



Civil Junction

Participant ID	
Participant Name	
Test Center Name	iON Digital Zone iDZ 1 Sector 62
Test Date	20/10/2019
Test Time	8:30 AM - 10:30 AM
Subject	Junior Environment Engineer

Section : Mental Ability

Q.1 Arun is to the south east of Ajay. Aman is to the east of Arun. Abhay is to the south of Aman. Aakash is to the east of Abhay. In which direction is Ajay from Aakash?

- Ans
- 1. South West
 - 2. North West
 - 3. South
 - 4. North

Question ID : 54592762526

Q.2 Identify the diagram that best represents the relationship among the given classes.

Bird, Parrot, Elephant

Ans

- 1.
- 2.
- 3.
- 4.

Question ID : 54592762525

Q.3 If a mirror is placed on the line AB, then which of the answer figures is the right image of the given figure?



Ans

- 1.

✓ 2.



✗ 3.



✗ 4.



Question ID : 54592762530

Q.4 In the following question, select the odd word from the given alternatives.

- Ans
- ✗ 1. Lily
 - ✗ 2. Jasmine
 - ✗ 3. Rose
 - ✓ 4. Tree

Question ID : 54592762514

Q.5 A, B, C, D, E and F are sitting around a circular table. A sits third to the right of B. C is not the neighbour of A. D sits to the immediate right of B. E is the neighbour of C. Who sits between A and D?

- Ans
- ✗ 1. C
 - ✓ 2. F
 - ✗ 3. E
 - ✗ 4. B

Question ID : 54592762519

Q.6 In a certain code language, 'MORNING' is written as 'GNINROM'. What is the code for 'NIGHT' in that code language?

- Ans
- ✗ 1. TGHIN
 - ✗ 2. THIGN
 - ✗ 3. TIHGN
 - ✓ 4. THGIN

Question ID : 54592762517

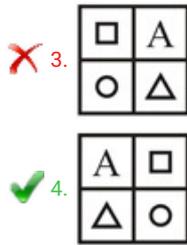
Q.7 In the following question, select the wrong figure from the given series.



- Ans
- ✗ 1.

△	○
A	□
 - ✗ 2.

A	△
□	○



Question ID : 54592762529

Q.8 In the following question, select the missing number from the given series.

1, 2, 6, 15, 31, ?

- Ans
- 1. 54
 - 2. 57
 - 3. 56
 - 4. 55

Question ID : 54592762524

Q.9 In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives.

4	5	7	16
6	7	11	24
10	11	12	?

- Ans
- 1. 43
 - 2. 33
 - 3. 36
 - 4. 34

Question ID : 54592762523

Q.10 A is the husband of B's father's only child. C is the grandson of A's father. How is B related to C?

- Ans
- 1. Mother
 - 2. Niece
 - 3. Sister in law
 - 4. Aunt

Question ID : 54592762518

Q.11 Eleven students P, Q, R, S, T, U, V, W, X, Y and Z are sitting in the first row of the class facing the teacher. S sits to the immediate left of R. P sits second to the right of T. T is at one of the ends. Y is the immediate neighbour of P and Q. S sits third to the right of Q. U sits to the immediate left of S. W sits to the immediate right of Q and fourth to the left of X. Who is sitting in the middle of the row?

- Ans
- 1. U
 - 2. W
 - 3. Q
 - 4. Y

Question ID : 54592762520

Q.12 In the following question below are given some statements followed by some conclusions

based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

Statements:

- I. All trucks are iron.
- II. No iron is copper.

Conclusions:

- I. No truck is copper.
- II. Some copper are truck.

- Ans
- 1. Both conclusion I and II follows.
 - 2. Only conclusion II follows.
 - 3. Only conclusion I follows.
 - 4. Neither conclusion follows.

Question ID : 54592762521

Q.13 In the following question, select the odd figure from the given alternatives.

Ans

- 1. 
- 2. 
- 3. 
- 4. 

Question ID : 54592762528

Q.14 Arrange the given words in the sequence in which they occur in the English dictionary.

- 1. Same
- 2. Sample
- 3. Satisfy
- 4. Some
- 5. Salad

- Ans
- 1. 12345
 - 2. 15243
 - 3. 51234
 - 4. 15324

Question ID : 54592762512

Q.15 In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

Statements:

- I. All dogs are birds.
- II. All birds are parrot.
- III. No parrot is crow.

Conclusions:

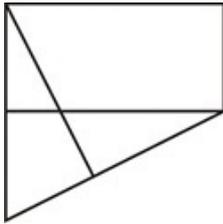
- I. All dogs are parrot.
- II. No dog is crow.
- III. Some birds are crow.

- Ans
- 1. Neither conclusion follows

- 2. Both conclusion I and II follows.
- 3. Both conclusion II and III follows.
- 4. Both conclusion I and III follows!

Question ID : 54592762522

Q.16 How many Quadrilaterals are there in the given figure?



- Ans
- 1. 7
 - 2. 4
 - 3. 3
 - 4. 5

Question ID : 54592762531

Q.17 Mahesh walks 12 km towards West. He then takes a right turn and walks 6 km. He then takes a left turn and walks 8 km. He then takes a right turn and walks 4 km. He again takes a right turn and walks 20 km. In which direction is he now from his initial position?

- Ans
- 1. North
 - 2. South West
 - 3. North East
 - 4. North West

Question ID : 54592762527

Q.18 In the following question, select the related letters from the given alternatives.

SUNNY : URPKA :: RAINY : ?

- Ans
- 1. TYKKA
 - 2. TXKKB
 - 3. TXKKA
 - 4. TXKLA

Question ID : 54592762516

Q.19 A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

AB3, CE8, EH13, GK18, ?

- Ans
- 1. IM21
 - 2. IM23
 - 3. IN23
 - 4. IN22

Question ID : 54592762513

Q.20 In the following question, select the related word pair from the given alternatives.

Parrot : Bird :: ? : ?

- Ans
- 1. Pen : Drawing

2. Football : Playing

3. Axe : Cutting

4. Earth : Planet

Question ID : 54592762515

Section : General Awareness

Q.1 Which Indian was conferred the 'Grand Collar of the State Palestine'?

Ans 1. Rajnath Singh

2. Shashi Tharoor

3. Narendra Modi

4. Manmohan Singh

Question ID : 54592762547

Q.2 Emergency Provisions are given in which part of the constitution?

Ans 1. Part XVIII

2. Part XV

3. Part XVII

4. Part XX

Question ID : 54592762549

Q.3 Who has been appointed as the governor of West Bengal in July 2019?

Ans 1. Lal ji Tandon

2. Jagdeep Dhankar

3. Keshari Nath Tripathi

4. Anandiben Patel

Question ID : 54592762545

Q.4 Kathakali, a classical dance, belongs to which state of India?

Ans 1. Andhra Pradesh

2. Tamil Nadu

3. Kerala

4. Odisha

Question ID : 54592762532

Q.5 Who wrote the book, "Stri-purush tulna" criticising the social differences between men and women?

Ans 1. Pandita Ramabai

2. Begum Rokeya Sakhawat Hossain

3. Tarabai Shinde

4. Ishwarchandra Vidyasagar

Question ID : 54592762543

Q.6 Nayanars were saints devoted to ____.

Ans 1. Buddha

2. Vishnu

3. Shiva

4. Durga

Question ID : 54592762544

Q.7 Which of the following is the nodal central agency of government of India for procurement of Wheat and Paddy under price support scheme?

Ans 1. NASSCOM

2. FCI

3. IFPRI

4. NAFED

Question ID : 54592762535

Q.8 Who won Wimbledon Tennis Championship in Women's doubles category in 2019?

Ans 1. Gabriela Dabrowski and Xu Yifan

2. Serena Williams and Venus Williams

3. Barbora Krejčíková and Kateřina Siniaková

4. Barbora Strýcová and Hsieh Su – wei

Question ID : 54592762551

Q.9 'X' is an organism having bilateral symmetry and are segmented. There is an open circulatory system and coelomic cavity is blood – filled. It has jointed legs. Identify 'X'.

Ans 1. Annelida

2. Arthropoda

3. Echinodermata

4. Nematoda

Question ID : 54592762537

Q.10 Mount Abu hill station is located in ____.

Ans 1. Aravallil

2. Himalayas

3. Satpuras

4. Western Ghats

Question ID : 54592762540

Q.11 Chindwin river in Manipur is a tributary of ____.

Ans 1. Brahmaputra

2. Ganga

3. Irrawady

4. Meghna

Question ID : 54592762541

Q.12 Who became the first Indian to be elected as a FIFA council member?

