

# TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

## Numerical Ability

Question1:

Find the smallest number that leaves respective remainders of 4,5,6, and 7 on division by 5,6,7, and 8 respectively?

Options:

- a. 841
- b. 839
- c. 2521
- d. 2519

Answer: Option B - 839

Question 2:

A number  $452p36$  is such that it is divisible by 36. What can the value of  $p^2$  be?

Options:

- a. 36
- b. 25
- c. 49
- d. 16

Answer:- Option C the value of  $p=7$  and  $p^2=49$

Question 3:

$$\frac{\sqrt{698 - \sqrt{498 - \sqrt{196}}}}{\sqrt{34 - \sqrt{324}}}$$

Find the value of

Options:

- A. 3.25
- B. 4.5
- C. 5.5
- D. 6.5

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Answer: Option D - 6.5

Question 4:

Let  $x$  be the least number which when divided by 12, 15, 18, 20, 27 and 30, the remainder in each case is 1 and  $x$  is a multiple of 47. The sum of the digits of  $x$  is:

Options:

- a. 13
- b. 11
- c. 9
- d. 10

Ans:- d) 10

LCM of 12, 15, 18, 20, 27, 30 is 540

Number should be divisible by 47 if we multiply  $k$  by 540 and add 1 then the number is divisible by 47

$$540k + 1 \div 47$$

Put value of  $k$  as 1, 2

For  $k=2$

$$540 * 2 + 1 = 1081 \text{ which is divisible by 47}$$

$$1081/47=23$$

So the digit is 1081

Addition of digits = 10

Question 5: If  $M\%$  of  $N$  is  $P$ ,  $N$  is 60% more than  $M$  and  $P$  is 40% of  $M$ , find what % of  $N + P$  is  $M$ ?

Options

- a. 30%
- b. 65%
- c. 50%
- d. 40%

Answer: Option C-50%

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Question 6:

Find the value of  $\frac{(5.7)^4 + (3.3)^4 + (18.81)^2}{(5.7)^2 + (3.3)^2 + (18.81)} = ?$   
Options

- A. 59.59
- B. 61.79
- C. 62.19
- D. 53.89

Answer: getting 24.57 (Options provided are incorrect)

Question 7: The expenditure of Rashmi is equal to 225% of her savings. If her income increases by 20% and the expenditure increases by 40%, then her savings will \_\_\_\_\_.

Options

- a. Decrease by 25%
- b. Decrease by 20%
- c. Increase by 25%
- d. Increase by  $33 \frac{1}{3} \%$

Answer: Option A

Question 8:

A business lady bought 400 handbags. She sold 100 of them at a profit of 20% and the rest at 10% profit. Find the overall profit percentage.

Options:

- a. 12.5%
- b. 16.75%
- c. 19.75%
- d. 11.25%

Answer:- 12.5%

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Question 9: Simple interest on a sum of money after 32 months at  $24\frac{4}{9}\%$  rate of interest is Rs.7040. What is the compound interest upon  $28\frac{1}{3}$  more sum at 20% rate of interest after 2 years?

- a. Rs. 6194.4
- b. Rs. 5575.4
- c. Rs. 6098.4
- d. Rs. 5447.4

Answer -

Question 10: If  $\frac{\sqrt{11 + 6\sqrt{2}}}{\sqrt{17 - 2\sqrt{72}}} - \sqrt{22 - 4\sqrt{18}} = a + b\sqrt{2}$  then what is the value of (a+b)?

- a. 15
- b. 9
- c. 12
- d. 21

Answer: Option D

Question 11: An electronics item dealer can earn a profit of 5%, even after allowing a 30% discount. He wanted to clear his old stock, so he offered a scheme of three successive discounts of 12%. What could be his minimum profit % approximately?

Options

- a. 2
- b. 4
- c. 1
- d. 3

Answer: Option A

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Question 12: A shopkeeper sells an item at Rs. 368.55 after giving a discount of 25% on its labelled price. Had he not given the discount, he would have earned a profit of 17% on its cost price. What is the cost price (in Rs) of the item?

- a. 400
- b. 450
- c. 380
- d. 420

Answer - Option D

Question 13: Adil shared 40% of his marbles with Banti and 50% of the remaining with Babli. Banti equally distributed 20% of his marbles between Adil and Babli and is left with 16 marbles. How many Marbles did Adil have originally?

Options

- a. 125
- b. 101
- c. 50
- d. 150

Answer:- Option C

Question 14: What is the value of k in the expression given below:

$$[2k - 40 \times (28/35) + 48 - (-18) \times (-2)] \times (12 - 8) = (64/24) \times 6 + 4$$

- a. 1.8
- b. 7.5
- c. 12.5
- d. 10.5

Answer- Option C

Question 15:

Sachin borrows Rs,53000 from a moneylender and promises to pay him the total amount after 6 months at the rate of 20 percent per annum simple interest. Due to non payment after 6 months,

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the moneylender calculates the simple interest at 30 percent per annum on the principal amount for the overdue period. Find the total amount to be paid by Sachin after 1 year.

Options:

- a. Rs.68570
- b. Rs.60420
- c. Rs.60000
- d. Rs.61760

Answer: getting 66250

Question 16:

A trader buys 120 m cloth at Rs 125 per metre. He sells 40% of it at a gain of 10% and  $33\frac{1}{3}\%$  of the remaining cloth at a gain of 15%. At what percent should he sell the remaining cloth so as to gain 25% in the entire transaction?

