



OIL AND NATURAL GAS CORPORATION LIMITED

Participant ID	
Participant Name	
Test Center Name	iON DIGITAL ZONE iDZ 2 WADI MIDC
Test Date	16/08/2022
Test Time	12:30 PM - 2:30 PM
Subject	Diploma in Civil Engineering

Section : General Aptitude and Reasoning

Q.1 The money received by the government from the sale of its asset are termed as:

- Ans
- 1. Tax Revenue
 - 2. Capital Receipts
 - 3. Revenue Receipts
 - 4. Non-tax Revenue

Question ID : 1841224534

Status : Answered

Chosen Option : 2

Q.2 In a certain code language,

A + B means 'A is the wife of B'

A – B means 'A is the mother of B'

A x B means 'A is the son of B'

A & B means 'A is the daughter of B'

Based on the above, how is T related to R if 'G – T – L & N x P + R'?

- Ans
- 1. Daughter
 - 2. Mother
 - 3. Sister
 - 4. Daughter-in-law

Question ID : 1841224526

Status : Answered

Chosen Option : 4

Q.3 Select the most appropriate option that can substitute the underlined segment in the given sentence.
It is really very comforting to know that Mihir is able to cope with the difficult living conditions.

- Ans**
- 1. Adapt to
 - 2. Adept to
 - 3. Accept with
 - 4. Adopt to

Question ID : 1841224538
Status : Answered
Chosen Option : 1

Q.4 Solve: $42 - 4 \times [2 + 3 \times \{9 - 2(4 - 6) \times 3\} \div 7]$

- Ans**
- 1. -2
 - 2. 11
 - 3. -9
 - 4. 5

Question ID : 1841224531
Status : Answered
Chosen Option : 1

Q.5 In a class of 53 students Kriyansh's rank is 28th from the top. What is the rank of Kriyansh from the bottom?

- Ans**
- 1. 27
 - 2. 24
 - 3. 25
 - 4. 26

Question ID : 1841224523
Status : Answered
Chosen Option : 4

Q.6 The Ganga plain extends between which of the following rivers?

- Ans**
- 1. Yamuna and Koshi
 - 2. Ghaggar and Koshi
 - 3. Brahmaputra and Narmada
 - 4. Ghaggar and Teesta

Question ID : 1841224535
Status : Answered
Chosen Option : 1

Q.7 खालीलपैकी कोण राज्यसभेचा पदसिद्ध अध्यक्ष असतात?

- Ans
- 1. उपराष्ट्रपती
 - 2. राष्ट्रपती
 - 3. लोकायुक्त
 - 4. मुख्य न्यायाधीश

Question ID : 1841224537
Status : Answered
Chosen Option : 1

Q.8 Which of the following statements is incorrect?

- Ans
- 1. Gracilaria is a green algae.
 - 2. Polysiphonia is as red algae.
 - 3. Chlamydomonas is a green algae.
 - 4. Ectocarpus is as brown algae.

Question ID : 1841224536
Status : Answered
Chosen Option : 4

Q.9 Select the most appropriate option to fill in the blank.

If Rohit had served his people genuinely, he _____ in this term.

- Ans
- 1. would have been elected
 - 2. would have elected
 - 3. will be elected
 - 4. will elect

Question ID : 1841224540
Status : Answered
Chosen Option : 3

Q.10 A man cycles from his house to office at a speed of 12 kmph and reaches his office in 54 minutes. As he is in a hurry he cycles back home in the same route, in 36 minutes. Find the average speed.

- Ans
- 1. 16 kmph
 - 2. 15 kmph
 - 3. 17.2 kmph
 - 4. 14.4 kmph

Question ID : 1841224529
Status : Answered
Chosen Option : 3

Q.11 In a certain code language, 'CAMEL' is written as CEMNG, 'TIGER' is written as KVG TG, how will 'SNAKE' be written in that language?

- Ans
- 1. OUAHM
 - 2. PUAGM
 - 3. PVBGN
 - 4. PVCGM

Question ID : 1841224525
Status : Answered
Chosen Option : 2

Q.12 Find the value of:

$$\left[\frac{2}{5}\right]^4 \div \sqrt[3]{\frac{64}{125}}$$

- Ans
- 1. $\frac{4}{125}$
 - 2. $\frac{8}{25}$
 - 3. $\frac{8}{125}$
 - 4. $\frac{4}{25}$

Question ID : 1841224528
Status : Answered
Chosen Option : 1

Q.13 The surface area of a sphere is same as the surface area of a cylinder of radius 5 cm and height 9 cm. Find the volume of the sphere.

- Ans
- 1. $\frac{530\sqrt{14}}{3}$
 - 2. $\frac{380\sqrt{22}}{3}$
 - 3. $\frac{460\sqrt{8}}{3}$
 - 4. $\frac{440\sqrt{35}}{3}$

Question ID : 1841224530
Status : Answered
Chosen Option : 2

Q.14 Three statements are given followed by three conclusions I, II and III. You have to consider the three statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusion(s) logically follows/follow from the Statements:

Statements:

Some Lions are Animals.
All Animals are Mammals.

Some Mammals are Herbivores.

Conclusions:

I. Some Lions are Herbivores.
II. Some Animals are Herbivores.
III. Some Mammals are Lions.

- Ans**
- 1. Only conclusion III follows.
 - 2. Only conclusions I and III follow.
 - 3. All the conclusions I, II and III follow.
 - 4. Only conclusions I and II follow.