Ans 1. Gurpreet Singh Sandhu

2. Sunil Chhetri

3. Subrata Dutta

4. Praful Patel

Question ID : 54592762550

Q.13 Which article of the Constitution provides for the adjudication of inter – state water disputes?

Ans 1. Article 272

2. Article 266

3. Article 262

4. Article 270

Question ID : 54592762548

Q.14 An electric Tubelight of 120W is used for 12 hours per day. How many units of energy does the tubelight consume in one day?

Ans 1. 10 units

2. 1.44 units

3. 144 units

4. 0.144 units

Question ID : 54592762538

Q.15 Gandhi Sagar Dam is located in _____.

Ans 1. Haryana

2. Gujarat

3. Maharashtra

4. Madhya Pradesh

Question ID : 54592762539

Q.16 The Interest rate at which RBI absorbs liquidity, on an overnight basis, from banks against the collateral of eligible government securities under Liquidity Adjustment Facility is known as _____.

Ans 1. Marginal Standing Facility

2. Bank Rate

3. Repo Rate

4. Reverse Repo Rate

Question ID : 54592762534

Q.17 Butter is a/an _____.

Ans 1. Foam

2. Gel

3. Sol

4. Aerosol

Question ID : 54592762536

Q.18 Vimal Vasahi Temple belongs to which of the following religion?

Ans 1. Hinduism

2. Jainism

3. Judaism

4. Buddhism

Question ID : 54592762533

Q.19 Who was the first Indian Governor-General of free India?

- Ans 1. C. Rajagopalachari
 2. Sardar Vallabhbhai Patel
 3. Dr. B. R. Ambedkar
 4. Lord Mountbatten

Question ID : 54592762542

Q.20 Which launch vehicle was used to carry Chandrayaan-2 to the moon?

- Ans 1. PSLV C – 46
 2. GSLV Mk – II
 3. PSLV C – 44
 4. GSLV Mk – III

Question ID : 54592762546

Section : Arithmetic Ability

Q.1 What is the value of 20 percent of 50 percent of $\frac{3}{4}$ of 2400?

- Ans 1. 240
 2. 180
 3. 160
 4. 200

Question ID : 54592762558

Q.2 The table given below shows the milk (in litres) sold by 2 milkman in different cities.

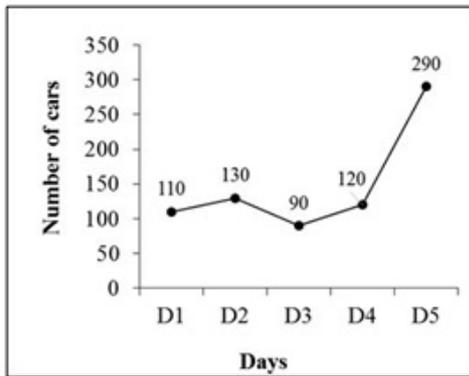
Cities	Milkman 1	Milkman 2
C1	28	31
C2	34	32
C3	38	43
C4	37	41
C5	53	49
C6	58	59
C7	63	62
C8	67	69

What is the difference in the average milk sold by the two milkmen per city?

- Ans 1. 1 litre
 2. 4 litre
 3. 2 litre
 4. 3 litre

Question ID : 54592762569

Q.3 The line graph given below shows the number of cars parked in parking area on different days of a week.

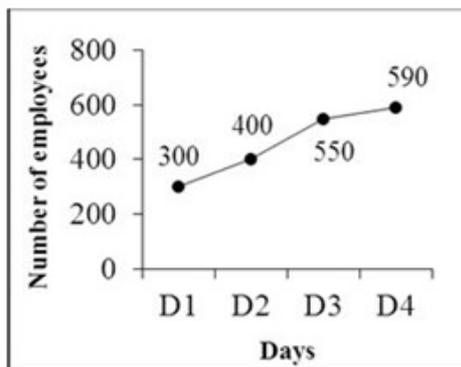


What is the percentage increase in number of cars parked on day D1 to day D5?

- Ans
- 1. 153.63 percent
 - 2. 183.63 percent
 - 3. 163.63 percent
 - 4. 173.63 percent

Question ID : 54592762570

Q.4 The line graph given below shows the number of employees present in a company on different days of a week.



The number of employees present on day D4 is how much percent more than the number of employees present on day D2?

- Ans
- 1. 47.5 percent
 - 2. 57.5 percent
 - 3. 67.5 percent
 - 4. 77.5 percent

Question ID : 54592762571

Q.5 What is the Least Common Multiple of $2^6 \times 6^2 \times 22^2$, $2^8 \times 6^3 \times 22^3$ and $11^5 \times 2^3 \times 3^4$?

- Ans
- 1. $3^4 \times 2^{14} \times 11^5$
 - 2. $3^4 \times 2^{15} \times 11^4$
 - 3. $3^4 \times 2^{14} \times 11^6$
 - 4. $3^5 \times 2^{13} \times 11^6$

Question ID : 54592762555

Q.6 Which of the following is in descending order?

Ans

1. $7/9, 5/7, 5/8, 3/5$

2. $5/7, 5/8, 3/5, 7/9$

3. $3/5, 5/8, 5/7, 7/9$

4. $5/7, 7/9, 5/8, 3/5$

Question ID : 54592762553

Q.7 From the below options choose the greatest 3 digit number which is exactly divisible by 35?

Ans 1. 990

2. 945

3. 980

4. 970

Question ID : 54592762552

Q.8 Which among $11/13, 6/7, 7/9$ and $5/6$ is second largest fraction?

Ans 1. $5/6$

2. $11/13$

3. $7/9$

4. $6/7$

Question ID : 54592762556

Q.9 In what ratio rice costing Rs 60/kg should be mixed with rice costing Rs 90/kg so that on selling the mixture at Rs 80/kg there is a profit of 25 percent?

Ans 1. 13 : 2

2. 11 : 2

3. 3 : 2

4. 1 : 2

Question ID : 54592762562

Q.10

If $\frac{5}{6} \div \frac{6}{7} \times K - \frac{8}{9} \div 1\frac{3}{5} + \frac{3}{4} \times 3\frac{1}{3} = 2\frac{7}{9}$, then what is the value of K?

Ans 1. $8/7$

2. 1

3. $7/6$

4. $6/7$

Question ID : 54592762554

Q.11 A train passes two platforms of length 400 metres and 200 metres in 40 seconds and 30 seconds respectively. What is the length of the train?

Ans 1. 600 metres

2. 400 metres

3. 500 metres

4. 300 metres

Question ID : 54592762565

Q.12 A bus travels at a speed of 30 m/s. for 6 hours. What is the distance travelled by the bus?

- Ans
- 1. 50 km
 - 2. 30000 km
 - 3. 180 km
 - 4. 648 km

Question ID : 54592762564

Q.13 Two numbers are more than the third number by 20 percent and 60 percent respectively. First number is what percent of the second number?

- Ans
- 1. 50 percent
 - 2. 75 percent
 - 3. 25 percent
 - 4. 40 percent

Question ID : 54592762559

Q.14 Rs 3600 is divided among Ram, Mohan and Shyam in the ratio of 2 : 5 : 9 respectively. What is the difference between the share of Mohan and Shyam?

- Ans
- 1. Rs 600
 - 2. Rs 900
 - 3. Rs 800
 - 4. Rs 700

Question ID : 54592762561

Q.15 Average of 6 observations is 60. Average of first three is thrice the average of other three. What is the sum of first three observations?

- Ans
- 1. 270
 - 2. 320
 - 3. 280
 - 4. 240

Question ID : 54592762557

Q.16 If the diameter of a sphere is 7 cm, then what is the surface area of the sphere?

- Ans
- 1. 154 cm^2
 - 2. 256 cm^2
 - 3. 616 cm^2
 - 4. 164 cm^2

Question ID : 54592762567

Q.17 A sum of Rs 20000 is invested in a scheme of compound interest. The interest rate is 40 percent. If the interest is compounded half yearly, then what will be the interest after 2 year?

- Ans
- 1. Rs 21472
 - 2. Rs 20876
 - 3. Rs 28476
 - 4. Rs 19866

Q.18 A, B and C alone can do a work in 20, 24 and 30 days respectively. A leaves the work 10 days before it is complete and B leaves the work 4 days after A leaves the work. If C completes the remaining work alone, then how many days will it take for the total work to get completed?