- a.  $42\frac{2}{3}$
- b. 30
- c.  $28\frac{1}{3}$
- d. 45

Answer: Option d

Question 17:

If  $x = \frac{7}{12}$  divided by  $\frac{3}{4}$  of  $(3\frac{1}{3} - \frac{5}{2}) - \frac{4}{15}$  and  $y = (0.9\bar{1} \div 0.8\bar{2}) \times \frac{2}{11}$ ,

then the value of (x divided y) is

Option

- A.  $2\frac{1}{6}$
- B.  $3\frac{1}{3}$
- C.  $6\frac{2}{3}$
- D.  $2/15$

Answer: Option A

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Question 18:

The cost price of an article is Rs. X. Ambuj marks a new price on it and after allowing a discount of 20% on the newly marked price, he sells it for Rs. 1.2X. He sells a second article whose marked price is twice the marked price of the first article, at a discount of 50%. Find the ratio of the selling price of first article to the second article.

- a. 4 : 5
- b. 5 : 3
- c. 3 : 5
- d. 2 : 3

Answer - Option A

Question 19.

What is the area of the triangle ABC, where AB=10 cm, BC=10 cm and CA=16 cm?

- a.  $4\sqrt{61}cm^2$
- b.  $8\sqrt{65}cm^2$
- c.  $36cm^2$
- d.  $48 cm^2$

Answer- Option D

Question 20:

Two persons were approaching each other at 12 km/hr and 24km/hr respectively. A train moving in the same direction as the faster man took 25 seconds to cross him and 15 seconds to cross the other one. Find the speed of the train(in km/hr).

Options:

- a. 45
- b. 66
- c. 78
- d. 60

Answer: Option C

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Question 21:

If  $(a+b+c) = \frac{144}{a}$ ,  $(a+b+c) = \frac{16}{b}$ , and  $(a+b+c) = \frac{9}{c}$ , what is the value of c?

- a. 9 / 7
- b. 9 / 13
- c. 16 / 3
- d. 9 / 5

Answer - Option B

Question 22:

What is the value of 'k' in the expression given below?

$$(2)^{1.5}(4)^{2.6}(16)^{4.7}(32)^{4.5}(64)^{3.8}(128)^{7.2} = (2)^k$$

Option:

- A. 121.2
- B. 123.5
- C. 124.6
- D. 115.7

Answer- Option A

Question 23:

In 75% of the time that B takes to do a piece of work, A does half the work. Together they take 18 days to complete the work. C alone can complete the same work in 24 days. All the three started the work together but B left 5 days before the completion of the work. In how many days was the whole work completed?

Options:

- a. 12
- b. 15
- c. 10
- d. 16



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Question 24:

The speed of a boat upstream is 40% less than the speed of the boat downstream. It takes 13.5 hours to go 120 km downstream and 90 km upstream. How much time (in hours) will it take to go 90km downstream and 120 km upstream?

- a.  $10\frac{1}{2}$
- b. 15
- c. 16
- d.  $14\frac{1}{2}$

Question 25:

The value of 
$$\frac{(8.3)^2 + (7.9)^2 + 6.2(6.2 + 7.9 + 8.3) - 8.3 * 7.9}{(83)^2 + (79)^2 - (62)^2 + 83 * 237 * 62}$$
 is

Option:

- A. 0.001
- B. 0.0001
- C. 0.01
- D. 0.1

Answer - B.0.0001

Question 26:

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

10, 7, 12, 21, 37, 14, 19, 28, 18, 12, and 42.

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

- a. 2
- b. 4
- c. 7
- d. 3

Answer: Option d

### Verbal Ability

Question 1:

One part of the sentence below may contain an error. Identify the part. If there is no error choose “No Error”

A sociologist study the ways in which people live together, raise their family and follow community structures and customs.

Options:

- a. No error
- b. A sociologist study the ways in which
- c. and follow community structures and customs.
- d. people live together, raise their family

Answer: B

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

He completed his task \_\_\_\_\_ pressing deadline.

- a. In spite of a
- b. De spite of a
- c. Although
- d. Even though

Answer: A

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Question 3: One part of the sentence below may contain an error. Identify the part. If there is no error choose 'No Error'

Either of the two candidates who have filed for the nomination are suitable for the position.

Options

- a. No error
- b. Either of the two candidates
- c. are suitable for the position
- d. who have filed for the nomination

Answer: D

Question 4: One part of the sentence below may contain an error. Identify the part. If there is no error choose 'No Error'

May you carry these books for me, please?

Options

- a. No Error
- b. carry these books
- c. May you
- d. for me, please?

Answer: C

Question 5:

One part of the sentence below may contain an error. Identify the part. If there is no error choose 'No Error'

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The Prime Minister will announce the scheme if the Cabinet will approve it.

Options:

- a. if the Cabinet will approve it.
- b. announce the scheme
- c. The Prime Minister will
- d. No Error

Answer: a

Question 6: Read the following sentence and fill in the blank by selecting the appropriate option:

It is not easy to \_\_\_\_\_ the profoundness of a mother's love for her child

Options

- a. Evaluate
- b. Fluctuate
- c. Equate
- d. Overestimate

Answer: A

Question 7:

One part of the sentence below may contain an error. Identify the part. If there is no error choose 'No Error'

I'll not go out if it will rain.

- a. I'll not

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- b. If it will rain
- c. Go out
- d. Error

Answer: B

Question 8:

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

S1: Banana trees live for about six years, but each stem of the tree only lives long enough to produce fruit.