Question ID : 1841224524

Status : Answered

Chosen Option : 1

Q.15 In which of the following year Lord Curzon Partitioned Bengal?

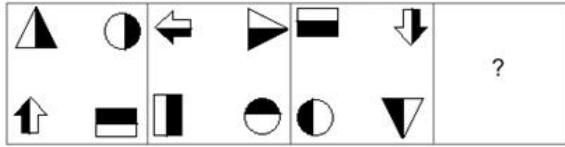
- Ans**
- 1. 1903
 - 2. 1901
 - 3. 1911
 - 4. 1905

Question ID : 1841224533

Status : Answered

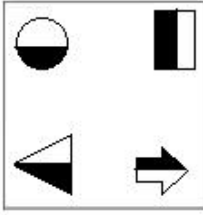
Chosen Option : 3

Q.16 Select the figure that will replace the question mark (?) in the following figure series.

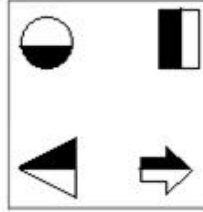


Ans

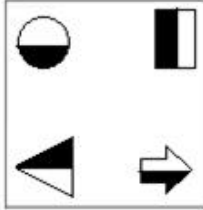
✗ 1.



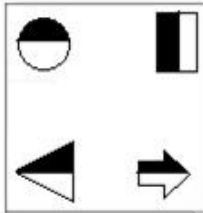
✓ 2.



✗ 3.



✗ 4.



Question ID : 1841224527

Status : Answered

Chosen Option : 2

Q.17 एक बोट 1 kmph वेगाने अर्ध्या तासात प्रवाहाच्या विरुद्ध दिशेने प्रवास करते आणि प्रवाहाच्या दिशेने 3 km चे अंतर 30 मिनिटांत पार करते. तर, स्थिर पाण्यातून 8 km चा प्रवास करण्यासाठी त्या बोटिला किती वेळ लागेल?

Ans

✗ 1. 2 तास 40 मिनिटे

✗ 2. 2 तास 25 मिनिटे

✓ 3. 2 तास

✗ 4. 2 तास 15 मिनिटे

Question ID : 1841224532

Status : Answered

Chosen Option : 4

Q.18 Select the most appropriate option to fill in the blanks.

_____ you _____ up the entrance test form for Delhi University?

- Ans
- 1. When, fill
 - 2. May, fill
 - 3. Will, fill
 - 4. Will, filled

Question ID : 1841224539

Status : Answered

Chosen Option : 3

Comprehension:

Read the passage and answer the questions that follow:

The water cycle has a dramatic influence on Earth's climate and ecosystems.

Climate is all the weather conditions of an area, evaluated over a period of time. Two weather conditions that contribute to climate include humidity and temperature. These weather conditions are influenced by the water cycle.

A region's temperature also relies on the water cycle. Through the water cycle, heat is exchanged and temperatures fluctuate.

As glaciers slowly expand across a landscape, they can carve away entire valleys, create mountain peaks, and leave behind rubble as big as boulders. Yosemite Valley, part of Yosemite National Park in the U.S. state of California, is a glacial valley. The famous Matterhorn, a peak on the Alps between Switzerland and Italy, was carved as glaciers collided and squeezed up the earth between them. Canada's "Big Rock" is one of the world's largest "glacial erratics," boulders left behind as a glacier advances or retreats.

Glacial melt can also create landforms. The Great Lakes, for example, are part of the landscape of the Midwest of the United States and Canada. The Great Lakes were created as an enormous ice sheet melted and retreated, leaving liquid pools.

SubQuestion No : 19

Q.19 What type of passage is this?

- Ans
- 1. Persuasive
 - 2. Informative
 - 3. Historical
 - 4. Narrative

Question ID : 1841224542

Status : Answered

Chosen Option : 2

Comprehension:

Read the passage and answer the questions that follow:

The water cycle has a dramatic influence on Earth's climate and ecosystems.

Climate is all the weather conditions of an area, evaluated over a period of time. Two weather conditions that contribute to climate include humidity and temperature. These weather conditions are influenced by the water cycle.

A region's temperature also relies on the water cycle. Through the water cycle, heat is exchanged and temperatures fluctuate.

As glaciers slowly expand across a landscape, they can carve away entire valleys, create mountain peaks, and leave behind rubble as big as boulders. Yosemite Valley, part of Yosemite National Park in the U.S. state of California, is a glacial valley. The famous Matterhorn, a peak on the Alps between Switzerland and Italy, was carved as glaciers collided and squeezed up the earth between them. Canada's "Big Rock" is one of the world's largest "glacial erratics," boulders left behind as a glacier advances or retreats.

Glacial melt can also create landforms. The Great Lakes, for example, are part of the landscape of the Midwest of the United States and Canada. The Great Lakes were created as an enormous ice sheet melted and retreated, leaving liquid pools.

SubQuestion No : 20

Q.20 Which of the following statements is NOT true?

- Ans
- 1. Earth's physical features are created with the help of glacial melts.
 - 2. Matterhorn was not carved as glaciers collided and squeezed up the earth between them.
 - 3. Water cycle relies abundantly on the region's temperature.
 - 4. The Midwest of the United States and Canada have the Great Lakes as part of the landscape.

Question ID : 1841224543

Status : Answered

Chosen Option : 2

Q.1 As per IRC specifications, what is the minimum width recommended for kerbed urban road? So that allowance for stalled vehicles is made.