- Ans
- 1. 12 days
 - 2. $45/4$ days
 - 3. 15 days
 - 4. 14 days

Q.19 Smaller diagonal of a rhombus is equal to length of its sides. If length of each side is 4 cm, then what is the area of an equilateral triangle whose side is equal to the bigger diagonal of the rhombus?

- Ans
- 1. $12\sqrt{3}$ cm²
 - 2. $8\sqrt{3}$ cm²
 - 3. $32\sqrt{3}$ cm²
 - 4. $64\sqrt{3}$ cm²

Q.20 80 percent of the cost price of an article is equal to the 50 percent of its selling price. What is the profit percentage?

- Ans
- 1. 75 percent
 - 2. 50 percent
 - 3. 60 percent
 - 4. 30 percent

Section : General English

Q.1 Rearrange the parts of the sentence in correct order.

It's hard to please every

P: feminism, you can sometimes run

Q: into enormous, raucous disagreement

R: perspective, and with the realm of

- Ans
- 1. RPQ
 - 2. QRP
 - 3. PQR
 - 4. RQP

Q.2 In the following question, out of the given four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase.

A CHIP ON ONE'S SHOULDER

- Ans
- 1. Praising someone
 - 2. A feeling of resentment

- 3. At one's disposal
- 4. Talking nonsense

Question ID : 54592762585

Q.3 A sentence has been given with a blank to be filled with an appropriate word. Choose the correct alternative.

The goods shall arrive _____ a week.

- Ans
- 1. within
 - 2. on
 - 3. by
 - 4. into

Question ID : 54592762576

Q.4 In the following question, out of the given four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase.

A PENNY FOR YOUR THOUGHTS

- Ans
- 1. Wasting time in useless effort or task
 - 2. A way of asking what someone is thinking
 - 3. Paying someone for their advice
 - 4. Asking for money after advising someone

Question ID : 54592762584

Q.5 Improve the bracketed part of the sentence.

Shiv died (from) tuberculosis.

- Ans
- 1. No Improvement
 - 2. of
 - 3. by
 - 4. with

Question ID : 54592762574

Q.6 Choose the word that can substitute the given sentence.

One who is hard to please (very selective in his habits)

- Ans
- 1. Fastidious
 - 2. Narcissist
 - 3. Heretic
 - 4. Mercenary

Question ID : 54592762586

Q.7 Choose the word that means the same as the given word.

Challenge

- Ans
- 1. Embrace
 - 2. Abide
 - 3. Confront
 - 4. Support

Question ID : 54592762581

Q.8 Find the part of the given sentence that has an error in it. If there is no error, choose 'No error'.

Modern workplaces often feel like theaters (1)/ which we pretend to work rather (2)/ than get actual work done (3)/. No error (4)

- Ans
- 1. 3
 - 2. 1
 - 3. 2
 - 4. 4

Question ID : 54592762572

Q.9 Rearrange the parts of the sentence in correct order.

I'd prefer we
P: both digital and analog
Q: dedicate our conversations
R: to far thornier questions

- Ans
- 1. PQR
 - 2. RPQ
 - 3. QPR
 - 4. RQP

Question ID : 54592762579

Q.10 Choose the word that is opposite in meaning to the given word.

Noisy

- Ans
- 1. Clamorous
 - 2. Moderate
 - 3. Harsh
 - 4. Talkative

Question ID : 54592762580

Q.11 A sentence has been given with a blank to be filled with an appropriate word. Choose the correct alternative.

The ladder was placed _____ the wall.

- Ans
- 1. by
 - 2. off
 - 3. with
 - 4. against

Question ID : 54592762577

Q.12 Improve the bracketed part of the sentence.

He (were going) to the school.

- Ans
- 1. have going
 - 2. was going
 - 3. No Improvement
 - 4. were gone

Question ID : 54592762575

Q.13 Find the part of the given sentence that has an error in it. If there is no error, choose 'No

error'.

She could see in the open square (1)/ under her house the tops of the trees (2)/ that were all aquiver with the new spring life (3)/. No error (4)

- Ans
- 1. 1
 - 2. 2
 - 3. 4
 - 4. 3

Question ID : 54592762573

Q.14 In the given question, four words are given out of which one word is correctly spelt. Choose the correctly spelt word.

- Ans
- 1. Terror
 - 2. Tearor
 - 3. Teror
 - 4. Teerror

Question ID : 54592762582

Q.15 In the given question, four words are given out of which one word is correctly spelt. Choose the correctly spelt word.

- Ans
- 1. Realice
 - 2. Realise
 - 3. Relies
 - 4. Reelise

Question ID : 54592762583

Comprehension:

Read the following information carefully and answer the given questions.

The Alps are the youngest and highest mountain system in Europe. They stretch across the western and southern part of the continent in a broad arc. The mountain range starts near the Mediterranean Sea on the border between Nice, France and Italy to Lake Geneva. Then it curves north and eastward through northern Italy, Switzerland Liechtenstein, southern Germany, Austria and Slovenia. There they touch the Danube River and meld with the adjacent plain. The Alps are about 1,000 km long, the broadest section over 260 km wide. The highest peak, Mont Blanc, situated on the border between France, Italy and Switzerland, rises 4807 meters above sea level. Other famous peaks are the Monte Rosa, the Matterhorn, the Grossglockner and the Zugspitze. Some 750 miles long and more than 125 miles wide at their broadest point between Garmisch-Partenkirchen, Germany, and Verona, Italy, the Alps cover more than 80,000 square miles. They are the most prominent of Western Europe's physiographic regions. The Alpine crests isolate one European region from another and are the source of many of Europe's major rivers, such as the Rhône, Rhine, Po, and numerous tributaries of the Danube. Thus, waters from the Alps ultimately reach the North, Mediterranean, Adriatic, and Black seas. The Alps emerged during the Alpine orogeny that began about 65 million years ago as the Mesozoic Era was drawing to a close. At the end of the Paleozoic Era, about 250 million years ago, eroded Hercynian mountains, similar to the present Massif Central in France and Bohemian Massif embracing parts of Germany, Austria, Poland, and the Czech Republic, stood where the Alps are now located. From the Mediterranean to Vienna, the Alps are divided into Western, Central, and Eastern segments, each of which consists of several distinct ranges.

SubQuestion No : 16

Q.16 How far do The Alps stretch?

- Ans
- 1. Geneva to Danube
 - 2. Nice to Danube
 - 3. Italy to Slovenia
 - 4. France to Slovenia

Question ID : 54592762589

Comprehension:

Read the following information carefully and answer the given questions.

The Alps are the youngest and highest mountain system in Europe. They stretch across the western and southern part of the continent in a broad arc. The mountain range starts near the Mediterranean Sea on the border between Nice, France and Italy to Lake Geneva. Then it curves north and eastward through northern Italy, Switzerland Liechtenstein, southern Germany, Austria and Slovenia. There they touch the Danube River and meld with the adjacent plain. The Alps are about 1,000 km long, the broadest section over 260 km wide. The highest peak, Mont Blanc, situated on the border between France, Italy and Switzerland, rises 4807 meters above sea level. Other famous peaks are the Monte Rosa, the Matterhorn, the Grossglockner and the Zugspitze. Some 750 miles long and more than 125 miles wide at their broadest point between Garmisch-Partenkirchen, Germany, and Verona, Italy, the Alps cover more than 80,000 square miles. They are the most prominent of Western Europe's physiographic regions. The Alpine crests isolate one European region from another and are the source of many of Europe's major rivers, such as the Rhône, Rhine, Po, and numerous tributaries of the Danube. Thus, waters from the Alps ultimately reach the North, Mediterranean, Adriatic, and Black seas. The Alps emerged during the Alpine orogeny that began about 65 million years ago as the Mesozoic Era was drawing to a close. At the end of the Paleozoic Era, about 250 million years ago, eroded Hercynian mountains, similar to the present Massif Central in France and Bohemian Massif embracing parts of Germany, Austria, Poland, and the Czech Republic, stood where the Alps are now located. From the Mediterranean to Vienna, the Alps are divided into Western, Central, and Eastern segments, each of which consists of several distinct ranges.

SubQuestion No : 17

Q.17 What does the term 'Orogeny' in the passage mean?

- Ans
- 1. A geological process
 - 2. A point of contact
 - 3. A time period
 - 4. An event that took place on The Alps

Question ID : 54592762591

Comprehension:

Read the following information carefully and answer the given questions.

