

TCS Ninja Numerical Ability Questions

Q1. What is the remainder when 13^{83} is divided by 11?

- A. 6
- B. 3
- C. 8
- D. 5

Answer: B

Q2. If $p = (\sqrt{6} - \sqrt{5})$ and $q = (\sqrt{10} + \sqrt{3})$, then what is the value of $(p^2 + q^2)/6$?

- A. 9
- B. 6
- C. 4
- D. 3

Answer: C

Q3. What will come in place of the question mark (?) in the following question?

$$16^{10} \times 2^7 = 8^8 \times 32^4 \blacksquare$$

- A. 5
- B. 2
- C. 4
- D. 3

Answer: C

Q4.

If $x \left(3 - \frac{2}{x} \right) = \frac{3}{x}$ then what is the value of $\left(x^3 - \frac{1}{x^3} \right) - \left(x^2 + \frac{1}{x^2} \right)$

- A. -4/27
- B. -8/27
- C. -16/81
- D. -2/9

Answer: A

Q5. In measuring time using a device the percentage error is 0.1%. What will be the percentage error in the measurement of square of a time interval by using the same device, when the CORRECT value (in second square) is 16?

- A. 0.2001
- B. 0.201
- C. 0.2002
- D. 0.2004

Answer: D

Q6. A Shopkeeper has initially 400 Cookies. He sold 15% Cookies to Bindhu, 20% more Cookies than Bindhu to Preet, 40% Cookies to Raju and remaining Cookies to Karan. How many Cookies did Karan buy?

- A. 108
- B. 112
- C. 96
- D. 84

Answer: A

Q7. A shopkeeper incurs a loss of Rs. 90 if he marked up the price of an article by 10% and offered x% discount. He gains Rs. 70 on the same article if he exchanges the marked price with discount percent. Find the value of x?

- A. 50
- B. 25
- C. 60
- D. 40

Answer: A

Q8. A lady bought two sarees of Rs. 2000 each. She sold one at a loss of 10% and the other at a profit after offering a discount of 5%. She incurred an overall loss of 3.7%. What percentage above the cost price was the marked price of the second saree?

- A. 4
- B. 8
- C. 3.2
- D. 3.6

Answer: B

Q9. Mahendra invested certain amount in scheme for $3\frac{1}{5}$ years at $24\frac{1}{2}\%$ Simple Interest, and the interest amount received is Rs. 11760. For how much more time must he invest his capital to obtain Rs. 5880 more interest?

- A. 1.2 years
- B. 1.5 years
- C. 1.6 years
- D. 1.8 years

Answer: C

Q10. What is the interest (in Rs.) on Rs. 20 lakhs, at the rate of 4%, compounded annually of 27 months?

- A. 393424
- B. 384176
- C. 276168
- D. 356128

Answer: 184514.89 (Options are wrong)

Q11. If $a:b = 5:7$ and $1/c:1/b = 8:9$; which among the following represents $a:b:c$?

- A. 40:63:56
- B. 20:35:24
- C. 40:56:63
- D. 20:24:35

Answer: C

Q12. The respective ratio between the present daily wages of a Harsh and Pankaj is 7:8. After 8 years, this will be 9:10 respectively. If at the time of joining, the ratio of their wages was 11 :13 respectively, how many years ago they were joined the work?

- A. 4
- B. 8
- C. 10
- D. 6

Answer: D

Q13. X, Y, Z started a partnership business by investing capitals in the proportion 4:5:8. At the end of the business term, the profits earned by Y, Z, X turned out to be in the proportion 8:9:12. What was the proportion of the periods for which the investments were made by Z, X, Y?

- A. 18:45:25
- B. 3:5:4
- C. 48:75:50
- D. 45:120:64

Answer: D

Q14. A and B, working alone, can do a work in 8 and 5 days respectively. They work together and a total payment of Rs. 6500 is made to them. What is the share (in Rs.) of B?