- Ans**
- 1. 4.5 m
 - 2. 7.5 m
 - 3. 5.5 m
 - 4. 3.5 m

Question ID : **1841224582**
Status : **Answered**
Chosen Option : **2**

Q.2 Consider below statements with respect to runoff characteristics of streams and identify correct answer.

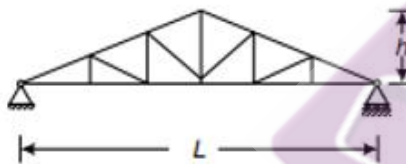
Statement A : The flow characteristics of a stream depends on some of the catchment characteristics such as type of soil, land use/cover, drainage density etc.,

Statement B : The flow characteristics of a stream is independent of rainfall characteristics.

- Ans**
- 1. Both statements are correct
 - 2. Both statements are incorrect
 - 3. Statement B is correct and A is incorrect
 - 4. Statement A is correct and B is incorrect

Question ID : **1841224579**
Status : **Answered**
Chosen Option : **4**

Q.3 Identify the type of truss geometry shown in below figure.



- Ans**
- 1. Fan truss
 - 2. Pratt truss
 - 3. Fink truss
 - 4. Howe truss

Question ID : **1841224576**
Status : **Answered**
Chosen Option : **2**

Q.4 What is the recommended value of camber by IRC for water bound macadam and gravel pavements at areas of heavy rainfall?

- Ans**
- 1. 4.5%
 - 2. 3.0%
 - 3. 1.5%
 - 4. 0.5%

Question ID : 1841224583
Status : Answered
Chosen Option : 2

Q.5 Which of the following type of pavement maintenance work comes under periodic maintenance operation?

- Ans**
- 1. shoulder maintenance
 - 2. repair of cross ruts
 - 3. side drain maintenance
 - 4. upkeep of carriageway

Question ID : 1841224618
Status : Answered
Chosen Option : 2

Q.6 Which of the following is not a component of green building design?

- Ans**
- 1. Use of renewable energy resources
 - 2. Construction of Earthbag homes
 - 3. Use of ceramic materials
 - 4. Installation of greywater and rainwater catchment

Question ID : 1841224619
Status : Answered
Chosen Option : 2

Q.7 Consider below statements with respect to requirements for creating a network diagram and identify correct answer.

Statement A : Informations like the start and end points of the project must be available

Statement B : All project activities and dependencies must be identified

- Ans**
- 1. Both statements are correct
 - 2. Statement A is correct and B is incorrect
 - 3. Both statements are incorrect
 - 4. Statement B is correct and A is incorrect

Question ID : 1841224590
Status : Answered
Chosen Option : 1

Q.8 A circular rod with cross sectional area 314.16 mm^2 and section modulus 785.4 mm^3 carries a pull of magnitude 50 kN along a line which is parallel to the centroidal axis with an eccentricity 0.5 mm . Calculate the maximum stress caused.

- Ans**
- 1. 75.321 N/mm^2
 - 2. 30.655 N/mm^2
 - 3. 135.642 N/mm^2
 - 4. 190.985 N/mm^2

Question ID : **1841224574**
Status : **Answered**
Chosen Option : **4**

Q.9 In staircases an additional finish or moulding provided to the nosing or tread to beautify the elevation of the step and to provide strength to the nosing is called as _____.

- Ans**
- 1. Slept
 - 2. Baluster
 - 3. Newel post
 - 4. Scotia

Question ID : **1841224562**
Status : **Answered**
Chosen Option : **4**

Q.10 The regulatory sign shown in below figure is meant to inform the road users that _____.



- Ans**
- 1. Overtaking prohibited
 - 2. Left turn prohibited
 - 3. No stopping or standing
 - 4. No parking

Question ID : **1841224602**
Status : **Answered**
Chosen Option : **1**

Q.11 Calculate the crippling load of a column whose effective length is 3 m, take modulus of elasticity as 'E' kN/m² and moment of inertia as 'I' m⁴. Consider that both ends of column are fixed.

- Ans
- 1. $0.67 \pi^2 EI$ kN
 - 2. $0.33 \pi^2 EI$ kN
 - 3. $0.11 \pi^2 EI$ kN
 - 4. $1.5 \pi^2 EI$ kN

Question ID : 1841224558
Status : Answered
Chosen Option : 3

Q.12 In the design of steel members subjected to tension forces alone are not required to check for _____.

- Ans
- 1. Block shear
 - 2. Net section rupture
 - 3. Lateral torsional buckling
 - 4. Gross section yielding

Question ID : 1841224595
Status : Answered
Chosen Option : 3

Q.13 As per IS 962:1989, the below mentioned symbol depicts _____.



- Ans
- 1. Vertical centre hung window
 - 2. Top hung window
 - 3. Bottom hung window
 - 4. Horizontal centre hung window

Question ID : 1841224577
Status : Answered
Chosen Option : 1

Q.14 Consider below statements with respect to spot speed studies and identify correct answer.

Statement A: Spot speed study may be useful in accident studies

Statement B: Spot speed data may be presented in terms of average speed of vehicles and cumulative speed of vehicles

- Ans
- 1. Statement A is correct and B is incorrect
 - 2. Both statements are correct
 - 3. Both statements are incorrect
 - 4. Statement B is correct and A is incorrect

Question ID : 1841224601
Status : Answered
Chosen Option : 4

Q.15 Bulk unit weight a soil sample is found to be 21 kN/m^3 , calculate its dry unit weight if the water content present in it is 20%.