The Alps are the youngest and highest mountain system in Europe. They stretch across the western and southern part of the continent in a broad arc. The mountain range starts near the Mediterranean Sea on the border between Nice, France and Italy to Lake Geneva. Then it curves north and eastward through northern Italy, Switzerland Liechtenstein, southern Germany, Austria and Slovenia. There they touch the Danube River and meld with the adjacent plain. The Alps are about 1,000 km long, the broadest section over 260 km wide. The highest peak, Mont Blanc, situated on the border between France, Italy and Switzerland, rises 4807 meters above sea level. Other famous peaks are the Monte Rosa, the Matterhorn, the Grossglockner and the Zugspitze. Some 750 miles long and more than 125 miles wide at their broadest point between Garmisch-Partenkirchen, Germany, and Verona, Italy, the Alps cover more than 80,000 square miles. They are the most prominent of Western Europe's physiographic regions. The Alpine crests isolate one European region from another and are the source of many of Europe's major rivers, such as the Rhône, Rhine, Po, and numerous tributaries of the Danube. Thus, waters from the Alps ultimately reach the North, Mediterranean, Adriatic, and Black seas. The Alps emerged during the Alpine orogeny that began about 65 million years ago as the Mesozoic Era was drawing to a close. At the end of the Paleozoic Era, about 250 million years ago, eroded Hercynian mountains, similar to the present Massif Central in France and Bohemian Massif embracing parts of Germany, Austria, Poland, and the Czech Republic, stood where the Alps are now located. From the Mediterranean to Vienna, the Alps are divided into Western, Central, and Eastern segments, each of which consists of several distinct ranges.

SubQuestion No : 18

Q.18 Choose the word from the passage that means the same as 'attrition'.

- Ans
- 1. Erosion
 - 2. Physiography
 - 3. Region
 - 4. Segment

Question ID : 54592762592

Comprehension:

Read the following information carefully and answer the given questions.

The Alps are the youngest and highest mountain system in Europe. They stretch across the

western and southern part of the continent in a broad arc. The mountain range starts near the Mediterranean Sea on the border between Nice, France and Italy to Lake Geneva. Then it curves north and eastward through northern Italy, Switzerland Liechtenstein, southern Germany, Austria and Slovenia. There they touch the Danube River and meld with the adjacent plain. The Alps are about 1,000 km long, the broadest section over 260 km wide. The highest peak, Mont Blanc, situated on the border between France, Italy and Switzerland, rises 4807 meters above sea level. Other famous peaks are the Monte Rosa, the Matterhorn, the Grossglockner and the Zugspitze. Some 750 miles long and more than 125 miles wide at their broadest point between Garmisch-Partenkirchen, Germany, and Verona, Italy, the Alps cover more than 80,000 square miles. They are the most prominent of Western Europe's physiographic regions. The Alpine crests isolate one European region from another and are the source of many of Europe's major rivers, such as the Rhône, Rhine, Po, and numerous tributaries of the Danube. Thus, waters from the Alps ultimately reach the North, Mediterranean, Adriatic, and Black seas. The Alps emerged during the Alpine orogeny that began about 65 million years ago as the Mesozoic Era was drawing to a close. At the end of the Paleozoic Era, about 250 million years ago, eroded Hercynian mountains, similar to the present Massif Central in France and Bohemian Massif embracing parts of Germany, Austria, Poland, and the Czech Republic, stood where the Alps are now located. From the Mediterranean to Vienna, the Alps are divided into Western, Central, and Eastern segments, each of which consists of several distinct ranges.

SubQuestion No : 19

Q.19 How many rivers are affected by The Alps?

- Ans 1. 6
 2. 4
 3. 5
 4. 3

Question ID : 54592762590

Comprehension:

Read the following information carefully and answer the given questions.

The Alps are the youngest and highest mountain system in Europe. They stretch across the western and southern part of the continent in a broad arc. The mountain range starts near the Mediterranean Sea on the border between Nice, France and Italy to Lake Geneva. Then it curves north and eastward through northern Italy, Switzerland Liechtenstein, southern Germany, Austria and Slovenia. There they touch the Danube River and meld with the adjacent plain. The Alps are about 1,000 km long, the broadest section over 260 km wide. The highest peak, Mont Blanc, situated on the border between France, Italy and Switzerland, rises 4807 meters above sea level. Other famous peaks are the Monte Rosa, the Matterhorn, the Grossglockner and the Zugspitze. Some 750 miles long and more than 125 miles wide at their broadest point between Garmisch-Partenkirchen, Germany, and Verona, Italy, the Alps cover more than 80,000 square miles. They are the most prominent of Western Europe's physiographic regions. The Alpine crests isolate one European region from another and are the source of many of Europe's major rivers, such as the Rhône, Rhine, Po, and numerous tributaries of the Danube. Thus, waters from the Alps ultimately reach the North, Mediterranean, Adriatic, and Black seas. The Alps emerged during the Alpine orogeny that began about 65 million years ago as the Mesozoic Era was drawing to a close. At the end of the Paleozoic Era, about 250 million years ago, eroded Hercynian mountains, similar to the present Massif Central in France and Bohemian Massif embracing parts of Germany, Austria, Poland, and the Czech Republic, stood where the Alps are now located. From the Mediterranean to Vienna, the Alps are divided into Western, Central, and Eastern segments, each of which consists of several distinct ranges.

SubQuestion No : 20

Q.20 Where are The Alps located?

- Ans 1. Eastern Europe
 2. Western Europe
 3. Black Sea
 4. Mediterranean Sea

Question ID : 54592762588

Section : General Hindi

Q.1 दिए गए शब्द का विलोम शब्द ज्ञात कीजिए।

संगम

Ans

1. बिछुड़न
 2. मिलन
 3. दण्ड
 4. देह

Question ID : 54592762597

Q.2 दिए गए शब्द का स्त्रीलिंग ज्ञात कीजिए।

बाज

- Ans 1. मादा बाज
 2. बाधी
 3. बाजी
 4. बाजनी

Question ID : 54592762601

Q.3 दिए गए शब्द के रूप की पहचान कीजिए।

मुर्गा

- Ans 1. शुद्धवचन
 2. द्विवचन
 3. एकवचन
 4. बहुवचन

Question ID : 54592762602

Q.4 दिए गए वाक्य में किस प्रकार का कारक है ज्ञात कीजिए।

महक ने राम को शरबत शरबत पिलाया।

- Ans 1. कर्म
 2. सम्प्रदान
 3. करण
 4. अधिकरण

Question ID : 54592762603

Q.5 दिए गए वाक्य में रेखांकित भाग किस प्रकार का सर्वनाम है ज्ञात कीजिए।

बाहर दरवाजे पर कोई खड़ा है।

- Ans 1. निश्चयवाचक
 2. पुरुषवाचक
 3. अनिश्चयवाचक
 4. प्रश्नवाचक

Question ID : 54592762594

Q.6 निम्नलिखित में से शुद्ध वर्तनी का चयन कीजिए।

- Ans 1. अनुरक्त
 2. अनुरकत
 3. अनूरक्त
 4. अनरुक्त

Q.7 दिए गए वाक्य में रेखांकित भाग किस प्रकार की क्रिया है ज्ञात कीजिए।

चिड़िया चहचहाती है।

- Ans
- 1. अकर्मक
 - 2. सकर्मक
 - 3. प्रेरणार्थक
 - 4. कृदंत

Q.8 दिए गए वाक्य में किस प्रकार के विराम चिह्न का उपयोग किया जाएगा ज्ञात कीजिए।

मैं क्यों सारा कार्य करूँ

- Ans
- 1. ,
 - 2. ;
 - 3. !
 - 4. ?

Q.9 दिए गए शब्दों के समूह का उचित अर्थ ज्ञात कीजिए।

खालाजी का घर

- Ans
- 1. सदा पढ़ने में लगा रहना।
 - 2. चुगली करना।
 - 3. चुपके चुपके बातें करना।
 - 4. अत्यंत आसान काम।

Q.10 दिए गए शब्दों के समूह में किस प्रकार का विशेषण है ज्ञात कीजिए।

दो किलो सेब

- Ans
- 1. समूहबोधक
 - 2. संकेतवाचक
 - 3. परिमाणवाचक
 - 4. गुणवाचक

Q.11 निम्नलिखित में से कौन सा वाक्य शुद्ध है?