S2:

S3:

S4: The fruits will be ready in 60 to 90 days after they emerge from the flower.

P: the bananas then grow out of these flowers

Q: The leaves are about nine feet long and two feet wide

R: From each stem, a bundle of banana flowers bloom.

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

Answer - RP

Question 9: Select the most appropriate option to fill in the blanks.

The manager congratulated her team members \_\_\_\_\_ his promotion

Options:

- a. on
- b. at

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- c. In
- d. for

Answer: A

Question 10:

Select the most appropriate option to fill in the blanks

People who are intellectually alive and successful are accustomed \_\_\_\_\_ dealing with ideas and are constantly on the search for new ideas

- a. To
- b. At
- c. With
- d. In

Answer - to

Question 11:

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

The father was happy on his son;s birthday.The son was feeding hundred poor men instead of throwing a birthday party.

Options:

- a. The father was happy on his son's birthday, so the son was feeding hundred poor men instead of throwing a birthday party.
- b. The father was happy to see his son throwing a birthday party instead of feeding the poor.

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- c. The father was happy to see his son feeding hundred poor men on his birthday and throwing a birthday party.
- d. The father was happy to see his son feeding hundred poor men on his birthday instead of throwing a birthday party.

Answer:d

Question 12:

Which of the following sentences uses formal language.

- a. Why do you crib so much?
- b. They have submitted Proposal
- c. I love mumbai. It is alive and kicking
- d. He hasn't changed a bit

Answer: B

Question 13.The following sentence can be revised into one better sentence. Choose the sentence that is the best revision.

She is dancer. She is poetess too

- 1.she is dancer as well as poetess
- 2.She is dancer also a poetess.
- 3.She is dancer poetess.
- 4.She is dancer and she is poetess.

Answer: A

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Question 14. Read the following passage and fill in the blanks by selecting the most appropriate option

One 1.\_\_\_\_\_ that can benefit immensely from solar power is manufacturing. Companies in this industry utilise a significant amount of electricity during their production processes. Large flat roofs of factories are ideal for 2.\_\_\_\_\_ solar panels. The solar panels should face south to maximise sunlight exposure.

Blank 1. (A)- District (B) sector (C)Division (D) Zone

Blank 2. (A)- Building (B) Arranging (C)Putting (D) Installing

Options

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

Answer: B

Question 15:

Read the passage given below and answer the questions that follow

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

The Sumatra earthquake and tsunami are considered to be an eye-opener for India, December 26 marks the 16th anniversary of the massive Indian Ocean tsunami. On this day, a 100 foot high tsunami triggered by an earthquake from under the Indian Ocean hit South Asia. The



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epicentre of the earthquake was near Sumatra, Indonesia and it hit Thailand, Sri Lanka, India. Indonesia. A tsunami researcher and forecaster, Vasily Titov cites that there are some largest faults in the world and they're all underwater. He added that the tsunami waves could be seen like a large pebble falling in the ocean causing mega ripples. Learning from the unprecedented natural disaster that led to such heavy damage to life and property, the Ministry of Earth founded the Indian Tsunami Early Warning System (ITEWS) at the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad in October 2007. Scientists in India are now able to predict and project movements in Indian ocean through real-time seismic monitoring systems. A community performance-based programme known as Tsunami Ready has also been started by the Intergovernmental Oceanographic Commission (IOC) of UNESCO to promote tsunami preparedness by activity involving the public, community leaders and national and local emergency management agencies, India is the first country to establish an early warning system for tsunami detection, while Odisha is the first state in the country to get Tsunami Ready recognition.

1. According to Vasily Titov, which object is the appearance of Tsunami waves compared to?

Options:

- a. Ripples caused by a large pebble falling into water
- b. Ripples caused by multiple small pebbles falling into water.'
- c. Ripples caused by mega oceanic plates.
- d. Pebbles that fall into water.

Answer: a

### Question 16:

Read the passage given below and answer the questions that follow

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

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The Sumatra earthquake and tsunami are considered to be an eye-opener for India, December 26 marks the 16th anniversary of the massive Indian Ocean tsunami. On this day, a 100 foot high tsunami triggered by an earthquake from under the Indian Ocean hit South Asia. The epicentre of the earthquake was near Sumatra, Indonesia and it hit Thailand, Sri Lanka, India. Indonesia. A tsunami researcher and forecaster, Vasily Titov cites that there are some largest faults in the world and they're all underwater. He added that the tsunami waves could be seen like a large pebble falling in the ocean causing mega ripples. Learning from the unprecedented natural disaster that led to such heavy damage to life and property, the Ministry of Earth founded the Indian Tsunami Early Warning System (ITEWS) at the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad in October 2007. Scientists in India are now able to predict and project movements in Indian ocean through real-time seismic monitoring systems. A community performance-based programme known as Tsunami Ready has also been started by the Intergovernmental Oceanographic Commission (IOC) of UNESCO to promote tsunami preparedness by activity involving the public, community leaders and national and local emergency management agencies, India is the first country to establish an early warning system for tsunami detection, while Odisha is the first state in the country to get Tsunami Ready recognition.

The Sumatra earthquake and tsunami are considered to be an eye-opener for India. Which of the following statements justifies this?

Options:

- a. After the unprecedented earthquake, India became the first country to establish an early warning system for tsunami detection.
- b. The tsunami was the unprecedented natural disaster that opened the eyes of the world.
- c. No such natural disaster has taken place after the Sumatra earthquake and tsunami.
- d. After the earthquake UNESCO promoted tsunami preparedness by actively involving the public, community leaders and national and local emergency management agencies.