- A. 3900
- B. 2500
- C. 4000
- D. 2600

Answer: B

Q15. 12 girls can complete a work in 21 days. 7 boys can finish the three-fifths of the same work in 30 days. Find the time taken by 3 girls and 1 boy to complete the $(\frac{31}{42})$ th of the work?

- A. 30 days
- B. 45 days
- C. 50 days
- D. 60 days

Answer: 50

Q16. A person has to cover 720km distance. If he decreases his speed by 12 km/h, he reaches 2 hr late. Find the ratio of his initial and final time to reach the destination respectively.

- A. 4:5
- B. 7:9
- C. 5:6
- D. 6:7

Answer: C

Q17. A motor cyclist sets out for a journey of length 50km. After 42 mins it is observed that he has covered $\frac{7}{18}$ of the remaining distance. With how much speed should he travel the remaining distance, so that his average speed for the entire journey is 31.25 km/h?

- A. 45
- B. 36
- C. 40
- D. 30

Answer: C

Q18. The difference between two numbers is 76. Thrice the smaller number is less than the larger number by 37.5% of the smaller number. What is the larger number?

- A. 108
- B. 120
- C. 126
- D. 102

Answer: A

Q19. A hollow ,metallic cube of uniform thickness 1 cm, and outer edge 10cm melted and recast for getting it into a solid spherical shape. But in the process only $\frac{11}{21}$ of the material could be recovered. Then what is the radius (nearest to integer in cm) of the spherical shape so obtained (Take $\pi = \frac{22}{7}$)

- A. 3
- B. 5
- C. 4
- D. 6

Answer: A

Q20. The difference between the circumference and the radius of a circular playground is 185cms. If one fence is needed around the ground, what will be the cost of fencing if the price for fencing is Rs. 12 per cm?

- A. Rs. 2720
- B. Rs. 2160
- C. Rs. 2280
- D. Rs. 2640

Answer: D

Q21. The range of the data 10, 8, 12, 23, 18, 35, 56, 82, 49 and 76 is how much less than its maximum value?

- A. 9
- B. 10
- C. 8
- D. 12

Answer: C

Q22. The sum of the consecutive even numbers is 240. What is the least number of another set of seven consecutive even numbers whose average is the second highest number of the given set?

- A. 44

- B. 72
- C. 68
- D. 66

Answer: A

Q23. If x is the arithmetic mean of the first 4 prime numbers, Y is the arithmetic mean of the first 4 composite numbers and Z is the arithmetic mean of the first 4 multiples of 11 then, find the mode of the following numbers.

7, 3, 9, 11, 3, X , Y , Z , 9, 7, 8 and 7

- A. 11
- B. 7
- C. 9
- D. 3

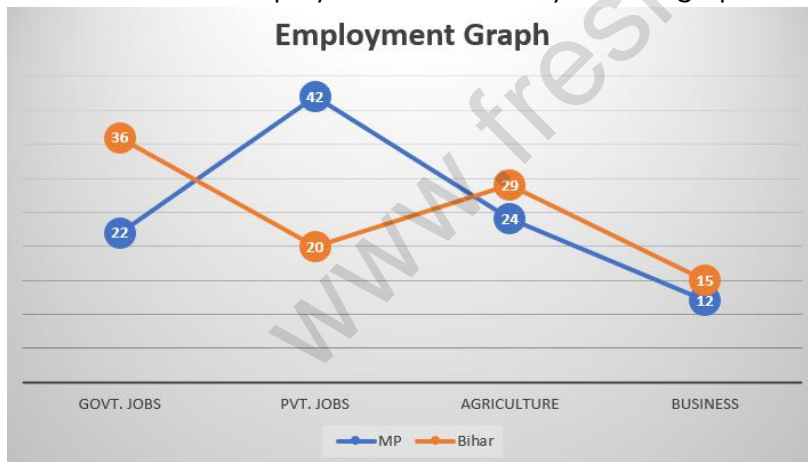
Answer: B

Q24. The cost of one share of 6 different companies is Rs. 46, Rs. 42, Rs. 51, Rs. 43, Rs. 40 and Rs. 53 respectively. How much more is the mean deviation about the median of the given costs than the mean of the costs?

