

TCS NQT Paper 10

Numerical Ability

Question 1 –

1. Which of the following is the decimalised value of $25665614_4 6561256_6$?

Options

1. $0.4\overline{0.4}$
2. $0.225\overline{0.225}$
3. 0.44
4. 2.25

Answer – $0.4\overline{0.4}$

Question 2 –

The ratio of present ages of P and Q is 5:9 and is the age of P, 5 year hence is 50% of age of R 10 year hence. If the age of Q 15 year ago was 75% of the age of R 10 year ago, then find the average of P, Q and R.

Options

1. 50
2. 45
3. 60
4. 40

Answer: 40

Question 3 –

While tabulating the marks of 50 students, the marks obtained by a student got recorded as 56 in place of 65. By how much did the average marks become less due to this mistake?

1. 0.2
2. 0.3
3. 0.18
4. 0.25

Answer: 0.25

Question 4 –

Abhishek scored 38 out of 80 in theoretical physics. The full marks of the practical component is 50% of the theory counterpart. How much should he score at least in the practical component so as to pass the examination, if the overall percent required for doing so is 60?

Options

1. 28
2. 27
3. 34
4. 30

Answer: 34

Question 5 –

A sum of Rs. 800 is invested for 3 years at simple interest. The rate of interest for the 3 years is 6%, 8%, and 10% per annum. Find the total amount of interest earned at the end of 3 years.

1. Rs. 195
2. Rs. 192
3. Rs. 188
4. Rs. 185

Answer – 192

Question 6 –

If 10% profit of A is equal to 20% loss of B is equal to 15% loss of C, then what is the ratio of cost price of A,B, C?

Options

1. 33:6:44
2. 44:6:33
3. 6:44:33
4. 6:33:44

Answer:

Question 7 –

If the compound interest on a sum for 2 years at 3% be Rs. 736.89, what would be the simple interest?

1. Rs. 726
2. Rs. 716
3. Rs. 720
4. Rs. 700

Answer: Rs 726

Question 8 –

Simplify:

$$A = 5 \times 7 \div 7 \text{ of } 5 - 9 \div 3 \text{ of } 3 \times (9 - 6) + 4 \times 5 \div 8 \text{ of } 314$$
$$A = 5 \times 7 \div 7 \text{ of } 5 - 9 \div 3 \text{ of } 3 \times (9 - 6) + 4 \times 5 \div 8 \text{ of } 341$$

$$B = 232 \div 454 \text{ of } 323$$
$$B = 223 \div 445 \text{ of } 332$$

$$A \div B \text{ of } A - 1$$
$$A \div B \text{ of } A - 1$$

Options

1. 20211101102021
2. 11011291291101
3. $\frac{1408}{169}$
4. 19614081408196

Answer: $\frac{1408}{169}$

Question 9 –

A whole seller sold a total of 90 air conditioners. Out of these he sold $\frac{2}{5}$ parts of air conditioners at a profit of 2.5%, 50 air conditioners at the profit of 3.8% and sold the remaining air conditioners at a loss of 5%. If the aggregate profit of seller was Rs. 71,188, then what was the cost price of each air conditioner for the seller?

1. Rs. 28,220
2. Rs. 29,670
3. Rs. 27,380
4. Rs. 26,260

Answer: 27380

Question 10 –

The marks scored by Kiyara in Hindi, English, science and mathematics 6:8:9:10. If the LCM of her marks in the above stated subjects is 3600 then calculate the HCF of her marks.

Options

1. 8
2. 12
3. 10
4. 15

Answer: 10

Question 11 –

A mixture contains alcohol and water in the ratio of 7 : 5. If 7 litres of water is added to the mixture, then the ratio becomes 9 : 7. Find the quantity of alcohol in the given mixture?

1. 15.75
2. 15.35
3. 15.55
4. 15.25

Answer – 15.75

Question 12 –

A man was walking at a speed of 3km per hour on a foggy day. A carriage passed him in the same direction. He could see the carriage for 2 mins for a distance of 100 metre. Find the speed of the carriage.(In km per hour)

1. 8
2. 7
3. 6
4. 5

Answer: 6 km/hr

Question 13 –

The average of 8 numbers – 231, 256, 343, x, 273, 179, 308, 162 is 252. Find the value of x

Options

1. 261
2. 263
3. 264
4. 262

Answer: 264

Question 14 –

Rocky is twice as efficient as Gani and takes 63 days less than Gani to dig a well. Find the time in which they can complete digging the well together.