- Ans
- 1. गिरिश को काटकर सेब दो।
 - 2. अनेक लोगों ने खाना खाया।
 - 3. दिल्ली संगीता की बहन गई है।
 - 4. वह लौट आये।

Q.12 दिए गए शब्द का पर्यायवाची ज्ञात कीजिए।

सुरभी

- Ans
- 1. भद्रा

- 2. गीता
- 3. किरण
- 4. पपीहा

Question ID : 54592762599

Q.13 दिए गए वाक्य में रेखांकित भाग के पद का भेद ज्ञात कीजिए।

विनीत ने कक्षा में शोर मचाया।

- Ans
- 1. व्यक्तिवाचक
 - 2. समूहवाचक
 - 3. भाववाचक
 - 4. जातिवाचक

Question ID : 54592762593

Q.14 दिए गए वाक्यांश के लिए उचित शब्द का चयन कीजिए।

जिसमें किसी कार्य करने का सामर्थ्य हो

- Ans
- 1. सौम्य
 - 2. सांमरण
 - 3. समर्थ
 - 4. सौरभ

Question ID : 54592762598

Q.15 दिए गए वाक्य के लिए सही लोकोक्ति का चयन कीजिए।

आश्रय दाता से बैर

- Ans
- 1. छोटा मुँह और बड़ी बात।
 - 2. जल में रहकर मगर से बैर।
 - 3. खोदा पहाड़ निकली चुहिया।
 - 4. ऊँची दुकान फीका पकवान।

Question ID : 54592762607

Comprehension:

गद्यांश को ध्यानपूर्वक पढ़ें तथा प्रत्येक प्रश्न में चार विकल्पों में से सही विकल्प चुने।

“खुशी” इस शब्द का शाब्दिक अर्थ होता है। रमजान के 1 माह के बाद आने वाला यह त्योहार सबके दिलों में खुशियाँ बिखेर देता है। इस्लाम में प्रत्येक मुसलमान के लिए पांच कर्तव्यों का पालन करना अत्यावश्यक है। उनमें से एक रोजा रखना प्रमुख कर्तव्य में आता है। रोजे के दौरान दिनभर ना तो कुछ खाना होता है, ना ही पीना। फितर शब्द का अर्थ होता है पुण्य करना। इस दिन अधिक से अधिक पुण्य के काम किए जाते हैं। इसके लिए कुछ विधान भी बनाए जाते हैं परिवार के प्रत्येक सदस्य की ओर से पौने दो सेर आटा गेहूँ या इसकी कीमत के बराबर रुपया पैसा गरीब अपाहिज लोगों को वितरित किया जाता है। उन्हें करते समय देने वाले के हृदय में जवाब नहीं होना चाहिए कि मैं दे रहा हूँ यह ईद रमजान के 30 दिनों के बाद आती है इसको मीठी ईद भी कहते हैं।

SubQuestion No : 16

Q.16 दिए गए शब्द से क्या अभिप्राय है ज्ञात कीजिए।

फितर

- Ans
- 1. खुशियाँ
 - 2. ईद
 - 3. पुण्य करना
 - 4. उमंग

Question ID : 54592762613

Comprehension:

गद्यांश को ध्यानपूर्वक पढ़ें तथा प्रत्येक प्रश्न में चार विकल्पों में से सही विकल्प चुने।

“खुशी” इस शब्द का शाब्दिक अर्थ होता है। रमजान के 1 माह के बाद आने वाला यह त्योहार सबके दिलों में खुशियाँ बिखेर देता है। इस्लाम में प्रत्येक मुसलमान के लिए पांच कर्तव्यों का पालन करना अत्यावश्यक है। उनमें से एक रोजा रखना प्रमुख कर्तव्य में आता है। रोजे के दौरान दिनभर ना तो कुछ खाना होता है, ना ही पीना। फितर शब्द का अर्थ होता है पुण्य करना। इस दिन अधिक से अधिक पुण्य के काम किए जाते हैं। इसके लिए कुछ विधान भी बनाए जाते हैं परिवार के प्रत्येक सदस्य की ओर से पौने दो सेर आटा गेहूं या इसकी कीमत के बराबर रुपया पैसा गरीब अपाहिज लोगों को वितरित किया जाता है। उन्हें करते समय देने वाले के हृदय में जवाब नहीं होना चाहिए कि मैं दे रहा हूँ यह ईद रमजान के 30 दिनों के बाद आती है इसको मीठी ईद भी कहते हैं।

SubQuestion No : 17

Q.17 ईद का शाब्दिक अर्थ क्या है?

- Ans
- 1. मीठी
 - 2. पर्व
 - 3. खुशी
 - 4. त्योहार

Question ID : 54592762610

Comprehension:

गद्यांश को ध्यानपूर्वक पढ़ें तथा प्रत्येक प्रश्न में चार विकल्पों में से सही विकल्प चुने।

“खुशी” इस शब्द का शाब्दिक अर्थ होता है। रमजान के 1 माह के बाद आने वाला यह त्योहार सबके दिलों में खुशियाँ बिखेर देता है। इस्लाम में प्रत्येक मुसलमान के लिए पांच कर्तव्यों का पालन करना अत्यावश्यक है। उनमें से एक रोजा रखना प्रमुख कर्तव्य में आता है। रोजे के दौरान दिनभर ना तो कुछ खाना होता है, ना ही पीना। फितर शब्द का अर्थ होता है पुण्य करना। इस दिन अधिक से अधिक पुण्य के काम किए जाते हैं। इसके लिए कुछ विधान भी बनाए जाते हैं परिवार के प्रत्येक सदस्य की ओर से पौने दो सेर आटा गेहूं या इसकी कीमत के बराबर रुपया पैसा गरीब अपाहिज लोगों को वितरित किया जाता है। उन्हें करते समय देने वाले के हृदय में जवाब नहीं होना चाहिए कि मैं दे रहा हूँ यह ईद रमजान के 30 दिनों के बाद आती है इसको मीठी ईद भी कहते हैं।

SubQuestion No : 18

Q.18 इस्लाम में मुस्लिम वर्ग के लिए कुल कितने कर्तव्यों का प्रावधान है?

- Ans
- 1. तीन
 - 2. पाँच
 - 3. चार
 - 4. छः

Question ID : 54592762611

Comprehension:

गद्यांश को ध्यानपूर्वक पढ़ें तथा प्रत्येक प्रश्न में चार विकल्पों में से सही विकल्प चुने।

“खुशी” इस शब्द का शाब्दिक अर्थ होता है। रमजान के 1 माह के बाद आने वाला यह त्योहार सबके दिलों में खुशियाँ बिखेर देता है। इस्लाम में प्रत्येक मुसलमान के लिए पांच कर्तव्यों का पालन करना अत्यावश्यक है। उनमें से एक रोजा रखना प्रमुख कर्तव्य में आता है। रोजे के दौरान दिनभर ना तो कुछ खाना होता है, ना ही पीना। फितर शब्द का अर्थ होता है पुण्य करना। इस दिन अधिक से अधिक पुण्य के काम किए जाते हैं। इसके लिए कुछ विधान भी बनाए जाते हैं परिवार के प्रत्येक सदस्य की ओर से पौने दो सेर आटा गेहूं या इसकी कीमत के बराबर रुपया पैसा गरीब अपाहिज लोगों को वितरित किया जाता है। उन्हें करते समय देने वाले के हृदय में जवाब नहीं होना चाहिए कि मैं दे रहा हूँ यह ईद रमजान के 30 दिनों के बाद आती है इसको मीठी ईद भी कहते हैं।

SubQuestion No : 19

Q.19 ईद कब आती है?

- Ans
- 1. रमजान के एक माह बाद।
 - 2. कभी भी।
 - 3. रमजान में।
 - 4. रमजान के दूसरे दिन।

Question ID : 54592762609

Comprehension:

गद्यांश को ध्यानपूर्वक पढ़ें तथा प्रत्येक प्रश्न में चार विकल्पों में से सही विकल्प चुने।

“खुशी” इस शब्द का शाब्दिक अर्थ होता है। रमजान के 1 माह के बाद आने वाला यह त्योहार सबके दिलों में खुशियाँ बिखेर देता है। इस्लाम में प्रत्येक मुसलमान के लिए पांच कर्तव्यों का पालन करना अत्यावश्यक है। उनमें से एक रोजा रखना प्रमुख कर्तव्य में आता है। रोजे के दौरान दिनभर ना तो कुछ खाना होता है, ना ही पीना। फिटर शब्द का अर्थ होता है पुण्य करना। इस दिन अधिक से अधिक पुण्य के काम किए जाते हैं। इसके लिए कुछ विधान भी बनाए जाते हैं परिवार के प्रत्येक सदस्य की ओर से पौने दो सेर आटा गेहूं या इसकी कीमत के बराबर रुपया पैसा गरीब अपाहिज लोगों को वितरित किया जाता है। उन्हें करते समय देने वाले के हृदय में जवाब नहीं होना चाहिए कि मैं दे रहा हूँ यह ईद रमजान के 30 दिनों के बाद आती है इसको मीठी ईद भी कहते हैं।

SubQuestion No : 20

Q.20 उपर्युक्त गद्यांश का उचित शीर्षक क्या होगा?