Answer: A

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Question 17:

Read the following sentence and select the most appropriate option to fill in the blanks:

An \_\_\_\_\_ is generally uncomfortable engaging in activities that require cooperation with other people and prefers \_\_\_\_\_ or at most of the company of one to a crowd

- a. Ingenuous, isolation
- b. Extrovert, gathering
- c. Ambivert, loneliness
- d. Introvert, solitude

Answer - D

Question 18: For the four sentences (S1 to S4) paragraph below, sentence S1 and S4 are given. From the options P, Q, and R choose the appropriate sentences for the given passage:

S1. Research suggests that the price is of products and advertisements motivate consumers to try out new products

S2.

S3.

S4. Above all, the credibility of the source of the advertised messages affects the consumers judgement of performance risk associated with the product's risk.

P. The conflicting findings may be due to nature of advertisements

Q. The relationship between price and perceived performance risk is also impacted by the presentation of an advertised messages

R. A relatively high price will reduce the consumers perception of performance risk

Options

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

Answer: RQ

### Question 19:

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

S1. Meditation is a good practice if done religiously

S2.

S3.

S4. True or not, a subtle and untainted mind is surely a breeding ground for unlimited possibilities

P. It is believed to give you immense clarity of Mind

Q. Some believe that Meditation can give you some supernatural powers too

R. Metaphysics is the branch of philosophy that examines the nature of reality, the relationship between mind and matter, possibility and actuality

Options

- a. PQ
- b. PR

Answer: PQ

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**Question 20:** There are many hobbies that one can practice for leisure..

Travelling for exploration can be one of them. 1. \_\_\_\_\_ hobbies one can practice nevertheless is the most expensive too, as now a days the airfares are 2. \_\_\_\_\_. However, one can still explore cheaper options and nearby destinations for travelling.

Blank 1. A. nourishing B. glorifying C. dissatisfying D. fulfilling

Blank 2. A. distributing B. refunding C. decreasing D. skyrocketing

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

Answer - C

**Question 21:** Read the passage given below and answer the questions that follow

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

**Most** of the earth is covered with undrinkable water. Oceans cover 70% of Earth's surface and account for about 97% of all water. The average salt content of ocean water is 35 parts per thousand, which is about 120 million tons of salt per cubic mile of seawater.

Where does all the salt come from? It comes mostly from the land. As rain forms and falls through the air, it accumulates carbon dioxide from the atmosphere and becomes slightly acidic. It then flows over the land, necrociting rocks and picking up small amounts of salt and other dissolved minerals. At this point, the water is still fresh and drinkable. Once this water flows into the ocean, some of the dissolved minerals are removed from it by biological

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processes, but the salt remains. Additional salt is contributed by underwater hydrothermal and volcanic activity.

The idea that salt was gradually deposited in the sea by rivers was first suggested by Edmond Halley. He proposed that the salinity of seawater could be used to determine the age of the ocean. Based on this theory Physicist Johnny Jolly came up with an estimate of 90 million years, which was later calculated to be 4 billion years with the use of advanced technology. Hailey's scheme had a flaw. He failed to account for the fact that some sea salt gets concealed in the form of mineral deposits on the seafloor.

Question: Why was John Jolly's estimate of the age of the oceans revised?

Options

- a. Because the new estimate was calculated after a substantial time
- b. Because John Jolly's estimate accounted for the salt deposited on the seafloor
- c. Because the precision of advanced technology used yielded a far greater age
- d. Because John Jolly did not follow Hailey's scheme to perform calculations.

Answer - C

Question 22:

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

No one knows for sure what \_\_\_\_\_1\_\_\_\_\_ yawning serves. Some say it is a sign of stress, and others say it is an indication of boredom. Scientists usually thought it was meant to increase the amount of oxygen in the body or to \_\_\_\_\_2\_\_\_\_\_ excess carbon dioxide from the body. But they did not explain why, when one person in a room yawns, the others start yawning too.

Blank 1: A. basis B. point C. purpose D. intention

Blank 2: A. liberate B. release C. deliver D. free

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

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

Answer - C

Question 23: Select the most appropriate to fill in the blanks:

“Horror movies” have a huge fan base around the world including children \_\_\_\_\_ they believe that the ghastly faces of the ghost, eerie sound effects and chilly background settings of the horror movies create permanent impressions on a child’s mind \_\_\_\_\_. Later in life, it might happen that these impressions may come to haunt the imagination whenever one is subjected to any fearful emotions.

- A. Horror movies give an adrenaline rush to the viewer, hence they are loved so much. B. However some psychologists are of the opinion that children should not be exposed to horror movies at all.
- C. Watching such ghastly faces might give an adrenaline rush in the beginning but those impressions are forgotten,

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

Answer: A

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Question 24:

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

You cannot drive a vehicle. You should have a driving licence.

Options:

- a. You cannot drive a vehicle unless you have a driving licence.
- b. You cannot drive a vehicle because you have a driving licence
- c. You cannot drive a vehicle, but you should have a driving licence
- d. You cannot drive a vehicle, though you should have a driving licence

Answer: a

### Reasoning Ability

Question 1. Which is the wrong term in the following series:

BEG,DGI,GJL,KMP,PSU

- 1.DGI
- 2.PSU
- 3.GJL
- 4.KMP

Answer - Option - d- KMP

Question 2.