1. 55
2. 45

3. 42
4. 52

Answer – 42 days

Question 15 –

The speed of a train increases by 5km/hr after one hour, if the distance travelled by the train was 60km then what is the total distance covered in 16 hour?

1. 1640km
2. 1650km
3. 1480km
4. 1560km

Answer – 1560 km Question 16 –

Ridhima earns 7177₇₁ more salary than Rhythm who earns 6236₃₂ more salary than Ritika. If the sum of the salaries of all three is Rs. 1, 34,800 then what is the salary of Ridhima?

Question 17 –

From an amount of Rs. 154980, some amount is given to A at interest rate of 15% and the remaining amount is given to B at interest rate of 14%. If the amount is given at simple interest rate and gives a total profit of Rs. 22472.1 after one year. Find the percentage change in profit (approximately) if the interest rates of A's and B's gets interchanged.

Answer – No change Question 18

–

Study the following table and answer the question below:

The table shows number of people (in hundreds) participating in Annual Fair from 6 different towns over the years:

Years	2015	2016	2017	2018	2019	2020
Towns						
A	4.2	5.1	6.3	4.4	5.8	6.2
B	5.5	5.3	5.1	5.0	5.4	6.8
C	4.5	6.2	6.5	5.9	5.4	4.9
D	5.8	5.7	5.3	5.1	4.9	4.8
E	6.0	6.1	5.9	5.3	5.5	5.7
F	5.7	6.2	6.6	5.1	4.4	4.3

The difference between the people participating in the fair from all the town in the year 2015 and 2020 is?

Answer – 100

Question 19 –

A container contains a 50 liter mixture of milk and water in ratio 7:3. Some amount of the mixture is taken out and replaced with the same amount of water. The ratio of milk and water becomes 14:9. Find the amount of mixture that was taken out.

Options

1. 12¹2¹2²1 litre
2. 20 litre
3. 16²3¹6³2 litre
4. 10 litre

Answer:

Verbal Ability

Question 1.

Parts of the given sentence have been given as options. One of them contains a grammatical error. Select the option that has the error.

After it had rained continuously for a week, then the cricket field was a massive sea of mud.

1. A massive sea of mud
2. For a week
3. After it had rained continuously
4. Then the cricket field was.

Answer – *Then the cricket field was* Question

2.

The given sentence contains four underlined phrases. Three of these phrases have been correctly used and one has been incorrectly used. Select the phrase from THE options which best replaces the wrong phrase in the sentence.

I do not claim if I am always correct but I seriously doubt his competence and would not like to take a risk.

1. That I am always
2. To take some
3. Competition
4. Yet I have serious

Answer – *that I am always*

Question 3.

Parts of the given sentence have been given as options. One of them contains a grammatical error. Select the option that has the error.

According to Apter's study, more than 60 percent of married women experience sustained stress because of their mother-in-laws compared to just 15 percent of men.

Options

1. sustained stress because of their mother-in-laws
2. compared to just 15 percent of men
3. According to Apter's study, more than
4. 60 percent of married women experience

Answer – compared to just 15 percent of men Question 4.

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

While the battle for freedom and democracy raged across the world, the people of India were A. _____ in their own fight for liberty. For almost a century, India had been under the direct rule of the British B. _____, and any Indians had had enough. Mahatma Gandhi and the National Indian Congress pushed for a C. non-violent movement aimed at forcing Britain to "Quit India." Gandhi, D. _____ of the tactics of non-violent civil disobedience, called for their use on August 8, 1942 with the passing of the Quit India Resolution.

1. (A) engaged (B) crown (C) completely (D) pioneer
2. (A) pledged (B) wreath (C) finally (D) beginner
3. (A) submerged (B) jewel (C) utterly (D) guide
4. (A) promised (B) crest (C) totally (D) explorer

Answer – (A) engaged (B) crown (C) completely (D) pioneer

Answer – (A) ventilated (B) featured (C) assisted (D) casual

Question 5.