- A. 43.83
- B. 41.67
- C. 45.83
- D. 46.33

Answer: B

Q25. The following line graph represents the percentage distribution of people of Madhya-Pradesh and Bihar in different employment areas. Study the line graph carefully and answer the question.



If the population of Madhya-Pradesh and Bihar is same, how much more is the number of people doing private job in Madhya Pradesh than the number of people doing business in Bihar?

- A. 180%
- B. 225%
- C. 160%
- D. 200%

Answer: A

TCS Ninja Verbal Ability Questions

Q1. One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.

Everyone has been talking about how well he plays a guitar.

- A. No error.
- B. Everyone has been talking
- C. about how well
- D. he plays a guitar.

Answer: D

Q2. One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.

The art of good film-making lies into knowing where to focus your camera.

- A. where to focus your camera.
- B. lies into knowing
- C. No error
- D. The art of good film-making

Answer: B

Q3. One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.

By analysing the sediment from the Bay of Bengal, researchers are finding that the present Indian monsoon system dates back at least 27 million years.

- A. that the present Indian monsoon system
- B. researches are finding
- C. dates back at least 27 million years
- D. By analysing the sediment from the Bay of Bengal,

Answer: B

Q4. Complete the given sentence by filling in the blanks with the most appropriate pair of words from the options given.

Delhi's Indira Gandhi International airport is likely to throw open _____ fourth runway for operations in September _____ year.

- A. the / that
- B. its / this
- C. their / previous
- D. its / last

Answer: B

Q5. Select the most appropriate option to fill in the blank

I wish someone _____ me to buy some sugar when we were all in the shop.

- A. remind
- B. would remind
- C. reminds
- D. reminded

Answer: B

Q6. Read the following paragraph and fill in the blanks by selecting the appropriate words.

If you are a public figure and enjoy some popularity, it becomes imperative for you to ___1___ directly with your followers. This allows you to communicate your feelings and opinion candidly and ___2___ information authentically. When there is a medium between you and your fan base, information is filtered and edited without your control.

Blank 1: A. entertain B. encourage C. engage D. encounter

Blank 2: A. give B. pass C. write D. disseminate

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

Answer: D

Q7. Select the most appropriate option to fill in the blank

Not only did _____ late, but he was also completely unprepared and looked as though he had _____ that kind of task before.

- A. he came, never saw
- B. he come, never seen
- C. he is, never see
- D. he was, never seen

Answer: B

Q8. For the four-sentence (S1 to S4) paragraph below, sentence S1 and S4 are given. From the options P,Q and R, choose the most appropriate sentences for S2 and S3 respectively.

S1. With its sensational launch in 2008, IPL added a new word to India's vocabulary : "Sportainment".

S2.

S3.

S4. In addition to the economic growth, it generated employment both directly and indirectly.

P. The IPL, however has proved to be a true game-changer, with a distinct pre-and post IPL eras of sports marketing.

Q. The success of IPL proved to be catalyst for the T20 boom across the sporting world of cricket.

R. But, for India it marked the beginning of a different journey--- a journey towards becoming a sporting nation.

A. S2: P, S3:R

B. S2:Q, S3:P

C. S2:R, S3:P

D. S2:Q, S3:R

Answer: A

Q9. For the four sentence (s1 to S4) paragraph given below, sentences S1 and S4 are given. From the options P, Q and R, choose the appropriate sentences for S2 and S3 respectively.

S1. There is no denial of the fact that recycling plastic is essential but believing that it will help to save the Earth will be a misconception.

S2.

S3.