- Ans
- 1. रोजा
 - 2. ईद का त्योहार
 - 3. मीठी ईद
 - 4. रमजान

Question ID : 54592762612

Section : **Discipline1**

Q.1 Identify the INCORRECT statement.

- Ans
- 1. Contamination of ground water can result in high costs for alternative water supplies
 - 2. Contamination of ground water can result in potential health problems
 - 3. Contamination of ground water can result in better drinking water quality
 - 4. Contamination of ground water can result in loss of water supply

Question ID : 54592762633

Q.2 The substances in a solution that offer resistance to changes in pH as acids or bases are added to or formed within the solution are called:

- Ans
- 1. catalysts
 - 2. retarders
 - 3. enzymes
 - 4. buffers

Question ID : 54592762615

Q.3 In a lined open well, the entry of water is from the _____.

- Ans
- 1. sides
 - 2. both sides and bottom
 - 3. inclines
 - 4. bottom

Question ID : 54592762626

Q.4 Which of the following is NOT a method of drilling tube wells?

- Ans
- 1. Darcy's method
 - 2. Cable tool method
 - 3. Hydraulic rotary method
 - 4. Water jet boring method

Question ID : 54592762624

Q.5 The federal law which established three drinking water source protection programs: the Wellhead Protection Program, Sole Source Aquifer Program and the Source Water Assessment Program is:

- Ans
- 1. Safe Drinking Water Act
 - 2. The Water Act
 - 3. Resource Conservation and Recovery Act
 - 4. Ground Water Protection Act

Question ID : 54592762630

Q.6 Interactions between the abiotic aspects of nature and specific living organisms together form:

- Ans
- 1. the atmosphere
 - 2. the ecosystem
 - 3. nature
 - 4. the biosphere

Question ID : 54592762618

Q.7 A unimodal function is one that has only:

- Ans
- 1. one peak (maximum) or valley (minimum) in a given interval
 - 2. one peak (minimum) or valley (minimum) in a given interval
 - 3. one peak (maximum) or valley (maximum) in a given interval
 - 4. one peak (minimum) or valley (maximum) in a given interval

Question ID : 54592762620

Q.8 The liquid from a landfill containing contaminants which ultimately pollute ground water is called:

- Ans
- 1. filtrate
 - 2. percolate
 - 3. leachate
 - 4. run off

Question ID : 54592762631

Q.9 Perched aquifer is a special type of:

- Ans
- 1. confined aquifer
 - 2. artesian aquifer
 - 3. transit aquifer
 - 4. unconfined aquifer

Question ID : 54592762623

Q.10 The Zoological Survey of India was established in:

- Ans
- 1. 1913
 - 2. 1916
 - 3. 1923
 - 4. 1926

Question ID : 54592762617

Q.11 Identify the INCORRECT statement.

- Ans 1. Tube wells should be selected at a site where large underground water reservoirs exist
2. The area for the tube well should have an access for the availability of electric supply
3. Tube wells should not be located where there is a depression in the valley
4. The area around the tube well should have intensive cultivation and it has to be located at the centre.

Question ID : 54592762628

Q.12 In constant level pumping test, when the depression head is kept equal to half of the critical head, such a head is known as:

- Ans 1. equilateral head
2. yield head
3. constant head
4. working head

Question ID : 54592762627

Q.13 When the rate of the reaction is proportional to the square of the concentration of one of the reactants or to the product of the concentrations of two different reactants, then it is:

- Ans 1. first order reaction
2. second order reaction
3. complex order reaction
4. zero order reaction

Question ID : 54592762614

Q.14 Which among the following is the world's single largest contributor of greenhouse gases and is one of the most important causes of global warming?

- Ans 1. Wood
2. Oil
3. Coal
4. Biogas

Question ID : 54592762619

Q.15 The Brownian movement was invented by:

- Ans 1. Robert John
2. Robert Bean
3. Robert Brown
4. Robert Thomas

Question ID : 54592762616

Q.16 Which of the following CANNOT be considered as elimination methods for optimisation techniques to solve environmental problems?

- Ans 1. Golden section method
2. Dichotomous search
3. Direct root method
4. Fibonacci method

Question ID : 54592762621

Q.17 Which of the following is NOT a source of ground water pollution?

- Ans
- 1. Septic tanks and soak pits
 - 2. Improper disposal of hazardous waste
 - 3. Use of pesticide and fertilizers
 - 4. Water supply lines

Question ID : 54592762632

Q.18 The depletion of the groundwater level in bore wells during summer is due to:

- Ans
- 1. high water level in aquifers
 - 2. both availability of water in the nearest water body and high water level in aquifers
 - 3. insufficient knowledge of sub-surface geological conditions of the region during drilling
 - 4. availability of water in the nearest water body

Question ID : 54592762629

Q.19 Which method is used to solve problems where the interval in which the optimum is known to lie is finite?

- Ans
- 1. Exorbitant search
 - 2. Finite search
 - 3. Exhaustive search
 - 4. Intensive search

Question ID : 54592762622

Q.20 The process of interposing coarse material such as gravel and coarse sand between the well pipe and the aquifer soil is called:

- Ans
- 1. well shrouding
 - 2. well shearing
 - 3. well surging
 - 4. well shredding

Question ID : 54592762625

Section : Discipline2

Q.1 Pressure surge caused when the velocity of water in the pipe is checked suddenly by sudden closure of a valve is called:

- Ans
- 1. water hammer
 - 2. water thrust
 - 3. water buckling
 - 4. water surge

Question ID : 54592762647

Q.2 Which organism is seen in many inland, standing bodies of water and can often be seen forming a surface scum or bloom?

- Ans
- 1. Cyanobacteria
 - 2. Cryptosporidium
 - 3. Campylobacter
 - 4. Cyclospora

Question ID : 54592762637

Q.3 The physical washing operation that is used to reduce chemical conditioning requirements is:

- Ans
- 1. elutriation
 - 2. eluviation
 - 3. heat treatment
 - 4. elution

Question ID : 54592762642

Q.4 Who are the causative agents of typhoid and paratyphoid fever?

- Ans
- 1. Species of Shigella
 - 2. Species of Vibrio
 - 3. Species of Salmonella
 - 4. Species of Yersinia

Question ID : 54592762636

Q.5 Identify the INCORRECT statement.

Pipe corrosion can be prevented by:

- Ans
- 1. proper selection of material
 - 2. providing protective linings and coatings
 - 3. treatment of water
 - 4. anodic protection

Question ID : 54592762648

Q.6 Identify the INCORRECT statement with respect to water supply pipes.

- Ans
- 1. Plastic pipes are good insulators
 - 2. Plastic pipes are free from corrosion
 - 3. Plastic pipes are highly resistant to acidic waters
 - 4. Plastic pipes are more prone to damage due to freezing and thawing of water in closed pipes

Question ID : 54592762646

Q.7 Lack of proper mixing in the conventional digesters leads to:

- Ans
- 1. stratification
 - 2. gratification
 - 3. solidification
 - 4. liquification

Question ID : 54592762641

Q.8 Identify the INCORRECT statement.

- Ans
- 1. In aerobic-anaerobic processes, stabilisation of waste is brought about only by facultative bacteria
 - 2. Constant aeration is achieved in trickling filters
 - 3. MLSS content is generally taken as an index of the mass of micro-organisms in the aeration tank

4. Thickening is a procedure used to increase the solid content of sludge by removing a portion of liquid fraction.

Question ID : 54592762639

Q.9 The isotherm which assumes that a single adsorbate binds to a single site on the adsorbent and that all surface sites on the adsorbent have the same affinity for the adsorbate is:

- Ans
- 1. Langmuir isotherm
 - 2. BET isotherm
 - 3. Freundlich isotherm
 - 4. Linear isotherm

Question ID : 54592762634

Q.10 The fecal test requires precise incubation temperatures of:

- Ans
- 1. 45.5 °C ± 0.2 °C
 - 2. 44.5 °C ± 0.2 °C
 - 3. 45.5 °C ± 0.5 °C
 - 4. 44.5 °C ± 0.5 °C

Question ID : 54592762638

Q.11 The maximum velocity of flow at which scouring action takes place is known as:

- Ans
- 1. non-scouring velocity
 - 2. Baldwin velocity
 - 3. hydraulic velocity
 - 4. scouring velocity

Question ID : 54592762651

Q.12 The digestion of settled sludge in a septic tank is carried out by:

- Ans
- 1. Both aerobic decomposition process and anaerobic decomposition process
 - 2. aerobic decomposition process
 - 3. anaerobic decomposition process
 - 4. claustraphobic process

Question ID : 54592762643

Q.13 In the biological nitrification, ammonia is oxidised to nitrite by:

- Ans
- 1. Nycelium
 - 2. Nicotineamide
 - 3. Nitrosomonas
 - 4. Nitrobacter

Question ID : 54592762645

Q.14 The flexible joints in sewers are made flexible by using:

- Ans
- 1. bitumen
 - 2. cement mortar
 - 3. polycarbonate
 - 4. rubber rings

Q.15 Which bacteria is used as an indicator of fecal pollution?