- Ans
- 1. 17.50 kN/m^3
 - 2. 19.46 kN/m^3
 - 3. 21.50 kN/m^3
 - 4. 22.00 kN/m^3

Question ID : 1841224567
Status : Answered
Chosen Option : 1

Q.16 Consider below statements with respect to precast structural building components and identify correct answer.

Statement A : Precast concrete partition walls can be used as an alternative to brick work in building construction.

Statement B : Foundations cannot be constructed using precast members as they are not stable once they are placed on site.

- Ans
- 1. Both statements are correct
 - 2. Statement B is correct and A is incorrect
 - 3. Both statements are incorrect
 - 4. Statement A is correct and B is incorrect

Question ID : 1841224587
Status : Answered
Chosen Option : 4

Q.17 Calculate the young's modulus of elasticity of a material, whose bulk modulus is 40 GPa and poisson's ratio 0.15.

- Ans
- 1. 84 GPa
 - 2. 96 GPa
 - 3. 120 GPa
 - 4. 72 GPa

Question ID : 1841224555
Status : Answered
Chosen Option : 1

Q.18 Consider below statements with respect to seasoning of timber and identify correct answer.

Statement A : Seasoning of timber increases the strength, durability and workability of timber.

Statement B : Seasoning of timber makes it difficult to paint the surface of timber.

- Ans
- 1. Statement B is correct and A is incorrect
 - 2. Both statements are incorrect
 - 3. Statement A is correct and B is incorrect
 - 4. Both statements are correct

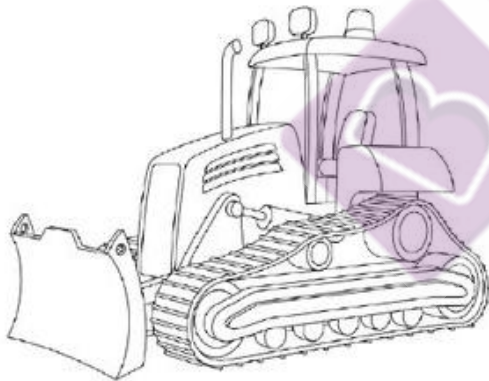
Question ID : 1841224545
Status : Answered
Chosen Option : 4

Q.19 Sheep foot rollers are suitable to compact _____.

- Ans
- 1. Clayey soils
 - 2. Aggregate course
 - 3. Wearing coat
 - 4. Sandy soils

Question ID : 1841224612
Status : Answered
Chosen Option : 1

Q.20 Identify the Earth-moving heavy equipment shown in below figure.



- Ans
- 1. Backhoe Loader
 - 2. Excavator
 - 3. Bulldozer
 - 4. Scraper

Question ID : 1841224611
Status : Answered
Chosen Option : 3

Q.21 Alluminium is not suitable for _____.

- Ans
- 1. Window frames
 - 2. Railings of shops
 - 3. Corrugated sheets
 - 4. Reinforcing concrete structures

Question ID : 1841224547
Status : Answered
Chosen Option : 4

Q.22 In a elevator shaft, the depression below the surface of the lowest landing that allows the elevator floor to be level with the floor of the lowest landing is termed as _____.

- Ans
- 1. Elevator pit
 - 2. Overhead
 - 3. LMR
 - 4. Lift car

Question ID : 1841224623
Status : Answered
Chosen Option : 1

Q.23 The survey line is measured by using a 30 m chain and was found to be 450 m. It was found that the chain is 30 cm too long. Calculate the true length of the measured survey line.

- Ans
- 1. 450.00 m
 - 2. 445.54 m
 - 3. 454.50 m
 - 4. 460 m

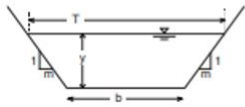
Question ID : 1841224550
Status : Answered
Chosen Option : 3

Q.24 The Phase III of 'Pradhan Mantri Gram Sadak Yojana' (PMGSY) scheme was approved by the Cabinet during _____.

- Ans
- 1. May 2013
 - 2. July 2019
 - 3. Aug 2017
 - 4. December 2000

Question ID : 1841224594
Status : Answered
Chosen Option : 2

Q.25 Which of the following expression is correct to calculate wetted perimeter of a trapezoidal open channel section shown in below figure?



- Ans
- ✓ 1. $b + 2y\sqrt{1 + m^2}$
 - ✗ 2. $y\sqrt{1 + m^2}$
 - ✗ 3. $2y\sqrt{1 + m^2}$
 - ✗ 4. $b + y\sqrt{1 - m^2}$

Question ID : 1841224573
Status : Answered
Chosen Option : 1

Q.26 Find the delta for a crop, if the duty for a base period of 100 days is 1728 hectares/cumec.

- Ans
- ✗ 1. 0.9 m
 - ✗ 2. 0.4 m
 - ✗ 3. 0.75 m
 - ✓ 4. 0.5 m

Question ID : 1841224580
Status : Answered
Chosen Option : 4

Q.27 A beam with a triangular cross section is subjected to a Shear force of 30 kN, calculate the value of average shear stress, if its base width of the section is 300 mm and height 100 mm.

- Ans
- ✗ 1. 1.0 N/mm^2
 - ✗ 2. 2.5 N/mm^2
 - ✓ 3. 2.0 N/mm^2
 - ✗ 4. 1.5 N/mm^2

Question ID : 1841224557
Status : Answered
Chosen Option : 3

Q.28 Which of the following flexible pavement failure occurs due to relative movement of pavement layer materials?