Sentences of the paragraph are given below in jumbled order, Arrange the sentence in correct order to form a meaningful and coherent

1. Encryption involves using a cryptographic key, a set of mathematical values both the sender and recipient agree on.
2. They encrypt the data i.e convert human readable plaintext into incomprehensible text, ciphertext
3. When information or data is shared over the internet, it goes through a series of network devices worldwide, which form part of the public network.
4. To prevent this, users can install specific software or hardware to ensure the secure transfer of data or information.
5. As data travels through the public internet, there is a chance it could be compromised or stolen by hackers.

1. ABCED
2. BAEDC
3. CEDAB
4. DECBA

Answer – CEDAB Question 6.

In the following passage, sets of idioms have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

The conflict between Russia and Ukraine is a 1. _____ to the global economy that will hurt growth and raise prices. Beyond the suffering and humanitarian crisis from Russia's invasion of Ukraine, the entire global economy will reel under the effects of slower growth and faster inflation. A rise in prices for commodities like food and energy will in turn push up inflation further, in turn eroding the value of incomes and 2. _____. Neighboring economies in particular will face the impact further as they 3. _____ disrupted trade, supply chains, and remittances as well as an historic surge in refugee flows. Finally reduced business confidence and higher uncertainty will

potentially 4. _____ from emerging markets, reverberating- across-worlds- regions.

Options.

1. 1. Major blow 2. Telling heavily on demand 3. Grapple with 4. Boost capital inflows
2. 1. Major bombshell 2. Weighing on demand 3. Come to grips with 4. Slow down capital flows
3. 1. Major turnover 2. Weighing on mind 3. Toying with 4. Spur on capital gains
4. 1. Major blow 2. Weighing on demand 3. Grapple with 4. Spur capital flows

Answer – 1. Major blow 2. Weighing on demand 3. Grapple with 4. Spur capital flows

Question 7.

Select the most appropriate option to fill in the blank.

The President listened to the _____ Minister's statement with interest.

Options

1. Ameteur
2. Amateur
3. Amatuer
4. Ametuer

Answer – Amateur Question 8.

Select the most appropriate option to fill in the blank.

Globalization poses a great threat to _____practices

Options

1. Indigenus
2. Indegenous
3. Indigenous
4. Indiginous

Answer – Indigenous

Question 9 –

Select the most appropriate option to fill in the blank.

Like everything, entertainment is _____ the years. People's tastes and what is acceptable at the time are heavy factors _____ and become popular.

Options

1. Something that changes over; in what is produced.
2. Something that changes over; in what are produced.
3. Something that changes all over; of what is produced.
4. Something that changings over; in what is produce.

Answer – Something that changes over; in what is produced. Question 10

–

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

An emerging method of classroom teaching is contemplative pedagogy. It is (1) _____ on the idea that teaching and learning should be mindful. The curriculum (2) _____ under the method incorporates mind triggering exercises to (3) _____ learning and development. Being mindful invariably results in better academic (4) _____ for students. And for teachers, it brings an invaluable and enriching teaching experience.

Blank 1. A. focus B. focused C. focusing D. focuses

Blank 2. A. framed B. calculated C. directed D. designed

Blank 3. A. forward B. advance C. facilitate D. hamper

Blank 4. A. outcomes B. reactions C. results D. conclusions

1. (1)-C, (2)-D, (3)-A, (4)-B
2. (1)-D, (2)-A, (3)-B, (4)-C
3. (1)-B, (2)-D, (3)-C, (4)-A
4. (1)-C, (2)-B, (3)-A, (4)-D

Answer – (1)-B, (2)-D, (3)-C, (4)-A

Question 11 –

Given below is a paragraph that has five sentences which are presented in jumbled order. Write down the best order (eg. ABCDE) which would form a meaningful, unified and coherent paragraph.

1. The “incessant shower of innumerable atoms” comes from all sides and the atoms shape themselves “into the life of Monday or Tuesday”
2. The word semi-transparent suggests that we cannot see clearly, or outside our own perceptual system.
3. Virginia Woolf’s image of the mind “receiving” “a myriad impressions- trivial, fantastic, evanescent or engraved with the sharpness of steel” is an influential 20th century metaphor.
4. The exclusion of an organizing self, or mind : her novel aspires to be like Monet’s cathedral, a record of evanescent stimuli, coalescing into a shape, is the other important thing about Woolf’s description.
5. In the receptive world, life is a “ luminous halo, a semi-transparent envelope surrounding us from the beginning of consciousness to the end”.