Which is the wrong term in series

Cab, gef, ljk, rpq, xvw

Option

- A. rqp
- B. ljk



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- C. xvw
- D. gef

Answer- Option - C - xvw

Question 3:

Six movies are played on six consecutive days of week, starting from Monday. Rambo is played after Diago. Noorie is telecast between Diago and Akira. Blayed is played immediately after Hungamma but before Akira. Which movie is played on Tuesday?

- A. Akira
- B. Noorie
- C. Blade
- D. Hungamma

Answer - Option C

Question 4:

In each of the four 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. LOCK - QYAN
- b. MATE - LGHT
- c. LOCK - OLFH
- d. MATE - PXWB

Option

- A. C and D
- B. A and B
- C. A and D
- D. B and D

Answer: Option A

Question 5:

Which of the option figures would come next in the following figure series

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Option

A.



B.



C.



D.



Answer - Option B

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Question 6:

In a certain code if :

A-B means A is wife of B.

A/B means A is brother of B.

A+B means A is daughter of B.

A\*B means A is son of B.

Which of the following expression represents that D is the father of B?

1. B/I-D\*K
2. B\*D/K-I
3. I-K/D+B
4. B/D+I-K

Answer - Option - B - B\*D/K-I

Question 7: Given below is a question followed by 2 statements

Who among A, B, C and D is tallest.

1. A is the shortest.

2. D is shorter than only C.

1. If statement 1 is alone sufficient to answer the question (not clear)
2. If question can be answered by either of the statement 1 or statement 2.
3. If statement 1 and 2 together are not sufficient to answer the question.
4. Statement 2 is alone sufficient to answer the question.

Answer - Option - 4

Question 8: In Ipl 2020, Sachin expected that Mumbai Indian wins more than 3 but less than 7.

Veeru expected that Mumbai Indians wins more than 5 but less than 8 matches. If the both of them are correct then how many matches can Mumbai Indians win?

- A. 6
- B. 4
- C. 7
- D. 5

Answer - Option - A- 6

Question 9:

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

Six persons A, B, C, D, E and F are sitting around a circular table facing towards centre. Who sits second to the right of D

- I. C and D are immediate neighbours and C is sitting opposite B
- II. A is not a neighbour of E, but is a neighbour of B
- III. D is not a neighbour of A, but is second to the right of F

Option

- A. Only I and II
- B. Only II and III
- C. Only I and III
- D. All three together

Answer : A. Only I and II

Question 10:

A statement is followed by three assumptions numbered I and II. Consider the statement and decide which of the given assumption(s) is/are implicit in the statement.

Statement

A trader in XYZ city said, “ We will offer a 5% discount on the total purchase of ration, if the buyer shows the certificate of being vaccinated against the deadly virus.”

Assumptions:

- I. The traders in other cities will also take up similar initiatives.
- II. People in general are very neglectful in getting vaccinated.

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

III. The trader intends to sell a huge stock of ration lying in his shop for a long period of time.

Options:

- a. All I, II and III are implicit.
- b. Only II is implicit.
- c. Only III is implicit.
- d. Only I and II are implicit.

Answer - Option - A

Question 11: In a certain code if :

X@Y means X is the son of Y

X#Y means Y is the wife of X

X\$Y means X is the husband of Y

X%Y means Y is the daughter of X

X+Y means Y is the father of X

X&Y means X is the mother of Y

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

H@O% S +T @A#L

- A. L is wife of A
- B. H is daughter of A
- C. S is son of L.
- D. S is the son of law of T

Answer - A. L is wife of A

Question 12: Find the WRONG term in the letter cluster series given below.

RPF, WUK, TRH, YMW, VTJ

- A. WUK
- B. VTJ
- C. YMW
- D. TRH

Answer: Option C.

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

Question 13:

In a certain code:

A \$ B means 'A is the sister of B'.

A @ B means 'A is the mother of B'.

A \* B means 'A is the daughter of B'.

A # B means 'A is the father of B'.

A % B means 'A is the husband of B'.

If P#Q%R\*S@T\$W, which of the following is definitely TRUE?

Options:

- a. P is the father-in-law of T.
- b. Q is the uncle of W.
- c. W is the niece of Q.
- d. T is the sister-in-law of Q.

Answer: Option: D. T is sister-in-law of Q

Question 14: Given below is a 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

Six persons named Ishi, Jolly kitty, Dinky, Emi and Ferry are sitting in a row facing North, but not necessarily in the same order. Who is sitting in the right end of the row ?

- I. Jolly is sitting exactly between Dinky and Ishi , who is sitting exactly between Kitty and Ferry.
- II. There are exactly two persons sitting between Kitty and Ferry, who is to the left of Ishi . Dinky is sitting to the immediate right of Kitty and is to the immediate left of Jolly.

- A. Either statement I alone or II alone is sufficient
- B. Statements I and II also are not sufficient.
- C. Statement I and II are sufficient.
- D. Statement II alone is sufficient.

Answer: Option C

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

Question 15: There are 9 sports person belonging to three different categories:

- i.Players- A,C and E
- ii.Atheletes- B,D,F
- lii. Wrestlers- G,H and J

A team of three has to be selected with one sports person from each category subject to the following conditions :

- A, H will always be together
- C cannot be paired with G or F
- E and J will always be together but E cannot go with B.

Which of the following can be acceptable team?