S4. The actual and grave problem is that single-use plastic is a gross abuse of advanced technology and massive production of it should be avoided at all costs

options:

P. But our effort is absolutely insufficient and distracts us from the real issue.

Q. The bigger role is played by the corporate polluters in plastic problem

R. We all make an effort to find a place to recycle our waste plastic and feel overjoyed if we succeed in doing so

A. PQ

B. QR

C. RP

D. PR

Answer: C

Q10. For the four sentence (s1 to S4) paragraph given below, sentences S1 and S4 are given. From the options P, Q and R, choose the appropriate sentences for S2 and S3 respectively.

S1. Dams that divert water out of rivers may have significant additional climate change impacts.

S2.

S3.

S4. A proposal for a dam on the Cache la Poudre River in Colorado would dry up 1,700 acres of wetlands thus emitting about 7,000 metric tons of CO2 equivalents.

Options:

P. This is because they tend to drain and dry up downstream wetland that are “carbon sinks” holding vast amounts of greenhouse gases in soils.

Q. Besides, such draining and dry-up causes carbon and methane to be released and emitted into the air.

R. When Colorado river, to site one example, was diverted the dams dried up 2 million acres of wetlands.

- A. S1:P, S2:Q
- B. S1:R, S2:Q
- C. S1:P, S2:R
- D. S1:Q, S2:R

Answer: D

Q11. You are going to read a text about counselling. 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/part that you do not need to use.

Confidence is the key to success in the sports industry. A player who sustains injury during a match may tend to lose his confidence ___1___ in such a situation a sports psychologist can help immensely ___2___. Counsellors have a better grip over the players with sports injuries. That is why they are extremely important to be included in a team.

- A. He can help clear out the mental scars and help the player restore his lost confidence
- B. He helps young athletes mental skills to enhance their performance
- C. As a result, he may not be able to perform at the same pace again

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

Answer: A

Q12. You are going to read a text. Some parts of 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 .

In recent years, there has been a growing trend among young children to rely heavily on a diet of junk food. Once addicted, _____ 1 _____ it is essential, therefore, _____ 2 _____

- A. that parents encourage healthy eating from an early age.
- B. that parents make them informed about food decisions.
- C. they find it extremely difficult to change this habit later in life.

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

Answer: D

Q13. The following sentence can be redrafted to make it read better. Choose the sentence that is the best answer.

I have been a counsellor for 5 yrs now, but I can say I have learned much more from my interactions with clients than the theories I read in books.

- A. On being a counsellor for 5 yrs now, but I can say I have learned much more from my interactions with clients than the theories I read in books.
- B. Since being a counsellor for 5 yrs now, but I can say I have learned much more from my interactions with clients than the theories I read in books.
- C. After being a counsellor for 5 yrs now, but I can say I have learned much more from my interactions with clients than the theories I read in books.
- D. Having been a counsellor for 5 yrs now, but I can say I have learned much more from my interactions with clients than the theories I read in books.

Answer: D

Q14. Which of the following sentences uses the most formal language?

- A. The Government will do everything it can to support the initiative.
- B. It had been raining cats and dogs when we returned.
- C. With the popularity of the Internet, everyone's into DIY projects now.
- D. I employed a lot of unconventional methods for the research.

Answer: A

Q15. You are going to read a text about the Sun. Some sentences are missing from the text. Choose from the list (P -R) the most appropriate sentence for each gap (1-2) in the text. There is one extra sentence that you do NOT need to use .

From the cosmological studies of the structure of stars, we realize that, since its beginnings, the sun's brightness has slowly increased by about 30% ___1___ That is, if the Sun were even a few percentage points less bright in the past, the Earth might have been covered by ice. _____ 2 _____ Although many theories have been proposed against the Earth's ability to evade the "weak youthful Sun" issue, but how the Earth really got away from the ice fiasco remains dubious.

- P. These volcanic aerosols spread north and eventually decreased the atmospheric transmission over a large part of the terrain and helped maintain conditions temperature and pressure.
- Q. This alarming change has raised the so-called young-sun climate issue.
- R. In this frozen state, it probably wouldn't have warmed up because the ice would reflect the greater part of the emergent sun-rays back into space.

