taken and was folded and shaded in the manner shown below. How will it appear when unfolded?



a.



b.



c.



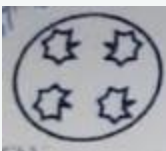

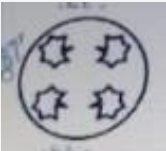

d.

Answer: Option D

Question 36:

A circular paper was taken and was folded and cut in the manner shown below. How will it appear when unfolded?

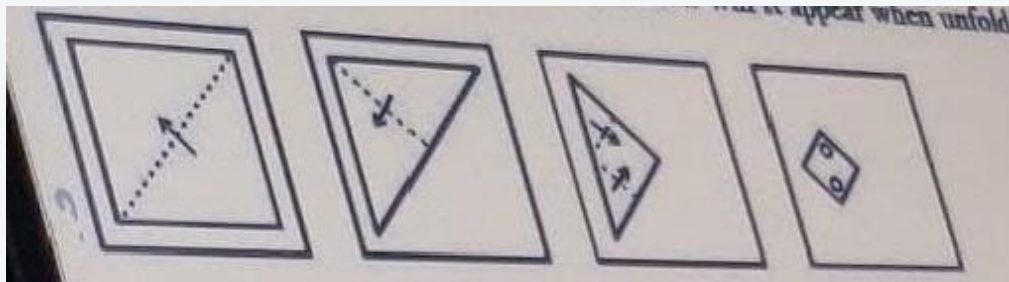


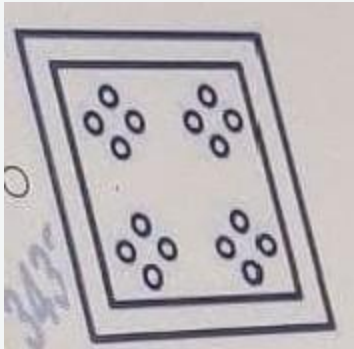
- a. 
- b. 
- c. 
- d. 

Ans - Option - B

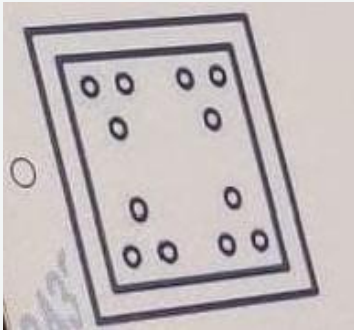
Question 37:

A paper is folded and cut as shown below. How will it appear when unfolded?

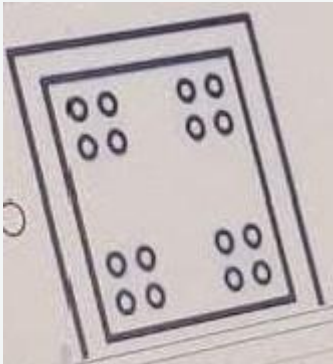




a.



b.



c.

Answer: Option A

Programming Logic

Question 1:

What will be the final value of the res when INPUT N1=100?

Function F(INPUT N1)

Static int res=0;

IF(N1>0)

 res=res+1

 F(N1/20)

END IF

return res

END Function

- A. 3
- B. 2
- C. Error
- D. 1

Answer -

B.2

Question 2:

What will be the output of the following pseudo code

Integer x,y,z

x=2

y=1

z=5

Do

Print z--

while((x & y)|| (z+1))

End loop

- A. 5 4 3 2 1 0

- B. 5 4 3 2 1 1
- C. 4 3 2 1 0 0
- D. 4 3 2 1 1 1

Ans:-

Option A

Question 3:

What is the output of the following code?

Set integer _no1=0, _no2=1, _no3=1, _lower=6, _inc=1

while _inc is less than equals to _lower:

 _inc is increment by 1

 Print _no3

 _no3=_no1+_no2

 _no1 equals to _no2

 _no2 equals to _no3

End While

- A. 1 2 3 5 8
- B. 3 5 8
- C. 1 1 2 3 5 8
- D. 2 3 5 8

Answer - Option c

Question 4:

Find the output of the following code

```
#include<stdio.h>
```

```
int main ()
```

```
{
```

```
int num;
```

```
printf ("enter number" );
```

```
scanf ("%d", &num);
```

```
no = (num * 2) + 3 ;
```

```
    (no & 1 && printf ("odd"))printf ("even")
```

```
return 0;
```

```
}
```