Answer – CEBDA Question 12 –

In the following passage, sets of idioms have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Montmorency was a perfect nuisance. He came and sat down on things, just when they were wanted to be packed; and he (1)_____the fixed belief that, whenever Harris or George (2)_____their hand for anything, it was his cold damp nose that they wanted. He put his leg into the jam, and he (3) _____, and he pretended that the

lemons were rats, and got into the hamper and killed three of them before Harris could (4)_____ with the frying-pan

1. 1. Laboured hard 2. Reached out 3. Upset the teaspoons 4. Landed a blow.
2. 1. Sweated it out 2. Put out 3. Messed up the teaspoons 4. Land him
3. 1. Tottered under 2. Reaches out 3. Reignited hellfire with teaspoons 4. Knock him down.
4. 1. Laboured under 2. Reached out 3. Worried the teaspoons 4. Land him

Answer – 1. Tottered under 2. Reaches out 3. Reignited hellfire with teaspoons 4. Knock him down.

Question 13 –

Four idioms are given below. Choose their sequence that would fill in the blanks and complete the text given here.

Sudatta is such a _____. I never knew he was a musician! His latest album is turning out to be such a hit that it will eventually become a real _____ to come. However, he might need to start a fund for his younger brother, Devdatta, as a _____. Devdatta is the _____ of the family and everyone's.

1. Cash cow
2. Dark horse
3. Black sheep
4. Nest egg

1. 3143
2. 2423
3. 2143
4. 3412

Answer – 2143

Reasoning Ability

Question 1 –

Select the INCORRECT letter-cluster from the given series

NOPQ, RSLM, JKTU, HIVW, FGXY, ZADE, BCBC

1. ZADE
2. BCBC
3. FGXY
4. HIVW

Answer:- BCBC Question

2 –

In a certain code language

M & N means 'M is the wife of N'

M @ N means 'M is the brother of N'

M \$ N means 'M is the father of N'

M N means 'M is the son of N'

M + N means 'M is the daughter of N'

Based on the above , how K is related to J if 'JQ@T+L&B\$K@D'?

1. Father's father
2. Mother's brother
3. Mother's father
4. Father's brother

Answer:- Father's brother

Question 3 –

Select the INCORRECT letter cluster from the given series.

GDK, IFM, LIP, NLS, QOU

Answer: NLS

Question 4 –

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

Question :

Who among H, L, T, N and O is in the middle while standing in a line?

Statements:

1. L is to the right of O.
2. N is between H and O
3. L is between O and T

1. Only statements I and II are sufficient
2. Only statements II and III are sufficient
3. Only statements I and III are sufficient
4. All statements I, II and III are necessary.

Answer:- All statements I, II and III are necessary.

Question 5 –

A question is given followed by two statements labeled I and II. Identify which of the statements is/are sufficient to answer the question.

Question:

Among five sarees- W, X, Y, T and V each one of different prices, which is the costliest?

Statements

1. X is costlier than Y and T but cheaper than V which is not the costliest.
2. V is costlier than X and Y but cheaper than W

1. Data in both statements I and II together are not sufficient to answer the question.
2. Data either in statement I alone or in statement II alone is sufficient to answer the question
3. Data in statement I alone is sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
4. 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.

Answer:- . Data in statement I alone is sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

Question 6 –

Study the given information carefully and answer the question that follows.

Seven people M, N, O, P, Q, R and S are having different hobbies, viz., carom, table tennis, badminton, bridge, hockey, football, and lawn tennis but not necessarily in the same order.

Each of them belongs to different countries viz. India, Peru, Bhutan, Nepal, Brazil, Spain and Japan, but not necessarily in the same order.

M belongs to Brazil. P likes lawn tennis. The person who likes hockey is from Peru. the person who likes badminton is from Spain. R does not belong to Spain, Peru, India, or Nepal. R does not like football, table tennis or bridge. N does not belong to Bhutan, Peru, India or Nepal. N does not like bridge, carom, table tennis or football. O does not like hockey and he is not from Nepal or India. Neither P nor S belongs to India. M does not like table tennis. The person from Bhutan likes football.