- A. 1-P, 2-R
- B. 1-Q, 2-R
- C. 1-R, 2-Q
- D. 1-R, 2-Q

Answer: D

TCS Ninja Reasoning Ability Questions

Q1. Which is the WRONG term in the following series?

SBNQ, UEMO, WHLM, YKKJ, ANJI

- A. WHLM
- B. YKKJ
- C. UEMO
- D. ANJI

Answer: B

Q2. In each of the four pairs of letter-clusters, the letters in the second term are in a rearrange/transformed form of the letters from the first term in a particular pattern. In which two pairs, has the transformation been done the same way?

- [A] TUESDAY - DAYTUES
- [B] FRIDAY - RFDIAY
- [C] MONDAY - OMDNAY
- [D] THURSDAY - TUSADYHR

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

Answer: B

Q3. Given below is a 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.

Amongst five friends seated in a straight line facing North, is Q sitting at extreme left end?

1. Q, S are immediate neighbours of each other. Similarly, T, R are also immediate neighbours of each other. P sits exactly in the middle of the line.
2. P who sits exactly in the middle of the line is second to the left of R. Q is not an immediate neighbour of P.

- A. The data in statement I alone is sufficient to answer the question, while the data in Statement II alone is not sufficient to answer the question.
- B. The data in Statement II alone is sufficient to answer the question, while the data in Statement I alone is not sufficient to answer the question.
- C. The data either in Statement I alone or in Statement II alone are sufficient to answer the question.
- D. The data in both the statements I and II are not sufficient to answer the question

Answer: B

Q4. Given below is a 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.

A, B, C and D have different heights and weights. Who is the heaviest among them?

Statements:

I. The heaviest person is also the 2nd shortest. A is heavier than C, who is shorter than B but not shortest and D is the lightest.

II. The 2nd shortest person is the heaviest person. C is lighter than B, who is the tallest. A is heavier than D.

A. I alone is sufficient but II alone is not sufficient.

B. II alone is sufficient but I alone is not sufficient.

C. Either statement I or II alone is sufficient.

D. Both the statements together are necessary.

Answer: C

Q5. Given below is a question followed by three statements I, II and III, each containing some information. Decide which of the given statements is CORRECT.

Who amongst P,Q,R,S and T is the third youngest person?

I. Q is the second eldest person.

II. Neither P nor R is the youngest, and P nor R is the youngest, and P is not the eldest.

III. S is the second youngest person.

A. If the data in statements II and III are sufficient to answer the question, while the data in statement I is not required to answer the question.

B. If the data in statements I and II are sufficient to answer the question, while the data in statement III is not required to answer the question.

C. If the data in all the statements I, II and III together are necessary to answer the question.

D. If the data in statements I and III are sufficient to answer the question, while the data in statement II is not required to answer the question.

Answer: C

Q6. Biswas is the father of Tilak. Biswas has only two children. Tilak is the brother of Rani. Rani is the daughter of Pratiksha. Anvi is the granddaughter of Pratiksha. Shoban is the father of Anvi. Rani is married to Shoban. How is Shoban related to Tilak if '%' is son, '\$' is son-in-law, '*' is brother, '&' is brother-in-law?

A. *

B. \$

C. %

D. &

Answer: D

Q7. In a certain code, if:

Q @ R means R is the daughter of Q.

Q # R means R is the son of Q.

Q \$ R means R is the sister of Q.

Q % R means Q is the brother of R.

Q + R means Q is the mother of R.

S % T - O \$ N - E

If O and E are male members of the family. Which of the following is a CORRECT conclusion drawn from the expression?

A. E is son of T

B. N is daughter of O.

C. S is sister of T.

D. E is son of N

Answer: D

Q8. Some students of a school are stand in a row, if Anvesha who is 15th from the left and Kush who is 6th from the right interchange their positions, Anvesha becomes 24th from the left. How many students are there in a row?