- Ans
- ✗ 1. Shrinkage cracks
 - ✗ 2. Warping cracks
 - ✓ 3. Alligator cracking
 - ✗ 4. Frost heaving

Question ID : 1841224617
Status : Answered
Chosen Option : 3

Q.29 It is found that the weight of a liquid is 10N which measures 0.4 litre, calculate its specific weight?

- Ans
- 1. 10000 N/m³
 - 2. 30000 N/m³
 - 3. 25000 N/m³
 - 4. 20000 N/m³

Question ID : 1841224571
Status : Answered
Chosen Option : 3

Q.30 Which of the following is not a non renewable energy resource?

- Ans
- 1. Energy from Natural Gas
 - 2. Energy from Coal
 - 3. Nuclear Energy
 - 4. Biomass Energy

Question ID : 1841224620
Status : Answered
Chosen Option : 4

Q.31 Which of the following type of concrete has better flowability?

- Ans
- 1. Steel fibre reinforced concrete
 - 2. Self compacting concrete
 - 3. Geopolymer concrete
 - 4. Roller compacted concrete

Question ID : 1841224609
Status : Answered
Chosen Option : 2

Q.32 If an aggregate fraction passing through IS sieve size 20 mm and retained on 16 mm is said to be flaky, the least dimension of tested sample of aggregate shall be less than _____.

- Ans
- 1. 18 mm
 - 2. 10.8 mm
 - 3. 15 mm
 - 4. 12.5 mm

Question ID : 1841224563
Status : Answered
Chosen Option : 2

Q.33 Consider below statements with respect to High-Density Poly Ethylene (HDPE) plastic and identify correct answer.

Statement A : Melting point temperature of HDPE is higher than Low density polyethylene (LDPE) plastic.

Statement B : HDPE plastic can be used for making food and beverage containers and cutting boards.

- Ans
- 1. Statement A is correct and B is incorrect
 - 2. Both statements are correct
 - 3. Both statements are incorrect
 - 4. Statement B is correct and A is incorrect

Question ID : 1841224608
Status : Answered
Chosen Option : 2

Q.34 Which of the following solid waste is categorized as hazardous solid waste?

- Ans
- 1. Solid wastes from sugar mills
 - 2. Solid waste from fruit processing
 - 3. Leather
 - 4. Blast furnace slag

Question ID : 1841224604
Status : Answered
Chosen Option : 4

Q.35 In a levelling work, the following consecutive readings were taken at different locations using a 5 m levelling staff on a continuously sloping ground at a common interval of 5 m.

0.300 m; 1.230 m; 1.565 m; 2.350 m; 3.120 m; 4.955 m; 0.255 m; 2.130 m; 3.565 m; 4.500 m.

Calculate the reduced level of 8th station if the RL of 1st station is 900 m. Consider that there is no reason for change the instrument station except the limited height of levelling staff.

- Ans
- 1. 900.045 m
 - 2. 892.035 m
 - 3. 895.150 m
 - 4. 898.355 m

Question ID : 1841224552
Status : Answered
Chosen Option : 2

Q.36 The percentage of voids is found to be 40% in an angularity test conducted on coarse aggregates sample. Calculate its angularity number?

- Ans
- 1. 6
 - 2. 11
 - 3. 4
 - 4. 7

Question ID : 1841224584
Status : Answered
Chosen Option : 4

Q.37 Which of the following property of Bitumen is determined using 'Ring and ball apparatus'?

- Ans
- 1. Ductility of Bitumen
 - 2. Flash point of Bitumen
 - 3. Specific gravity of Bitumen
 - 4. Softening point of Bitumen

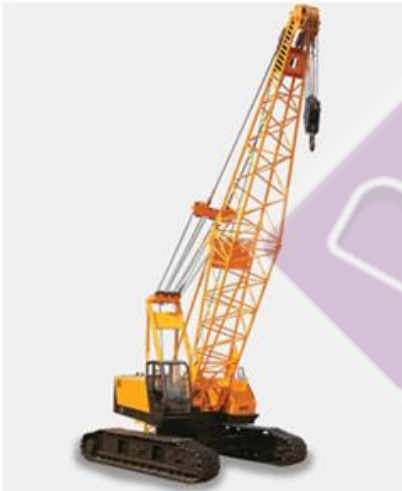
Question ID : 1841224544
Status : Answered
Chosen Option : 4

Q.38 As per the recent implementation what is the rate of GST on steel should be added in a detailed estimate?

- Ans
- 1. 5%
 - 2. 12%
 - 3. 18%
 - 4. 28%

Question ID : 1841224599
Status : Answered
Chosen Option : 3

Q.39 Identify the hoisting and conveying equipment shown in below figure.



- Ans
- 1. Winch
 - 2. Crawler crane
 - 3. Tower crane
 - 4. Truck mounted crane

Question ID : 1841224610
Status : Answered
Chosen Option : 2

Q.40 As per IRC 37:2018, An average rut depth of _____ measured along the wheel paths, is considered as critical or failure rutting condition.

- Ans
- 1. 5 mm or more
 - 2. 15 mm or more
 - 3. 20 mm or more
 - 4. 10 mm or more

Question ID : 1841224614
Status : Answered
Chosen Option : 2

Q.41 Which of the following toxic substance releases due to improper handling of E-waste i.e mechanical breaking of cathode ray tube?

- Ans
- 1. Mercury
 - 2. Chromium
 - 3. Beryllium
 - 4. Lead

Question ID : 1841224606
Status : Answered
Chosen Option : 4

Q.42 According to national building code of India part 4:2016, Industrial building are classified as _____ buildings.