- Ans 1. Escherichia coli
 2. Eubacterium
 3. Eubacteriales
 4. Excellospora

Question ID : 54592762635

Q.16 The combustion of sludge in a reactor under high temperature, along with auxiliary fuels (if needed) is called:

- Ans 1. polarisation
 2. gasification
 3. congestion
 4. incineration

Question ID : 54592762640

Q.17 Wastewater from bathrooms, kitchens, washing places and wash basins is called:

- Ans 1. garbage
 2. sewerage
 3. sullage
 4. sewage

Question ID : 54592762650

Q.18 Which is the valve which allows water to flow in one direction only?

- Ans 1. Scour valve
 2. Reflux valve
 3. Air relief valve
 4. Sluice valve

Question ID : 54592762649

Q.19 What is the hydraulic mean depth from a circular sewer running half full?

- Ans 1. $R = D/2$
 2. $R = D/4$
 3. $R = D/8$
 4. $R = D/6$

Question ID : 54592762652

Q.20 The biological process developed for the removal of phosphorous from treated wastewater effluent is:

- Ans 1. Phosstrip process
 2. Bardenpho process
 3. both Bardenpho process and Phosstrip process
 4. Elution process

Question ID : 54592762644

Q.1 Identify the INCORRECT statement. Gel electrophoresis:

- Ans
- 1. is difficult to polymerise in place
 - 2. is an excellent anti-convective gel
 - 3. has little residual charge on the polymer
 - 4. can be polymerised in a variety of pore sizes

Question ID : 54592762669

Q.2 Which of the following executes programming codes line-by-line, rather than the whole programme?

- Ans
- 1. Translator
 - 2. Interpreter
 - 3. Compiler
 - 4. Executer

Question ID : 54592762660

Q.3 A computer cannot 'boot' if it does NOT have a/an:

- Ans
- 1. linker
 - 2. operating system
 - 3. compiler
 - 4. assembler

Question ID : 54592762657

Q.4 Which of the following is NOT an effect of concentration polarisation?

- Ans
- 1. Increase in the viscosity of the solution
 - 2. Solute enters into the pores and the pores are blocked partially or completely
 - 3. Formation of gel over the membrane surface
 - 4. Decrease in osmotic pressure of the solution

Question ID : 54592762668

Q.5 Which of the following is NOT a hazardous characteristic of a waste?

- Ans
- 1. Corrosivity
 - 2. Reactivity
 - 3. Ignitability
 - 4. Compressibility

Question ID : 54592762666

Q.6 Let $f(x, y) = \frac{ax^2 + by^2}{xy}$, where a and b are constants. If $\frac{\partial f}{\partial x} = \frac{\partial f}{\partial y}$ at $x = 1$ and $y = 2$, then the relation between a and b is:

- Ans
- 1. $4a = b$
 - 2. $a = 4b$
 - 3. $2a = b$
 - 4. $a = 2b$

Question ID : 54592762671

Q.7 The Ministry of Environment & Forests (MoEF) guideline of 1991 has suggested:

- Ans
- 1. a double liner system with synthetic or clay liner for landfill
 - 2. a single liner system with PVC liner for landfill
 - 3. a single liner system with synthetic or clay liner for landfill
 - 4. a double liner system with PVC liner for landfill

Question ID : 54592762663

Q.8 Wastes produced by hospitals, nursing homes, clinics, research laboratories and diagnostic centres are called:

- Ans
- 1. bioinfer waste
 - 2. radioactive waste
 - 3. commingled waste
 - 4. biomedical waste

Question ID : 54592762664

Q.9 The distillation process which involves the removal of volatile organic matter from wastewater is called:

- Ans
- 1. thin film extraction
 - 2. fractionation
 - 3. thermal stripping
 - 4. steam stripping

Question ID : 54592762661

Q.10 One byte consists of ____ bits.

- Ans
- 1. 16
 - 2. 12
 - 3. 4
 - 4. 8

Question ID : 54592762659

Q.11 Let A be a real 4x4 matrix. Consider the following statements: S1: A has 4 linearly independent vectors; S2: A has 4 distinct eigenvalues; S3: A is invertible. Which of the following is true?

- Ans
- 1. S1 implies S3
 - 2. S2 implies S1
 - 3. S1 implies S2
 - 4. S3 implies S2

Question ID : 54592762670

Q.12 Which of the following is a part of the Central Processing Unit?

- Ans
- 1. Key board
 - 2. Arithmetic and logic unit
 - 3. Mouse
 - 4. Printer

Question ID : 54592762655

Q.13 Which legislative law has to be followed by health care centres to ensure that their waste is

handled and managed without causing any adverse health effects to human beings and the environment?

- Ans
- 1. Biomedical Waste (Management and Handling) Rules, 1997
 - 2. Biomedical Waste (Management and Handling) Rules, 1999
 - 3. Biomedical Waste (Management and Handling) Rules, 1996
 - 4. Biomedical Waste (Management and Handling) Rules, 1998

Question ID : 54592762665

Q.14 The process involving the complete coating or enclosure of a toxic particle or waste agglomerate with a new substance is called:

- Ans
- 1. simplification
 - 2. amplification
 - 3. macro-encapsulation
 - 4. encapsulation

Question ID : 54592762667

Q.15 A program that performs a useful task while simultaneously allowing destructive acts is a:

- Ans
- 1. Macro virus
 - 2. Trojan horse
 - 3. Virus
 - 4. Worm

Question ID : 54592762658

Q.16 Which device is required for an internet connection?

- Ans
- 1. Joystick
 - 2. Modem
 - 3. NIC card
 - 4. CD drive

Question ID : 54592762654

Q.17 Gauss-Seidel iterative method can be used for solving a set of:

- Ans
- 1. linear algebraic equations
 - 2. both linear and nonlinear algebraic equations
 - 3. both linear and nonlinear differential equations
 - 4. linear differential equations

Question ID : 54592762673

Q.18 Taylor's series expansion of $f(x) = \int_0^x e^{-\frac{x^2}{2}} dx$ around $x = 0$ has the form $f(x) = a_0 + a_1x + a_2x^2 + a_3x^3 + \dots$. The coefficient a_2 is equal to:

- Ans
- 1. e
 - 2. -0.5
 - 3. 1
 - 4. 0

Question ID : 54592762672

Q.19 Identify the INCORRECT statement with respect to wetlands.

- Ans 1. Wetlands protect water quality by assimilating water pollutants and removing sediments containing heavy metals
2. Wetlands recharge groundwater supplies
3. Wetlands prevent potentially extensive and costly floods by temporarily storing flood waters
4. Wetlands lead to soil erosion

Question ID : 54592762662

Q.20 CAD stands for:

- Ans 1. Computer Analogue Design
2. Computer Aided Design
3. Computer Algorithm for Design
4. Computer Application in Design

Question ID : 54592762656

Section : Discipline4

Q.1 Which is the standard unit for measuring carbon footprints?