Who likes football?

Answer:- 0

Question 7 –

Among the five pairs of letter-clusters given below three are alike in some manner and two are different. Choose the similar pairs by choosing appropriate options.

1. PFDNQXJMB : TJXQNJDQF
2. JNGKWTEUS : NRWTKGEYW
3. HKRXPDBGN : LOXRPBDKR
4. KOJEIWPNM : OSWPJIERQ
5. RQIFTPYWE : VUYPTFWAI

1. b,c and e
2. a,b and d
3. b,d and e
4. a,b and c

Answer –

Question 8 –

Following are the criteria required to be fulfilled for getting admission in a college for M. A. in Vocal Music.

1. The candidate must possess a bachelor degree in vocal or classical music with 60% or more marks.
 2. The candidate must have secured at least 80% marks in his/her performance examinations at bachelor levels.
 3. The candidate should have scored more than 75% marks in the entrance test and scored more than 80% marks in the practice
 4. The candidate should be at least 22 years and at most 28 years as on 1st June 2022.
-
1. In case a candidate fulfill all criteria except the required percentage as mentioned in the criteria ii) but has scored 90% and above marks in practical then the case is to be referred to the admission committee.
 2. In case a candidate fulfill all the criteria except the age criteria as mentioned in iv) but belongs to SC/ST community, the case is to be referred to the director.

Refer to the details of a candidate, provided below and four options that follow.
Select the appropriate option that applies to the person's candidature.

Ms. Lalita belongs to Scheduled caste community who completed her bachelor degree in classical music in 2021 with seven ninth of ninety nine % marks. She was born..... (missing) and was 21 year old when she completed her bachelor. She is an excellent performer and have secured six-seventh of one hundred three% marks in the practical exam.....(missing) entrance test and had secured two-fifth of one hundred eight two % marks in her bachelor's performance exam. She scored more tahn 80% marks in the entrance test.

1. The candidate is to be rejected
2. The case is to be referred to Admission Committee
3. The case is to be referred to the Director
4. The candidate is to be selected.

Ans.

Advanced Coding

Question 1-

Two parallel roads separated by a river are connected from cities A and B to an outer ring road. Both the roads have high flow of traffic throughout the day. People who want to travel from city A to city B or vice versa have to pass through the ring road which is a huge waste of time and money. In order to ease the traffic and also to make it convenient for commuters to travel from city A to city B and vice versa, construction of a bridge over the river is planned.

The surveillance team submitted a report stating the bridge should be constructed in the following manner:

- The ground or soil is stronger at certain points on the road favorable for the construction of the bridge.
- The strong ground positions are given from the starting point of each road. Say, road of city A has strong ground at 1,4 meaning there is a strong ground at a distance of 1 unit, another strong ground point at a distance of 4 units from the starting point of the road of city A.

Collate the strong ground positions of both the roads.

Sort them in ascending order.

Calculate the middle point or median of the combined strong ground positions.

The bridge should be constructed from road A as per the middle point calculated

Given the number of strong positions on the roads of A and B(N_1 and N_2 respectively), and the strong ground positions on each road, the task here is calculate the midpoint of the combined strong positions of both the roads.

NOTE: When the strong positions are combined, the repeated positions on the different roads are dropped.

Example 1:

- **Input:**
3 -> Value of N_1
3 -> Value of N_2
{3,5,2} -> a[], Elements a[0]to a[N_1-1], where each input element is separated by new line
{1,2,3} -> b[], Elements b[0]to b[N_2-1], where each input element is separated by new line
- **Output:** 2.50
- **Explanation:**
From the inputs given above:
Number of strong ground positions on road A:3
Number of strong ground positions on road B:3
The positions of strong ground from the starting point of road A are at a distance of 3,5,2 The
positions of strong ground from the starting point of road B are at a distance of 1,2,3
Combining the strong ground positions of both the roads and sorting them in ascending order
1,2,3,5
Middle points are 2 and 3
 $2+3=5$
 $5/2=2.5$
So, the middle point from where the bridge should be constructed is 2.5.
Hence, the output is 2.50

Example 2:

- **Input:**
2 -> Value of N_1
3 -> Value of N_2

{2,3} -> all, Elements a[0] to a[N1-1], where each input element is separated by new line
{5,6,4} -> b[], Elements b[0] to b[N2-1], where each input element is separated by new line

- **Output:** 4.00

- **Explanation:**

From the inputs given above:

Number of strong ground positions on road A: 2

Number of strong ground positions on road B: 3

The positions of strong ground from the starting point of road A are at a distance of 2,3
The positions of strong ground from the starting point of road B are at a distance of 5,6,4
Combining the strong ground positions of both the roads and sorting them in ascending order:

2,3,4,5,6 > Middle point is 4

So, the middle point from where the bridge should be constructed is 4

Hence, the output is 4.

C++

```
#include <bits/stdc++.h>
using namespace std;
int main(){
    int n1,n2;
    cin>>n1>>n2;
    vector<int> v1;
    vector<int> v2;
    for(int i=0;i<n1;i++){
        int t;
        cin>>t;
        v1.push_back(t);
    }
    for(int i=0;i<n2;i++){
        int t;
        cin>>t;
        v2.push_back(t);
    }
    unordered_set<int> s;
    for (int i=0; i < n1;i++){
        s.insert(v1[i]);
    }
    for (int i=0; i< n2;i++){
        s.insert(v2[i]);
    }
    for (auto it = s.begin(); it != s.end(); it++)
        cout << *it << " ";

    return 0;
}
```

Python

```
n1 = int(input())
n2 = int(input())
a = []
b = []
for i in range(n1):
    a.append(int(input()))
for i in range(n2):
    b.append(int(input()))
c = list(set(a + b))
c.sort()
l = len(c)
if l % 2 == 0:
    print((c[l//2] + c[(l//2)-1])/2)
else:
    print(c[l//2])
```

Question 2

You have a storeroom in your house. The storeroom is a square type and has sides of length N .

Your mom has divided the room into a 2-dimensional matrix M .

In each cell of that matrix, there is a box and has weight W_{ij} (for all $i \leq N$ and $j \leq N$).

As you are a mathematician, you are very much interested in the median concept. So, your mom gave you a task to test your intelligence.

You have to find the minimum of all row medians (weights) as maximum possible by rearranging the 2 dimensional matrix M . But you have a limit.

You are accepted to rearrange if and only if the sum of median weights of N rows should not exceed tolerance if it is not possible to rearrange the matrix M for a minimum of 1 time, then print -1,

NOTE: Here we considered the array as 1-indexed and median is calculated by the formula = $(N+1)/2$

Example – 1:

- **Input:**
4 198 -> N and P values
34 77 72 65 -> 1st row of length 4
49 70 71 15 -> 2nd row of length 4
12 84 5 78 -> 3rd row of length 4
74 1 26 60 -> 4th row of length 4
- **Output:**
26
- **Explanation:**
Here we can rearrange the 2-d matrix as $k > \text{sum of all row medians}$. But how many possible re-arrangements we do we will get the same minimum median of all rows is 26.

Example – 2:

- **Input:**
5 653
38 43 5 26 35
39 62 6 93 66
80 35 51 28 22
82 31 37 50 88
92 96 5 96 49

Output:

38

Advanced Quantitative

Question 1:

Find the equation of line passing through the point of intersection of the following circles

$$(x-y)^2 + (y-3)^2 = 7 \text{ and } (x-3)^2 + (y-2)^2 = 5$$

Options

1. $2x-y=1$
2. $x+y=1$
3. $x-y=1$
4. $x-2y=1$

Answer – $x-y=1$

Question 2:

Two complex numbers α and β are such that $\alpha + \beta = 2$, and, $\alpha^4 + \beta^4 = 272$ $\alpha + \beta = 2$, and, $\alpha^4 + \beta^4 = 272$, then the quadratic equation whose roots are α , and β is:

Options

1. $x^2 - 2x + 16 = 0$
2. $x^2 - 2x - 8 = 0$
3. $x^2 - 2x - 16 = 0$
4. $x^2 - 2x + 8 = 0$

Answer: $x^2 - 2x - 8 = 0$

Question 3:

A pack of cards consists of 9 cards numbered 1 to 9. Three cards are drawn at random without replacement. Then the probability of getting 2 even and 1 odd numbered cards **** between

Options

1. 0.22 and 0.24
2. 0.12 and 0.14
3. 0.11 and 0.13
4. 0.34 and 0.36

Answer – 0.34 and 0.36

Question 4:

A right angle triangle is formed by two rectangular coordinates axes and the straight line whose intercept on the x and y axes are respectively 4 and 2 followed by the three points P(1,1); Q(1,2); R(2,2) which lie(s) outside the triangle.