- Ans
- 1. Group J
 - 2. Group G
 - 3. Group C
 - 4. Group A

Question ID : 1841224559
Status : Answered
Chosen Option : 2

Q.43 What is the dimension (width x height) of a A3 size paper?

- Ans
- 1. 297 mm X 420 mm
 - 2. 148 mm X 210 mm
 - 3. 52 mm X 74 mm
 - 4. 841 mm X 1189 mm

Question ID : 1841224578
Status : Answered
Chosen Option : 1

Q.44 Consider below statements with respect to standards set for lap length and development length in RCC structures as per IS 456:2000 specifications and identify correct answer.

Statement A : Lap splices shall not be used for bars with diameter larger than 36 mm.

Statement B : Lap length in compression shall be always greater than development length in compression.

- Ans**
- 1. Both statements are correct
 - 2. Statement A is correct and B is incorrect
 - 3. Statement B is correct and A is incorrect
 - 4. Both statements are incorrect

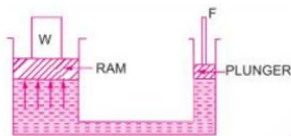
Question ID : 1841224597
Status : Answered
Chosen Option : 1

Q.45 Which of the following type of cement consists greater quantity of tricalcium silicate to perform its intended application?

- Ans**
- 1. Rapid Hardening Cement
 - 2. Blast Furnace slag Cement
 - 3. Ordinary Portland Cement
 - 4. Portland Pozzolana Cement

Question ID : 1841224565
Status : Answered
Chosen Option : 1

Q.46 A hydraulic press has a ram of cross section area 30×30 cm and a plunger of cross section area 4×4 cm, Find the weight lifted by the hydraulic press when the force(F) applied at the plunger is 400N.



- Ans**
- 1. 14500 N
 - 2. 22500 N
 - 3. 26500 N
 - 4. 18500 N

Question ID : 1841224572
Status : Answered
Chosen Option : 2

Q.47 Consider below statements with respect to types of surveying and their applications and identify correct answer.

Statement A : The line joining between any two stations is considered to be straight in Geodetic surveying.

Statement B : The Curvature of the earth is taken into account in Plane surveying.

- Ans
- 1. Statement A is correct and B is incorrect
 - 2. Statement B is correct and A is incorrect
 - 3. Both statements are correct
 - 4. Both statements are incorrect

Question ID : 1841224549
Status : Answered
Chosen Option : 4

Q.48 According to IS:6403-1981, what is the value of shape factor (S_c) for square footing?

- Ans
- 1. 0.6
 - 2. 1.3
 - 3. 1.9
 - 4. 0.8

Question ID : 1841224569
Status : Answered
Chosen Option : 2

Q.49 As per IS 5758:1984, unless otherwise specified precast concrete straight kerbs shall be manufactured to a uniform length of _____.

- Ans
- 1. 0.5 m
 - 2. 1 m
 - 3. 2.0 m
 - 4. 1.5 m

Question ID : 1841224586
Status : Answered
Chosen Option : 1

Q.50 To determine the initial and final setting time of cement, the quantity of water used as per IS standards in terms of standard consistency(P) is _____.

- Ans
- 1. 0.67 P
 - 2. 0.85 P
 - 3. 0.95 P
 - 4. 0.78 P

Question ID : 1841224564
Status : Answered
Chosen Option : 4

Q.51 Which of the following Indian standard code provides guidelines for the design of plain jointed rigid pavements for Highways?

- Ans**
- 1. IRC:58-2015
 - 2. IRC:32-2015
 - 3. IRC:44-2015
 - 4. IRC:76-2015

Question ID : 1841224615
Status : Answered
Chosen Option : 1

Q.52 How many different areas the LEED® rating system concentrate on?

- Ans**
- 1. 7
 - 2. 9
 - 3. 3
 - 4. 5

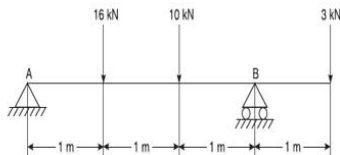
Question ID : 1841224622
Status : Answered
Chosen Option : 1

Q.53 Which of the following civil structure prepared from pre-assembled rectangular cages made of double twisted steel woven wire mesh filled with rocks/ boulders?

- Ans**
- 1. Gabion structure
 - 2. Gaint structure
 - 3. Earthen bunds
 - 4. Cantilever retaining wall

Question ID : 1841224592
Status : Answered
Chosen Option : 1

Q.54 A beam is subjected to 3 point loads as shown in below figure, calculate the shear force developed between the point loads 16 kN and 10 kN.



- Ans**
- 1. - 6 kN
 - 2. 16 kN
 - 3. 13 kN
 - 4. - 3 kN

Question ID : 1841224556
Status : Answered
Chosen Option : 4

Q.55 Consider below statements with respect to gradients used in railways and identify correct answer.

Statement A : Pusher gradient is flatter than ruling gradient and they are provided to reduce the length of railway line so that the overall cost.

Statement B : Momentum gradient is flatter than ruling gradient and they are provided in valley portion where a falling gradient is followed by a rising gradient.

- Ans
- 1. Both statements are correct
 - 2. Both statements are incorrect
 - 3. Statement A is correct and B is incorrect
 - 4. Statement B is correct and A is incorrect

Question ID : 1841224585
Status : Answered
Chosen Option : 1

Q.56 As per IS 1200, excavation exceeding 1.5 m in width as well as _____ m² on plan but not exceeding _____ mm in depth respectively, shall be described as surface excavation?