- Ans 1. Carbon dioxide equivalent
2. Carboxyl equivalent
3. Carbon monoxide equivalent
4. Carbon oxide equivalent

Question ID : 54592762685

Q.2 In GIS, a matrix of cells (or pixels) organised into rows and columns (or a grid) is called:

- Ans 1. processed data
2. vector data
3. raster data
4. imaginary data

Question ID : 54592762678

Q.3 The term 'centroid' is:

- Ans 1. the point of application of the resultant of all the forces tending to cause a body to rotate about a certain axis
2. same as centre of gravity
3. the point of dissection of forces
4. the point of suspension

Question ID : 54592762692

Q.4 Remote sensing methods that provide their own source of electromagnetic radiation to illuminate the terrain is called:

- Ans 1. cohesive remote sensing
2. adhesive remote sensing
3. active remote sensing
4. passive remote sensing

Question ID : 54592762680

Q.5 The primary scientific tools to evaluate transformation and transport processes in the environment are:

- A. direct field observations
- B. laboratory scale tests and physical modelling studies
- C. mathematical modelling
- D. Passive data collection

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

Question ID : 54592762690

Q.6 World Health day is celebrated on:

- Ans
- 1. 7th August
 - 2. 8th August
 - 3. 8th April
 - 4. 7th April

Question ID : 54592762688

Q.7 Which of the following is NOT an environmental factor that affects health?

- Ans
- 1. Climate change
 - 2. Exposure to hazardous substances in the air, water and soil
 - 3. Consuming expired medicine
 - 4. Natural and technological disasters

Question ID : 54592762687

Q.8 The energy derived from a wide variety of material of plant or animal origin is called:

- Ans
- 1. passive energy
 - 2. active energy
 - 3. bioenergy
 - 4. living energy

Question ID : 54592762681

Q.9 Which is the recognised Green Building Rating System in India?

- Ans
- 1. Leadership in Energy and Environmental Development
 - 2. Leadership in Energy and Environmental Design
 - 3. Leadership in Energy and Economical Design
 - 4. Leadership in Energy and Ecological Design

Question ID : 54592762683

Q.10 EPA has classified Environmental Tobacco Smoke (ETS) as:

- Ans
- 1. class A carcinogen
 - 2. class D carcinogen
 - 3. class C carcinogen
 - 4. class B carcinogen

Q.11 When was Chandrayaan - 2, India's second lunar exploration mission launched?

- Ans
- 1. 22nd July 2019
 - 2. 18th July 2019
 - 3. 16th July 2019
 - 4. 15th July 2019

Question ID : 54592762679

Q.12 When temperature is increased beyond a certain degree in an aqueous solution of a non-ionic surfactant, the solution separates into two phases and the temperature is known as:

- Ans
- 1. breakpoint
 - 2. cloud point
 - 3. threshold temperature
 - 4. minimum temperature

Question ID : 54592762676

Q.13 Which of the following is NOT an effect of climate change?

- Ans
- 1. Afforestation
 - 2. Disappearance of species
 - 3. Rising sea levels
 - 4. Extreme weather events

Question ID : 54592762686

Q.14 Identify the unsustainable energy component from the following.

- Ans
- 1. Natural gas
 - 2. Hydroelectricity
 - 3. Land wind turbines
 - 4. Geothermal energy

Question ID : 54592762682

Q.15 The unit of moment of inertia of an area is:

- Ans
- 1. kg/m^2
 - 2. kg-m-s^2
 - 3. kg-m^2
 - 4. m^4

Question ID : 54592762693

Q.16 The Newton-Raphson iteration $x_{n+1} = \frac{1}{2} \left(x_n + \frac{R}{x_n} \right)$ can be used to compute the:

- Ans
- 1. reciprocal of R
 - 2. logarithm of R
 - 3. square of R
 - 4. square root of R

Question ID : 54592762674

Q.17 If $y = x + 1$ and $x = 3y - 7$ are two lines of regression then \bar{y} is:

- Ans
- 1. 1
 - 2. 4
 - 3. 3
 - 4. 2

Question ID : 54592762675

Q.18 _____ has published guidelines for different sectors, which outline the significant issues to be addressed in the EIA studies.

- Ans
- 1. State Pollution Control Board
 - 2. Federal Reserve Board
 - 3. Central Pollution Control Board
 - 4. Ministry of Environment and Forests

Question ID : 54592762677

Q.19 Choose the correct answer from the options:

- A. Green buildings are energy efficient
- B. Initial cost of green buildings are higher than those of traditional buildings
- C. Green buildings have poor indoor environment quality

- Ans
- 1. Only A is correct
 - 2. Only B is correct
 - 3. Both A and B are correct
 - 4. Only C is correct

Question ID : 54592762684

Q.20 The unit of force in the SI system of units is:

- Ans
- 1. Watt
 - 2. Dyne
 - 3. Newton
 - 4. Kilogram

Question ID : 54592762691

Section : Discipline5

Q.1 The indentation marks left on bricks during the process of moulding are known as:

- Ans
- 1. projections
 - 2. fillets
 - 3. frogs
 - 4. marks

Question ID : 54592762701

Q.2 In a jet of water striking at the centre of the curved vane moving with a uniform velocity in the direction of the jet, for the maximum efficiency, the vane velocity is _____ of the jet velocity.

- Ans
- 1. two - third
 - 2. one - half

- 3. one – third
- 4. three – fourth

Question ID : 54592762708

Q.3 The ratio of specific weight of a liquid to specific weight of pure water at standard temperature is called:

- Ans
- 1. density of a liquid
 - 2. surface tension of a liquid
 - 3. specific gravity of a liquid
 - 4. compressibility of a liquid

Question ID : 54592762698

Q.4 In order to determine natural features such as valleys, rivers, lakes etc., the surveying preferred is:

- Ans
- 1. location surveying
 - 2. cadastral surveying
 - 3. city surveying
 - 4. topographical surveying

Question ID : 54592762703

Q.5 In a truss structure, _____ bear tension.

- Ans
- 1. bottom chords
 - 2. bases
 - 3. joints
 - 4. top chords

Question ID : 54592762713

Q.6 The error in measured length due to incorrect holding of the chain is:

- Ans
- 1. cumulative error
 - 2. negative error
 - 3. instrumental error
 - 4. compensating error

Question ID : 54592762704

Q.7 The process in which the impeller of a centrifugal pump will get fully submerged in a liquid without any air trap inside is called _____.

- Ans
- 1. pumping
 - 2. gauging
 - 3. priming
 - 4. lifting

Question ID : 54592762710

Q.8 In a frame structure, which of the following transfers the load to columns?

- Ans
- 1. Roof
 - 2. Foundation
 - 3. Slabs

4. Beams

Question ID : 54592762712

Q.9 The variation in the volume of a liquid with the variation of pressure is called:

- Ans 1. capillarity
 2. compressibility
 3. surface tension
 4. viscosity

Question ID : 54592762699

Q.10 The ratio of linear stress to linear strain is called:

- Ans 1. modulus of rigidity
 2. modulus of elasticity
 3. Poisson's ratio
 4. bulk modulus

Question ID : 54592762695

Q.11 A Pelton wheel is a/an:

- Ans 1. tangential flow impulse turbine
 2. inward flow impulse turbine
 3. outward flow impulse turbine
 4. inward flow reaction turbine

Question ID : 54592762709

Q.12 The deformation per unit length is called:

- Ans 1. compressive stress
 2. strain
 3. shear stress
 4. tensile stress

Question ID : 54592762694

Q.13 In the neutral axis of the cross-section a beam is that axis at which the bending stress is:

- Ans 1. minimum
 2. maximum
 3. zero
 4. infinity

Question ID : 54592762705

Q.14 Gypsum is added in the manufacture of Portland cement in order to:

- Ans 1. decrease the burning temperature
 2. decrease the grinding time
 3. lengthen the setting time of cement
 4. shorten the setting time of cement

Question ID : 54592762702

Q.15 Hooke's Law holds good up to:

- Ans
- 1. yield point
 - 2. plastic limit
 - 3. breaking point
 - 4. elastic limit

Question ID : 54592762696

Q.16 The degree of static indeterminacy of a rigid - jointed plane frame having 15 members, 3 reaction components and 14 joints is:

- Ans
- 1. 3
 - 2. 6
 - 3. 2
 - 4. 8

Question ID : 54592762706

Q.17 The rocks formed due to solidification of molten mass lying below or above the earth's surface are called:

- Ans
- 1. igneous rocks
 - 2. metamorphic rocks
 - 3. sedimentary rocks
 - 4. aqueous rocks

Question ID : 54592762700

Q.18 The fixed support in the real beam becomes a ____ in the conjugate beam.

- Ans
- 1. hinged support
 - 2. fixed support
 - 3. free end
 - 4. roller support

Question ID : 54592762707

Q.19 The mass per unit volume of a liquid at standard temperature and pressure is called:

- Ans
- 1. specific volume
 - 2. specific weight
 - 3. mass density
 - 4. specific gravity

Question ID : 54592762697

Q.20 How many types of frame structures are there?

- Ans
- 1. 2
 - 2. 3
 - 3. 4
 - 4. 5

Question ID : 54592762711