Options

- a. Enter a number: Odd
- b. Odd
- c. Error : 'no' undeclared
- d. Even

Answer - Option C

Question 5: How many iterations would be required to sort the following array using bubble sort. Digits = {11,12,14,13}

- A) 4
- B) 2
- C) 1
- D) 3

Answer - Option B

Question 6: Construct the inorder traversal for the constructed tree with below preorder and postorder traversals

Preorder: 12 4 3 2 4 11 15 13 14 16

Postorder: 2 3 11 4 4 14 13 16 15 12

- A) 2 3 4 4 11 12 13 14 15 16
- B) 2 3 4 11 12 13 4 14 15 16
- C) 11 12 13 2 3 4 4 14 15 16

D) 11 12 13 14 15 16 2 3 4 4

Question 7:

What will be the output of the following code?

```
#include<stdio.h>
```

```
Int main()
```

```
{
```

```
while(){
```

```
printf("hello world");
```

```
}
```

```
return 0;
```

```
}
```

- A. Compile error
- B. No output will be printed
- C. hello world
- D. Infinite loop

Ans:- A

Question 8:

What is the output of the following code

```
class A{
```

```
public int i;
```

```
public int j;
```

```

A(){
    i=1;
    j=2;
}
}
class B extends A{
    int a;
    B(){
        super();
    }
}
class transform {
    public static void main(String, args[]){
        B obj = new B();
        System.out.println(obj.i+" "+obj.j);

    }

}

```

Options

- a. 1 2
- b. Compile-time error
- c. Run time error
- d. No Output

Answer - Option C

Question 9:

Find the max element in the left subtree if the below numbers are inserted into binary search tree

35 24 51 49 28 13 8 27

- A) 51
- B) 24
- C) 35
- D) 28

Question 10:

Select the output of the code in bytes

```
#include<stdio.h>
Int main()
{
Int arr[5]={5,2,4,3,1}
Int i;
For(i=0;i<5;i++)
    If ((char)arr[i]=='5')
        printf("%d",arr[i]);
    Else
        printf("invalid\n");
}
```

Ans:-

invalid
invalid
invalid
invalid
invalid

Question 11:

Convert the following infix to postfix expression:

$w+x*y+(z*a)$

- A) $wxy*+(za)*+$
- B) $w+xy*za+*$
- C) $wxy*+za*+$
- D) $wxy+*za*+$

Answer - Option C

Question 12:

What will be the output of the following code

```
#include <stdio.h>
#define LowerLimit 10
int main(){
    auto int x=10;
    switch(x,x*2){
        case LowerLimit:
            printf("ABC");
            break;
        case LowerLimit*2:
            printf("XYZ");
            break;
        case LowerLimit*3:
            printf("PQR");
            break;
        default:
            printf("MNO");
```



```
        case LowerLimit*4:  
            printf("www");  
            break;  
    }  
}
```

Ans:- XYZ

Question 13:

Which of the below SDLC models does not NOT incorporate any changes?

- A) Automatic Deployment model
- B) RAD Model
- C) Waterfall model
- D) Build and deploy model

Ans:- C) Waterfall model

Question 14:

```
#include<iostream>  
using namespace std;  
int reservation (void *ptr);  
int main ()  
{
```

```
char *Str = "ReservationId:419267"  
reservation (Str);  
return 0;  
}
```

```
int reservation (void *Ptr)  
{  
    cout << ptr;  
    return 0;  
}
```

- A) Address of string" ReservationID:419267"
- B) Compilation Error
- C) Runtime error
- D) Reservation Id: 419267

Answer : Option B

Question 15:

What will be the output of the following code?

```
#include <stdio.h>
```

```
int main()  
{  
    int a=64;
```

```
double b=256;
int *x=&a;
double *y=&b;
printf("x and y are %d and %d",sizeof(x),sizeof(y));
return 0;
}
```

- A. Compilation error
- B. x and y are 8 and 8
- C. x and y are 1 and 2
- D. Runtime error

Ans:- B) x and y are 8 and 8

Question 16:

what would be the output of the below code?

```
#include <stdio.h>
int main ()
{
    int n, num = 8421;
    n = num;
    while (num >= 10)
    {
        num /= 10;
    }
    printf ("%d", num);
}
```

```
    return 0;
}
```

Ans:- 8

Question 17:

What is the output of the following code when inputChar = 'y'
#include <stdio.h>

```
int main()
{
    char inputChar;
    printf("%d",scanf("%c",&inputChar));
    return 0;
}
```

Ans:- 1

Question 18:

By using which model the software is developed in th series of

- A) Waterfall model
- B) Iterative model
- C) Spiral model
- D) Big band model

Ans:- c)Spiral model

Question19:

The testing team needs to test the product against previous test cases to deploy the application into production and

- A) Regression
- B) Unit
- C) Test design
- D) Integration

Answer - Option C

Question 20:

integer array[N]

Integer i=0;

max=0;

While i<N

 [missing code]

i=i+1

End while

Print max

The missing block of code will be?

- A) If array[i]>max
 array[i]=max

End If

- B) If array[0]>max
 max=array[i]

End If

- C) If array[i]<max
 max=array[0]

End if

D) If array[i]>max

max=array[i]

End if

Answer - Option D

Coding

Question 1:

An automobile company manufactures both a two wheeler (TW) and a four wheeler (FW). A company manager wants to make the production of both types of vehicle according to the given data below:

1st data, Total number of vehicle (two-wheeler + four-wheeler)=v

2nd data, Total number of wheels = W

The task is to find how many two-wheelers as well as four-wheelers need to manufacture as per the given data.

Example :

Input :

200 -> Value of V

540 -> Value of W

Output :

TW =130 FW=70

Explanation:

$130 + 70 = 200$ vehicles

$(70 * 4) + (130 * 2) = 540$ wheels

Constraints :

$2 \leq W$

$W \% 2 = 0$

$V < W$

Print "INVALID INPUT" , if inputs did not meet the constraints.

The input format for testing

The candidate has to write the code to accept two positive numbers separated by a new line.

First Input line - Accept value of V.

Second Input line- Accept value for W.

The output format for testing

Written program code should generate two outputs, each separated by a single space character(see the example)

Additional messages in the output will result in the failure of test case

Solution in C++:

```
#include <bits/stdc++.h>
using namespace std;
```



```

int main()
{
    int v,w; cin>>v>>w;
    float x=((4*v)-w)/2;
    if((w&1) || w<2 || w<=v)
        {cout<<"INVALID INPUT"; return 0;}
    cout<<"TW="<<x<<" "<<"FW="<<v-x;
}

```

Solution in Python:

```

v=int(input())
w=int(input())
if (w&1)==1 or w<2 or w<=v:
    print("INVALID INPUT")
else:
    x=((4*v) -w)//2
    print("TW={0} FW={1}".format(x,v-x))

```

Solution in Java:

```

import java.util.*;
public class Solution
{
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        int v=sc.nextInt();
    }
}

```

```

    int w=sc.nextInt();
    float res=((4*v)-w)/2;
    if(w>=2 && (w%2==0) && v<w )
        System.out.println("TW= "+(int)(res)+" FW= "+(int)(v-res));
    else
        System.out.println("INVALID INPUT");
}
}

```

Question 2:

Given a string S(input consisting) of '*' and '#'. The length of the string is variable. The task is to find the minimum number of '*' or '#' to make it a valid string. The string is considered valid if the number of '*' and '#' are equal. The '*' and '#' can be at any position in the string.

Note : The output will be a positive or negative integer based on number of '*' and '#' in the input string.

(*>#): positive integer

(#>*): negative integer

(#=*): 0

Example 1:

Input 1:

###*** -> Value of S

Output :

0 → number of * and # are equal

Solution in C++:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    string s;
    int a=0,b=0;
    getline(cin,s);
    for(auto i:s)
        if(i=='#') a++;
        else if(i=='*') b++;
    cout<<b-a;
}
```

Solution in Python:

```
s=input()
a=0
b=0
for i in s:
    if i=='*':
        a+=1
    elif i=='#':
        b+=1
print(a-b)
```

Solution in Java:

```
import java.util.*;
```

```

public class Solution
{
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        String str=sc.next();
        int count1=0,count2=0;
        for(int i=0;i<str.length();i++)
        {
            if(str.charAt(i)=='*')
                count1++;
            else if(str.charAt(i)=='#')
                count2++;
        }
        System.out.println(count1-count2);
    }
}

```

Question 3:

A chocolate factory is packing chocolates into the packets. The chocolate packets here represent an array arrt of N number of integer values. The task is to find the empty packets(0) of chocolate and push it to the end of the conveyor belt(array).

For Example:

N=7 and arr = [4,5,0,1,9,0,5,0].

There are 3 empty packets in the given set. These 3 empty packets represented as 0 should be pushed towards the end of the array

Example 1:

Input:

7 - Value of N

[4,5,0,1,0,0,5] - Element of arr[0] to arr[N-1],While input each element is separated by newline

Output:

4 5 1 9 5 0 0

Example 2:

Input:

6

— Value of N.

[6,0,1,8,0,2] - Element of arr[0] to arr[N-1], While input each element is separated by newline

Output:

6 1 8 2 0 0

Solution in C++:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int n,j=0; cin>>n;
    int a[n]={0};
    for(int i=0;i<n;i++)
    {
        cin>>a[j];
        if(a[j]!=0) j++;
    }
    for(int i=0;i<n;i++) cout<<a[i]<<" ";
}
```

Solution in Python:

```
n=int(input())
j=0
L=[0 for i in range(n)]
```

```

for i in range(n):
    a=int(input())
    if a!=0:
        L[j]=a
        j+=1
for i in L:
    print(i,end=" ")

```

Solution in Java:

```

import java.util.*;
class Solution
{
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        int n=sc.nextInt();
        int arr[]=new int[n];
        for(int i=0;i<n;i++)
            arr[i]=sc.nextInt();

        int count=0;
        for(int i=0;i<n;i++)
            if(arr[i]!=0)
                arr[count++]=arr[i];
        for(int i=count;i<n;i++)
            arr[i]=0;

        for(int i=0;i<n;i++)
            System.out.print(arr[i]+" ");
    }
}

```

Question 4:

Joseph is learning digital logic subject which will be for his next semester. He usually tries to solve unit assignment problems before the lecture. Today he got one tricky question. The problem statement is "A positive integer has been given as an input. Convert decimal value to binary representation. Toggle all bits of it after the most significant bit including the most significant bit. Print the positive integer value after toggling all bits".

Constraints :

$1 \leq N \leq 100$

Example 1:

Input :

10 -> Integer

Output :

5 -> result- Integer

Explanation:

Binary representation of 10 is 1010. After toggling the bits(1010), will get 0101 which represents "5". Hence output will print "5".

Solution in Java:

```
import java.util.*;
class Solution
{
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        int no=sc.nextInt();
        String bin="";

        while(no!=0)
        {
            bin=(no&1)+bin;
            no=no>>1;
        }
        bin=bin.replaceAll("1","2");
```

```

        bin=bin.replaceAll("0","1");
        bin=bin.replaceAll("2","0");
        int res=Integer.parseInt(bin,2);
        System.out.println(res);
    }
}

```

Solution in C++

```

#include <bits/stdc++.h>
using namespace std;

int main()
{
    int n; cin>>n;
    int k=(1<<(int)floor(log2(n))+1)-1;
    cout<<(n^k);
}

```

Solution in Python:

```

import math
n=int(input())
k=(1<<int(math.log2(n))+1)-1
print(n^k)

```


Question 5:

Jack is always excited about Sunday. It is favourite day, when he gets to play all day. And goes to cycling with his friends.

So every time when the month starts he counts the number of Sundays he will get to enjoy.

Considering the month can start with any day, be it Sunday, Monday.... Or so on.

Count the number of Sunday Jack will get within n number of days.

Example 1:

Input

mon-> input String denoting the start of the month.

13 -> input integer denoting the number of days from the start of the month.

Output :

2 -> number of days within 13 days.

Explanation:

The month starts with mon(Monday). So the upcoming Sunday will arrive in next 6 days. And then next Sunday in next 7 days and so on.

Now total number of days are 13. It means 6 days to first Sunday and then remaining 7 days will end up in another Sunday. Total 2 Sundays may fall within 13 days.

Solution in Java:

```
import java.util.*;  
class Solution
```

```
{
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        String str=sc.next();
        int n=sc.nextInt();
        String arr[]{"mon","tue","wed","thu","fri","sat","sun"};
        int i=0;
        for(i=0;i<arr.length;i++)
            if(arr[i].equals(str))
                break;
        int res=1;
        int rem=6-i;
        n=n-rem;
        if(n>0)
            res+=n/7;
        System.out.println(res);
    }
}
```

12th Sept Slot 2

Numerical Ability