- A. DEJ
- B. BEJ
- C. BCD
- D. ABG

Answer - Option - A

Question 16:In each of the four pairs of cluster , the letter in the second term are in rearranged/transform form of the letter from (not clear)

- [A] MASTER-RTSMAF
- [B] POSTAL- LTOPSA
- [C] HASTEN - NTSAHE
- [D] FATHER - RHAFTE

- 1. B and C
- 2. B and D
- 3. A and C
- 4. A and C

Answer: Option C

Question 17:

If P, Q, R, S, T, U,V, W and X are nine industries. R is 2km to the east of Q. P is 1km to the north of Q and W is 2km to the south of P. V is 1km to the west of W, while S is 3 km to the east of V.

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

U is 2km to the north of V. X is situated exactly between Q and R while T is exactly between W and S.

What is the distance between P and U?

Options:

- a. 3km
- b. 2km
- c. 1.41km
- d. 1km

Answer: Option d - 1 km

Question 18:

Seven coloured balls - Violet,Purple,Blue,Green,Yellow,Orange and Red are put together in a row during a game. Yellow ball is to the immediate left of Purple ball but Violet is to the left of Blue but not between Blue and Purple. Exactly four balls are between Blue and Purple. If Violet and Green have two balls between them, how many balls do Orange and Red have between them?

Options:

- a. 1
- b. 0
- c. 2
- d. 3

Answer - Option - B

Question 19:In a certain code if:

X@Y means X is the son of Y

X#Y means X is the wife of Y

X\$Y means X is the husband of Y

X%Y means X is the Daughter of Y

X+Y means X is father of Y

X&Y means X is mother of Y

Which of the following is correct conclusion drawn from the expression:

H @ O % S+T@A#L

- a. L is wife of A
- b. S is son of L



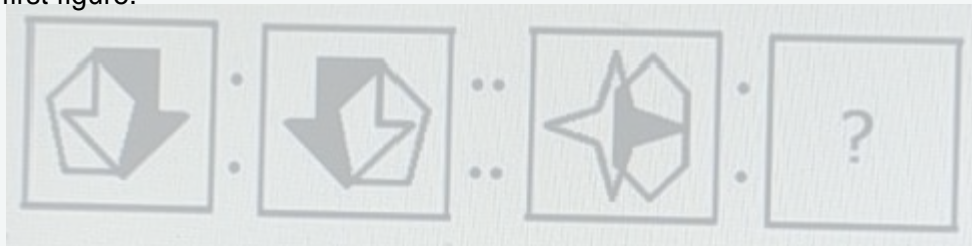
## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

- c. S is son in law of T
- d. H is daughter of A.

Answer: Option C

Question 20:

Select the option that is related to the third figure in the same way second figure is related to the first figure.



a.



b.



c.





d.

Answer - Option A

Question 21.

Given below is a 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.

What is the average age of the father, mother and son?

Statement:

- I. The ratio of the age of the mother and son is 5:3. Father is 4 years older than the mother, who was as old as the son 22 years ago.
- II. The son is now as old as the father was 26 years ago. The average age of the father and mother is 57 years.

Options:

- a. Statement II alone is sufficient.
- b. Both the statements I and II are necessary.
- c. Statement I alone is sufficient.
- d. Both the statements I and II together are not sufficient.

Answer: Option C

Question 22: Eight person, designated alphabetically from A to H, are sitting around a square table facing the center with two persons sitting on each side of the table. A is facing G, who is immediate left to F, B who is adjacent to A, is facing C who is immediate right to E. Dis facing F  
Which two person are sitting A and E?

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

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

Answer: Option C

Question 23: Given below is question followed by three statements 1, 2 and 3. Each containing some information. Decide which of the statements is correct:

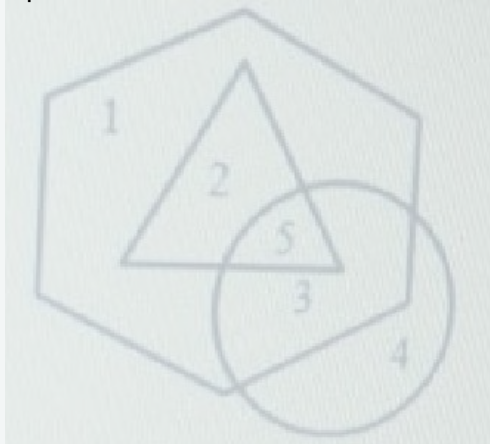
Six persons A, B, C, D, E and F seating around a circular table facing to centre. Who sits second to the right of D.

1. C and D are immediate neighbour and C is sitting opposite to B.
  2. A is not a neighbour of E, but is a neighbour of B.
  3. D is not a neighbour of A, but is a second to the right of F.
- a. Only 1 and 2
  - b. Only 1 and 3
  - c. All three together
  - d. Only 2 and 3

Answer - Option B

Question 24:

In the following figure, Hexagon represents Animals, Triangles Represents Pets and Circle represents wild. Which set of numbers represent wild which are both pet and animals?



- a. 2
- b. 3
- c. 1
- d. 5

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

Answer: Option D

Question 25:

Every year 20% of the employees leave a company between 1st and 15th december for other jobs. The company recruits 100 new employees every month of january. 276 employees left the company by 15th december 2020. How many employees were there in the company in the last week of december.

- A. 1600
- B. 1750
- C. 1440
- D. 1500

Answer: Option C

Question 26:.

Following is the data regarding the number of students in each section out of 3 sections: A, B and C in standards; V, VI and VII.

There are 440 students in total in the 3 standards. In standard V, 40% of the students are from section B and 40 students are from section A.

The ratio of the number of section B students in standard V to that in standard VI is 10:11.

In standard VI, there are 4 more students in section C than in section A,

There are 160 students in standard VI.