A. 28

B. 27

C. 30

D. 29

Answer: D

Q9. Read the following information carefully and answer the question that follows.

1. Five persons - Anmol, Bipin, Chaya, Disha and Manoj.

2. One of them is a nutritionist, one is a dentist, one is a filmmaker, one is a politician and one is an economist.

3. Three of them - Anmol, Chaya and economist prefer tea to coffee and two of them - Bipin and the filmmaker prefer coffee to tea.

4. The politician, Disha and Anmol are friends to one another but two of them prefer coffee to tea.

5. The nutritionist is Chaya's brother.

A. Bipin

B. Anmol

C. Disha

D. Chaya

Answer: B

Q10. Mohan and Sarayu are good at image processing and signal processing. Archana and Mohan are good at signal processing and Cryptography. Archana, Pallavi and Nirupama are good at Cryptography and data

science. Nirupama and Archana are good at Cryptography and Wavelet theory. Pallavi and Sarayu are good at Data science and image processing.

Who is good at signal processing, data science and image processing?

- A. Nirupama
- B. Archana
- C. Mohan
- D. Sarayu

Answer: D

Q11. National cricket league for upcoming England Test series was held in seven different cities of India - Jaipur, Varanasi, Mysuru, Agra, Shimla, Madurai and Visakhapatnam - not necessarily in the same order during the first seven months of the year (starting from January and ending in July). The matches were held only in one city during a month.

Matches in only four cities were held between the Visakhapatnam match and the Mysuru match. The Visakhapatnam match was not held in June. Only one match was held between the Vishakhapatnam match and the Varanasi match. The Jaipur match was held immediately after the Vishakhapatnam match, The Shimla match was held immediately before the Madurai match. The Madurai match was not held in May.

How many matches were held between the Agra match and the Jaipur match?

- A. Two
- B. One
- C. Three
- D. More than three

Answer: B

Q12. A carpenter takes an order to make some chairs in 3 days. He made in following manner.

Day1 - He made one third of the total chairs plus 4 chairs.

Day2 - He made one fourth of the remaining chairs plus 4 chairs.

Day3 - He made half of the remaining chairs plus 4 chairs.

What part of the order he makes on day 2?

- A. $\frac{4}{15}$
- B. $\frac{7}{15}$
- C. $\frac{2}{5}$
- D. $\frac{5}{9}$

Answer: A

Q13. Following is the selection criteria for a candidate to get selected for the role of Mathematics Trainer in ABC organization:

- (a) Must have completed Master's in Mathematics.
- (b) Must have work experience of at least 4 years of Mathematics teaching.
- (c) If a candidate full fills criteria (b) and not (a) but have done B. Tech with 90 percent marks then case will be sent to Chief Hiring Manager.
- (d) If a candidate full fills criteria (a) and not (b) but have a B. Ed. degree then he will be in waiting list.

Reetika has completed her B. Tech from ICE in 2014 with 92 percent. She is working as mathematics teacher for last 6 years in reputed organisation. Reetika applied for maths teacher role in ABC Organisation.

- A. Her case will be in waiting list.
- B. Her case will be sent to Chief Hiring Manager.
- C. She will be selected.
- D. She will not be selected.

Answer: B

Q14. Two statements are followed by three conclusions numbered I, II and III. You have to consider these statements to be TRUE, even if they seem to be at variance with commonly Known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statement

No pot is jug.

All pots are tubes.

Courses of Action

- I. Some tubes are jugs.
- II. Some jugs are tubes.
- III. No jug is tube.

- A. Only III follow
- B. Either II and III follow
- C. Only II follow
- D. Only I follow

Answer: B

Q15. Read the given statements and conclusions carefully. Assuming that the information given in the statements is TRUE, even if they appear to be a variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

Some engineers are players.

Some players are scientists.

No scientist is a technician.