- Ans
- 1. 8, 900
 - 2. 7, 450
 - 3. 10, 300
 - 4. 5, 500

Question ID : 1841224598
Status : Answered
Chosen Option : 3

Q.57 Which of the following rock is classified as Metamorphic rock?

- Ans
- 1. Shale
 - 2. Marble
 - 3. Granite
 - 4. Dolomite

Question ID : 1841224566
Status : Answered
Chosen Option : 2

Q.58 Identify the incorrect statement with respect to manufacture of cement by both wet and dry process.

- Ans
- 1. Raw meal preheater is used in the manufacture of cement by dry process
 - 2. Carbon dioxide liberation in the manufacture of cement by dry process is greater than than by wet process
 - 3. Gypsum is added while grinding clinker to avoid flash set of cement
 - 4. Clinker formation takes place in rotary kiln when temperature reaches 1450 °C

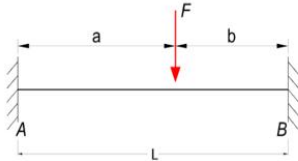
Question ID : 1841224546
Status : Answered
Chosen Option : 2

Q.59 As per IRC specifications, the maximum width of vehicle shall be _____.

- Ans
- 1. 2.95 m
 - 2. 1.50 m
 - 3. 2.44 m
 - 4. 2.00 m

Question ID : 1841224600
Status : Answered
Chosen Option : 3

Q.60 Calculate the fixed end moment at A for the beam shown in below figure. Consider F as 10 kN, a as 3m and b as 2m.



- Ans
- 1. - 1.2 kN-m
 - 2. - 4.8 kN-m
 - 3. - 2.4 kN-m
 - 4. - 6.4 kN-m

Question ID : 1841224575
Status : Answered
Chosen Option : 2

Q.61 Consider below statements with respect to flexible pavements and identify correct answer.

Statement A : The flexible pavement layers transmit the vertical or compressive stresses to the lower layers by grain to grain transfer through the points of contact in the granular structure.

Statement B : Flexible pavements possess high or considerable flexural strength and are flexible in their structural action under loads.

- Ans
- 1. Both statements are incorrect
 - 2. Statement B is correct and A is incorrect
 - 3. Both statements are correct
 - 4. Statement A is correct and B is incorrect

Question ID : 1841224613
Status : Answered
Chosen Option : 4

Q.62 Consider below statements with respect to artificial construction materials used in construction and identify correct answer.

Statement A : The transparent glass can be made opaque by grinding the surface of glass using emery.

Statement B : Bulletproof glass is produced by placing plastic and glass in several alternate layers and pressing them.

- Ans**
- 1. Statement B is correct and A is incorrect
 - 2. Both statements are correct
 - 3. Statement A is correct and B is incorrect
 - 4. Both statements are incorrect

Question ID : 1841224548
Status : Answered
Chosen Option : 2

Q.63 The amount of time that a task can be delayed without impacting the subsequent task is termed as _____.

- Ans**
- 1. Free float
 - 2. Partially float
 - 3. Total float
 - 4. Critical time

Question ID : 1841224591
Status : Answered
Chosen Option : 1

Q.64 A level instrument is setup and back sight 1.565 m is taken on the bench mark whose Reduced Level (RL) is 1000 m. To locate a contour line of RL 998.50 m, the staff-man is to be directed to occupy the position on the ground, where the staff reading is _____.

- Ans**
- 1. 3.950 m
 - 2. 2.255 m
 - 3. 2.950 m
 - 4. 3.065 m

Question ID : 1841224553
Status : Answered
Chosen Option : 4

Q.65 Which of the following construction materials is considered as green building material?

- Ans**
- 1. Plastic
 - 2. Ordinary portland cement
 - 3. Rice husk ash concrete
 - 4. Glass

Question ID : 1841224621
Status : Answered
Chosen Option : 3

Q.66 The natural water content, liquid limit, plastic limit of a clay sample are 22%, 44%, 19% respectively, calculate its consistency index.

- Ans
- 1. 0.74
 - 2. 0.88
 - 3. 0.95
 - 4. 0.69

Question ID : 1841224568
Status : Answered
Chosen Option : 2

Q.67 Which of the following is correct expression to calculate the section modulus of a rectangular geometry whose width is 'b' and depth 'd'?

Consider that the axis of reference is parallel to width b and passing through centroid.

- Ans
- 1. $\frac{bd^2}{12}$
 - 2. $\frac{bd^2}{6}$
 - 3. $\frac{bd^2}{9}$
 - 4. $\frac{bd^2}{3}$

Question ID : 1841224554
Status : Answered
Chosen Option : 2

Q.68 Which of the following is not a major objective of adding steel fibres in making concrete?

- Ans
- 1. To enhance fatigue strength of concrete
 - 2. To improve impact resistance of concrete
 - 3. To enhance compressive strength of concrete
 - 4. To enhance flexural strength of concrete

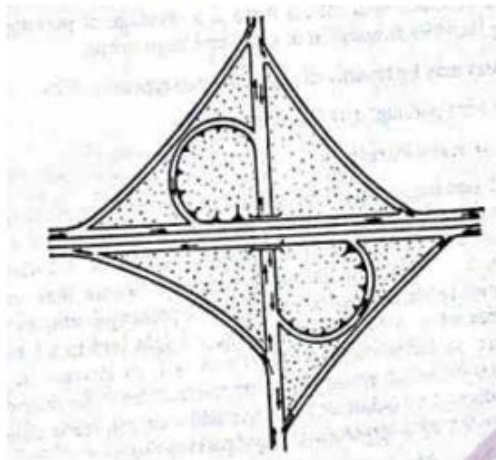
Question ID : 1841224607
Status : Answered
Chosen Option : 3

Q.69 Which of the following personnel is responsible for planning, implementing and overseeing the construction activities at site to meet the requirements of ISO 9001 policy?