There is 1 more student in section C, of standard V than in section C of standard VI.

The average number of section A and section C students in standard VII is 43.

The ratio of total number of section A students to total number of section C students is 4:5.

For the 3 standards combined, what is the difference between the total number of section B students and the average number of section A and C students?

Options:

- a. 35
- b. 30
- c. 40
- d. 45

Answer:

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Question 27: Given below is a question followed by two statements 1 and 2. Each containing some information. Decide which of the statements is correct:

Among five objects A, B, C, D and E, which is the lightest?

Statements:

1. E is half as heavy as C and B is twice as heavy as D. C and D together weigh as much as A and E together.
  2. D is half as heavy as B and C is twice as heavy as E. A and B together weigh as much as D and E together.
- a. Statement 1 alone is sufficient.
  - b. Either statement 1 alone or statement 2 alone is sufficient.
  - c. Statement 2 is sufficient.
  - d. Both statements 1 and 2 together are not sufficient.

Answer: Option D

Question 28: Given below is the question followed by two statements I and II, each containing some information. Decide which of the following statement(s) is/are sufficient to answer the question. What is the average age of father, mother and son?

Statements

- I. The ratio of the age of the mother and son is 5:3. Father is 4 years older than the mother, who was as old as the son 27 years ago.
  - II. The son is now as old as the father was 26 years ago. The average age of the father and mother is 57 years.
- A. Statement II alone is sufficient.
  - B. Both the statement I and II are necessary.
  - C. Statement I alone is sufficient.
  - D. Both the statements I and II together are not sufficient.

Answer: Option C

Question 29: The production by a company 'xyz' in the year 1997 was double than that in the year 1995 where the production in 1995 was 30000. The production in the years 1996, 1998, 1999 and 2000 were 46000, 70000, 50000 and 80000 respectively.

For how many years was the production more than the average production of the given years?

Options:

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- a. 2
- b. 4
- c. 1
- d. 3

Answer: Option D

Question 30:

Which of the following numbers will appear on the face opposite to the face with number 2?



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

Answer: Option D

## Programming Logic

### Question 1:

What will be the following code?

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int x=1,y=1;
```

```
    if(y<0)if(y>0) x=3;
```

```
    else x=5;
```

```
    printf("%d",x);
```

```
    return 0;
```

```
}
```

A. 1

B. 0

C. True

D. False

Ans:- 1

**Question 2:** What is the output of the following pseudo code?

```
Integer_length;
```

```
String_sentence;
```

```
Set_sentence="mobile"
```

```
_length=length(_sentence)
```

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`print(_length^1)`

Note: ^ is bitwise exclusive OR operator

- A) 6
- B) 7
- C) 1
- D) 5

Ans:  $6^1=7$

### Question 3:

What is the output of the following code?

```
#include <iostream>
int main()
{
    int digit=8 ;
    printf("%d",digit<<1);
    return 0;
}
```

- A. 8
- B. -8
- C. 16
- D. -16

Ans:- c)16

### Question 4:

```
#include <stdio.h>
int function1(int,int);
int main()
```



## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

```
{  
int a=10,b=10;  
printf("%d",function1(a,b));  
    return 0;  
}  
int function1(int a , int b)  
{  
    return(a-(a==b));  
}
```

- A. 0
- B. 9
- C. Not visible
- D. Not visible

Ans:- B) 9

### Question 5:

From the following options which of the following is not data structure?

- a) Graph
- b) Array
- c) Union
- d) enqueue

Ans: enqueue

**Question 6:** Which of the below sequence do not depict the tree?

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]



- a) First element → 2,3,7,9,5,8 → last element
- b) First element → 7,2,3,9,5,8 → last element
- c) First element → 7,9,3,2,5,8 → last element
- d) First element → 7,2,3,5,8,9 → last element

Ans: C

### Question 7:

What will be the output of the following code

```
#include <iostream>
using namespace std;
int main()
{
    int a=5,b=0,c=15,d=20,e=0;
    while(a<b)
    e=(a+c)*d+c;
    cout<<e<<" "<<b;
    return 0;
}
```

- A. 420 0
- B. 0 0
- C. 420 10
- D. 0 10

Ans:- B) 0 0

**Question 8:** What will be the output of below infix code to postfix?

H/I+J\*(K\*L)

- A) HIJKL/\*\*+
- B) /HIJKL\*\*+
- C) HI/JKL\*\*+
- D) HIJKL\*\*+/

Ans: C

**Question 9:**

What is the output of the below code?