Conclusions:

- I. 'Some scientists are engineers' is a possibility .
- II. 'Some technicians are not players' is a possibility.

- A. Only the conclusion II follows
- B. Both the conclusions I and II follow.
- C. Neither the conclusions I nor the conclusion II follows.
- D. Only the conclusion I follows.

Answer: B

Q16. In a group of 30 people, anyone who like to drink Tea also like to drink Coffee. But no one like Tea and Lassi, 8 people like Coffee and Lassi. All the people like at least one of the three drinks and the number of people who like exactly one of the three is 4 more than the number of people who like more than one of the three drinks. How many people like Tea?

- A. 8
- B. 7
- C. 2
- D. 5

Answer: D

Q17. In the question given below, four Statements: are followed by four Conclusions. One of which definitely logically follows(or is a possibility of occurrence) from the given Statements. That conclusion is your answer:

Statements:

- All glasses are rooms.
- Some rooms are planes.
- All planes are ducks.
- Some ducks are lanterns.

Conclusions:

- I. Some lanterns are planes.
- II. Some ducks are rooms.
- III. Some rooms are glasses.
- IV. Some ducks are glasses.

- A. I and II follows
- B. II and III follows
- C. All follows
- D. I, II and III follows

Answer: B

TCS Ninja Programming Logic Questions

Q1. What is the output of the following pseudocode?

```
Integer n
String s
Set s ="readwrite"
n = stringofLength(s)
Print (n ^ 1)
```

- A. Error
- B. 8
- C. 1
- D. 9

Answer: B

Q2. Which algorithm technique is most suitable to implement to solve travelling salesman problem?

- A. Divide and Conquer.
- B. Floyd Warshall Algorithm.
- C. Backtracking Algorithm.
- D. Greedy Algorithm.

Answer: D

Q3. What is the output of the below code?

```
#include <stdio.h>
int main()
{
int i, j;
for(i=1, j=1; i<=j; i++, j--)
{
printf("%d", (i));
}
return 0;
}
```

- A. Compilation Error.
- B. Nothing will print.
- C. 1
- D. Loop will execute infinite time.

Answer: C

Q4.

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

```
{
  while(!0 || !1)
  {
    if(~1)
    {
      printf("A");
      break;
    }
    else
    {
      printf("B");
      continue;
    }
  }
  return 0;
}
```

- A. A
- B. Nothing will print.
- C. B will print infinite time.
- D. B

Answer: A

Q5. What is the average case time complexity of Radix Sort, if n is the number of elements in the array, k is the maximum number of digits in any element of the array?

- A. $O(n+k)$
- B. $\Theta(n+k)$
- C. $\Theta(nk)$
- D. $O(nk)$

Answer: C

Q6. In which stage are the master test plan artifacts required to be completed and reviewed in SDLC model?

- A. Deployment into Production stage
- B. Testing sign-off stage
- C. Exit Criteria stage of design phase
- D. Brainstorming stage of Requirement analysis

Answer: B

Q7. What is the output of the code below?

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

```
int main()
```

```
{
```

```
    int x = 25;
```

```
    if(x == 30);
```

```
        x = 50;
```

```
    if(x == 25)
```

```
        x = x + 1;
```

```
    else
```

```
        x = x - 1;
```

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

```
    return 0;
```

```
}
```

Answer: 49

Q8. How can you prevent memory leak in 'C' which you would have allocated using dynamic memory allocation?

A. erase(ptr)

B. free(ptr)

C. deallocate(ptr)

D. end

Answer: B

Q9.

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

```
1. int main()
```

```
2. {
```

```
3. float num=2.0;
```

```
4. switch(num+5.0)
```

```
5. {
```

```
6. case 1:
```

```
7. printf("Case1: Value is : %1", num);
```

```
8. case2;
```

```
9. printf(Case1: Value is: %1", num);
```

```
10. case 3;
```

```
11. printf("Case1: Value is: %1", num);
```

```
12. default;
```

```
13. printf("Default: Value is: %1", num);
```

```
}
```

```
return 0;
```

```
}
```

The above program doesn't compile and execute to give the output. Identify which line has the error.