1. Only R
2. Only P
3. P and Q

4. Only Q

Answer: Option A – Only R

Question 5:

There are ten straight parallel roads in a city ; the i th one is named X_i , ($1 \leq i \leq 10$). There are another twelve straight roads perpendicular to each X_i the j th one is called Y_j ($1 \leq j \leq 12$). One person wants to travel from the crossing point of X_1 and Y_1 to the crossing point of X_{10} and Y_{12} . How many different shortest paths are there to complete the journey?

Answer: 375 ways

Question 6:

Suppose M and N are two different units of measuring temperature.

If $3^\circ M = 14^\circ N$, $-27^\circ M = 4^\circ N$, and $6^\circ M = t^\circ N$, then what is t?

Answer: 28°

Question 7:

Suppose x, y are integers such that $0 \leq x, y \leq 10$. How many ordered pairs (x,y) are there that satisfy $x+y-x-y+x+y=0$?

Answer: 10

Question 8:

On the basis of the above mentioned table, what is the pooled average of the total number of employees of all categories in the year 2013?

1. 1257
2. 1258
3. 1256
4. 1246

Answer: D – 1246

Question 9:

With reference to the above mentioned table: What is the difference between the total number of ASST consultants added to the company and the total number of Associate consultants during the year 2012-2016?

1. 236
2. 235
3. 237
4. 234

Answer: C – 237

Advanced Reasoning

Question 1 –

Shalini Got admitted in the M.Ed programme of the university. She has to choose papers for semester I and II, She must take exactly three papers in each semester. By the end of semester II, She must complete at least three papers in area AE, at least one paper in area BE, and at least one paper in area CE. The only papers available to the students are:

- Area AE: AE102, AE201, AE202, AE203
- Area BE: BE101, BE102, BE103, BE201
- Area CE: CE101, CE102, CE202

The selection of papers is subject to the following restrictions:

1. A student can take not more than two papers with the same letter designation per semester.
2. Papers with a number designation in 200s are offered only in the II semester. Papers with the number designation in 100s are offered in both I and II semesters.
3. No paper taken in the I semester can be repeated the II semester

Which of the following is a paper that shalini must take?

1. AE102
2. BE101
3. CE101
4. BE102

Answer: AE102 Question

2 –

In a certain code language BOMB is written as 316143, How will HELP be written in that language?

Answer: 961316

Question 3 –

Mehak, muskan, rajan, Lata, Deepak are five cousins Mehak is twice as old as muskan, rajan is half the age of muskan, Mehak is half the age of deepak and rajan is twice the age of lata.

Who comes in between Rajan and Mehak when they stand in according to ascending order of their ages?

Answer: Muskan Question 4 –

Read the following paragraph and answer the following in YES/NO

Nitin was busy in a very complicated activity with his friends and suddenly he received a phone call from his father and during the call his father shared a ten-digit mobile phone number which he could not note down because of being busy in the activity. But he shared the phone number with his friends when his father shared it with him. Now Nitin and his friends want to recall the number and in the effort all of them agree that the first three numbers were 887. Two of them are sure that the fourth and fifth numbers were 8 and 9. Three of them agree that the sixth and seventh numbers were 2 and 7. Three more agree that the second last number was 6 and all of them agree that the last number was also 6. Is the recalled mobile phone number 887278966 correct?

Answer: No

Question 5 –

Statement: It is observed that despite many awareness advertisements and warning provided on a cigarettes, there is a lot of consumptions of cigarettes in india

Course of action:

1. The government should impose more tax on cigarettes
2. The government should issue a notice to reduce cigarette manufacturing units.

1. Only course of action I follows
2. Neither course of action I nor II follows
3. Only course of action II follows
4. Both course of action I and II follow

Answer:- Neither course of action I nor II follows