- Ans
- 1. Plant and machinery Incharge
 - 2. Supervisor
 - 3. Quality assurance and quality control incharge
 - 4. Execution incharge

Question ID : 1841224589
Status : Answered
Chosen Option : 4

Q.70 Identify the type of interchange shown in below figure.



- Ans
- 1. Rotary interchange
 - 2. Partial clover leaf interchange
 - 3. Diamond interchange
 - 4. Trumpet interchange

Question ID : 1841224603
Status : Answered
Chosen Option : 2

Q.71 As per IS 10500-2012, the acceptable limit of calcium content in drinking water is _____mg/l.

- Ans
- 1. 45
 - 2. 65
 - 3. 75
 - 4. 120

Question ID : 1841224593
Status : Answered
Chosen Option : 3

Q.72 Which of the following component of a building, built on top of the soil at ground level?

- Ans
- 1. Staircase
 - 2. Parapet wall
 - 3. Grade slab
 - 4. Roof beam

Question ID : 1841224560

Status : Answered

Chosen Option : 3

Q.73 As per IS 456:2000, minimum shear reinforcement in the form of stirrups in beams shall not be less than _____.
Where, b = breadth of beam, s_v = stirrups spacing along the length of member, and f_y = characteristic strength of the stirrup reinforcement in N/mm^2 .

- Ans
- 1. $\frac{0.9bf_y}{s_v}$
 - 2. $\frac{0.4bs_v}{0.87f_y}$
 - 3. $\frac{0.9s_v}{0.85bf_y}$
 - 4. $\frac{0.5bf_y}{0.9s_v}$

Question ID : 1841224596

Status : Answered

Chosen Option : 2

Q.74 In a compass surveying the direction of a line OP is found to be $273^\circ 30'$ measured in whole circle bearing system, the direction of same line in quadrantal bearing system is _____.

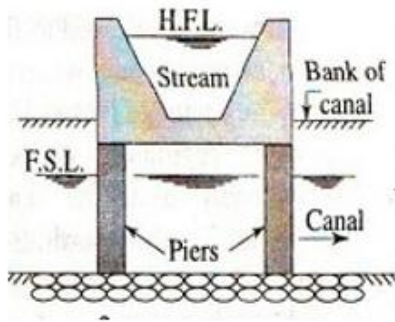
- Ans
- 1. N $273^\circ 30'$ W
 - 2. N $93^\circ 30'$ E
 - 3. N $86^\circ 30'$ W
 - 4. S $182^\circ 30'$ W

Question ID : 1841224551

Status : Answered

Chosen Option : 3

Q.75 Identify the type of cross drainage work shown in below figure.



- Ans
- 1. Aqueduct
 - 2. Super Passage
 - 3. Level Crossing
 - 4. Siphon Aqueduct

Question ID : 1841224581
Status : Answered
Chosen Option : 2

Q.76 Consider below statements with respect to Bernoulli's theorem and identify correct answer.

Statement A : According to Bernoulli's theorem, the sum of pressure energy, kinetic energy, and potential energy per unit mass of a compressible and a viscous fluid in a streamlined flow remains a constant.

Statement B : Bernoulli's equation is valid for ideal fluids, those that are incompressible, irrotational, inviscid, and subjected to conservative forces.

- Ans
- 1. Statement B is correct and A is incorrect
 - 2. Both statements are correct
 - 3. Statement A is correct and B is incorrect
 - 4. Both statements are incorrect

Question ID : 1841224570
Status : Answered
Chosen Option : 1

Q.77 According to Indian rules notified for the disposal of biomedical wastes, the wastes like catheters, gloves and urine bags are to be collected in _____.

- Ans
- 1. Blue white coloured bins
 - 2. Red coloured bins
 - 3. Black coloured bins
 - 4. Yellow coloured bins

Question ID : 1841224605
Status : Answered
Chosen Option : 3

Q.78 Which of the following type of foundation is classified as deep foundation?

- Ans
- 1. Strip foundation
 - 2. Raft foundation
 - 3. Pile foundation
 - 4. Grillage foundation

Question ID : 1841224561
Status : Answered
Chosen Option : 3

Q.79 Identify the incorrect statement with respect to prestressed concrete.

- Ans
- 1. Post tensioned precast members belongs to group of bonded prestressed concrete members.
 - 2. A stretched element used in a concrete member of structures to impart prestress to the concrete is termed as tendon.
 - 3. The centroid of tendon coincides with that of concrete section in case of axial prestressing.
 - 4. Prestressed concrete in which tensile stresses in the concrete are entirely obviated at working loads by having sufficiently high prestress in the members is known to be full prestressing.

Question ID : 1841224588
Status : Answered
Chosen Option : 1

Q.80 Benkelman beam method is most commonly used for measurement of _____.

- Ans
- 1. fatigue load that can be applied on pavement
 - 2. cross slope of pavement surface
 - 3. longitudinal gradient of pavement
 - 4. transient deflection of pavement under design wheel load

Question ID : 1841224616
Status : Answered
Chosen Option : 4