```
#include <iostream>

using namespace std;
int main()
{
    int num=5,i;
    long int result=1;
    for(i=num;i>(num-num);i--){
        result=result*i;
    }
    printf("%d",result);
    return 0;
}
```

- A. 0
- B. 60
- C. 120
- D. Compile error

Ans:- 120

**Question 10:** How many iterations are required for searching the element 36 using binary search for the below set?

2,6,12,23,25,33,35,36,36,36,43,47,52,63,65,79

- A) 6 iterations
- B) 5 iterations
- C) 7 iterations
- D) 1 iterations

Ans: 1 iteration (Length=16, so  $16/2=8$ , 8 element=36, found. Stop iteration)

### Coding

**Question 1:**

A party has been organised on cruise. The party is organised for a limited time(T). The number of guests entering (E[i]) and leaving (L[i]) the party at every hour is represented as elements of the array. The task is to find the maximum number of guests present on the cruise at any given instance within T hours.

Example 1:

Input :

5 -> Value of T

[7,0,5,1,3] -> E[], Element of E[0] to E[N-1], where input each element is separated by new line

[1,2,1,3,4] -> L[], Element of L[0] to L[N-1], while input each element is separate by new line.

Output :

8 -> Maximum number of guests on cruise at an instance.

Explanation:

1st hour:

Entry : 7 Exit: 1

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

No. of guests on ship : 6

2nd hour :

Entry : 0 Exit : 2

No. of guests on ship :  $6-2=4$

Hour 3:

Entry: 5 Exit: 1

No. of guests on ship :  $4+5-1=8$

Hour 4:

Entry : 1 Exit : 3

No. of guests on ship :  $8+1-3=6$

Hour 5:

Entry : 3 Exit: 4

No. of guests on ship:  $6+3-4=5$

Hence, the maximum number of guests within 5 hours is 8.

Example 2:

Input:

4 -> Value of T

[3,5,2,0] -> E[], Element of E[0] to E[N-1], where input each element is separated by new line. -

[0,2,4,4] > L[], Element of L[0] to L[N-1], while input each element in separated by new line

Output:

6

Cruise at an instance

Explanation:

Hour 1:

Entry: 3 Exit: 0

No. of guests on ship: 3

Hour 2:

Entry : 5 Exit : 2

No. of guest on ship:  $3+5-2=6$

Hour 3:

Entry : 2 Exit: 4

No. of guests on ship:  $6+2-4= 4$

Hour 4:

Entry: 0 Exit : 4

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

No. of guests on ship :  $4+0-4=0$

Hence, the maximum number of guests within 5 hours is 6.

The input format for testing

The candidate has to write the code to accept 3 input.

First input- Accept value for number of T(Positive integer number)

Second input- Accept T number of values, where each value is separated by a new line.

Third input- Accept T number of values, where each value is separated by a new line.

The output format for testing

The output should be a positive integer number or a message as given in the problem statement(Check the output in Example 1 and Example 2)

Constraints:

$1 \leq T \leq 25$

$0 \leq E[i] \leq 500$

$0 \leq L[i] \leq 500$

### Solution in Java:

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

        for(int i=0;i<t;i++)
            e[i]=sc.nextInt();

        for(int i=0;i<t;i++)
```

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

```
l[i]=sc.nextInt();

int max=0,sum=0;
for(int i=0;i<t;i++)
{
    sum+=e[i]-l[i];
    max=Math.max(sum,max);
}
System.out.println(max);
}
```

### Question 2:

At a fun fair, a street vendor is selling different colours of balloons. He sells N number of different colours of balloons (B[]). The task is to find the colour (odd) of the balloon which is present odd number of times in the bunch of balloons.

Note:

If there is more than one colour which is odd in number, then the first colour in the array which is present odd number of times is displayed. The colours of the balloons can all be either upper case or lower case in the array. If all the inputs are even in number, display the message "All are even".

Example 1:

7 -> Value of N

[r,g,b,b,g,y,y] -> B[] Elements B[0] to B[N-1], where input each element is separated by new line.

Output :

r -> [r,g,b,b,g,y,y] -> "r" colour balloon is present odd number of times in the bunch.

Explanation:

From the input array above:

r: 1 balloon

g: 2 balloons

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

b: 2 balloons

y : 2 balloons

Hence , r is only the balloon which is odd in number.

Example 2:

Input:

10 -> Value of N

[a,b,b,b,c,c,c,a,f,c] -> B[], elements B[0] to B[N-1] where input each element is separated by new line.

Output :

b-> 'b' colour balloon is present odd number of times in the bunch.

Explanation:

From the input array above:

a: 2 balloons

b: 3 balloons

c: 4 balloons

f: 1 balloons

Here, both 'b' and 'f' have odd number of balloons. But 'b' colour balloon occurs first.

Hence , b is the output.

The input format for testing

The candidate has to write the code to accept: 3 input

First input: Accept value for number of N(Positive integer number).

Second Input : Accept N number of character values (B[]), where each value is separated by a new line.

The output format for testing

The output should be a single literal (Check the output in example 1 and example 2)

Constraints:

$3 \leq N \leq 50$

$B[i] = \{a-z\} \text{ or } \{A-Z\}$



## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

### Solution in Java:

```
import java.util.*;
class Solution
{
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        int n=sc.nextInt();
        char arr[]=new char[n];
        for(int i=0;i<n;i++)
            arr[i]=sc.next().charAt(0);
        int lower[]=new int[26];
        int upper[]=new int[26];

        for(int i=0;i<n;i++)
        {
            if((arr[i]>='A') && (arr[i]<='Z'))
                upper[arr[i]-'A']++;
            else if((arr[i]>='a') && (arr[i]<='z'))
                lower[arr[i]-'a']++;
        }
        boolean flag=false;
        char ch='\0';
        for(int i=0;i<n;i++)
        {
            if((arr[i]>='A') && (arr[i]<='Z'))
            {
                if(upper[arr[i]-'A']%2==1)
                {
                    ch=(char)(arr[i]);
                    flag=true;
                    break;
                }
            }
            else if((arr[i]>='a') && (arr[i]<='z'))
            {
                if(lower[arr[i]-'a']%2==1)
```

## TCS NQT Solved Paper - 13th Sept 2021 [Slot 1]

```
        {
            ch=(char)(arr[i]);
            flag=true;
            break;
        }

    }

}
if(flag==true)
    System.out.println(ch);
else
    System.out.println("All are even");
}
```