Answer: Line 4

Q10. What will be the missing steps of the algorithm to search.

Step 1: set ptr = head

Step 2 : Set i =0

Step 3 : If ptr = null

write "EMPTY LIST"

Go To Step 8

End if

[Missing Steps]

Step 8 : EXIT

A. Step 4 : Repeat Step 5 to 7 until ptr !=null

Step 5: if ptr -> data=item

write i+1

End if

Step 6 : i = i + 1

Step 7 : ptr = next -> ptr

[End Loop]

B. Step 4 : Repeat Step 5 to 7 until ptr !=null

Step 5: if ptr -> data=item

write i+1

End if

Step 6 : i = i + 1

Step 7 : ptr = ptr -> next

[End Loop]

C. Step 4 : Repeat Step 5 to 7 until ptr =null

Step 5: if ptr -> data=item

write i+1

End if

Step 6 : $i = i + 1$

Step 7 : $ptr = ptr \rightarrow data$

[End Loop]

D. Step 4 : Repeat Step 5 to 7 until $ptr \rightarrow data = item$

Step 5: if $ptr \rightarrow data = item$

write $i+1$

End if

Step 6 : $i = i + 1$

Step 7 : $ptr = ptr \rightarrow next$

[End Loop]

Answer: B

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TCS Ninja Hands-on Coding Questions

Q1. A supermarket maintains a pricing format for all its products. A value N printed on each product. When the scanner reads the value N on the item, the product of all the digits in the value N is the price of the item. The task is to design a software such that given the code of any item N the product(multiplication) of all the digits of value should be computed(price).

Example 1:

Input:

5244 -->Value of N

Output:

160 -->Price

Explanation:

From the input above:

Product of the digits: 5,1,4,4

$$5*2*4*4 = 160$$

Hence Output is 160

Code Solution:

```
#include<iostream>
using namespace std;
int main()
{
    int n, rem, mul = 1;
    cin >> n;
    while(n!=0)
    {
        rem = n%10;
        mul = mul * rem;
        n = n/10;
    }
    cout << mul;
}
```

Q2. An event management company has come up with a unique idea of printing their event tickets. Based on the ticket number combination (str1), the visitor is directed towards a particular class of audience. The task is to create a program/application to fetch the ticket number based on the following conditions:
Any occurrences of digits EF, 56 and G, & should be deleted
The characters EF should be in the same format.

Example 1:

Input:

4523EF58G -> Value of STR1

Output:

452358 -> After removal of characters
'EF' and 'G'

Example 2:

Input:

E12F35G58 -> Value of STR1

Output:

E12F3558 -> After removal of character 'G'

Explanation:

In the above example, characters E and F are not together. So, they won't be deleted. The output will be with only character G removal.

The Input format for testing

The candidate has to write the code to accept 1 input(s).

First input - Accept value for str1 which is a string consisting of numbers and uppercase alphabets without any spaces.

The output format for testing

The output should be a string without any spaces (Check the output in Example 1 and Example 2)

Additional messages in output will cause the failure of test cases.

Constraints:

Str={A,Z),(0-9)}

No spaces and special characters allowed.

Only uppercase alphabets in the input string

Code Solution:

```
#include<iostream>
#include<string.h>
using namespace std;
int main()
{
    string T, F;
    cin>>T;
    int len = T.length();
    int j=0;
    for(int i=0; i<len; i++)
    {
        if((T[i]=='E'&&T[i+1]=='F') || (T[i]=='5'&&T[i+1]=='6'))
        {
            i++;
            continue;
        }
        else if(T[i]=='G' || T[i]=='7')
        {
            continue;
        }
        else
        {
            F[j]=T[i];
            j++;
        }
    }
    for(int i=0; i<j; i++)
        cout<<F[i];
}
```

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