DSSSB
AE

Previous Year Paper
(Civil)
30 Jun, 2024 Shift 2

GOVT. OF NCT OF DELHI
Delhi Subordinate Services Selection Board
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Participant ID	
Participant Name	
Test Center Name	
Test Date	30/06/2024
Test Time	12:30 PM - 2:30 PM
Subject	Assistant Engineer (Civil)

Section : **General intelligence and Reasoning Ability**

Q.1 Choose the alternative which closely resembles the mirror image of the given combination.

PINERAT

Ans ✔ 1. TAREИIꟼ

 ✘ 2. TAЯƎИIꟼ

 ✘ 3. TAЯƎИIꟼ

 ✘ 4. TAЯEИIꟼ

Question ID : **63068083975**
Option 1 ID : **630680325494**
Option 2 ID : **630680325495**
Option 3 ID : **630680325493**
Option 4 ID : **630680325492**

Q.2 This question is based on the following words.
YEN FUN LID BYE
How many letters are there between the second letter of the first word from the left and the second letter of the second word from the right?

Ans ✘ 1. 5

 ✘ 2. 2

 ✘ 3. 6

 ✔ 4. 3

Question ID : **630680519261**
Option 1 ID : **6306802029490**
Option 2 ID : **6306802029488**
Option 3 ID : **6306802029491**
Option 4 ID : **6306802029489**

Q.3 Z, X, Y, A, B, C and D have an exam each on a different day of a week starting from Monday and ending on Sunday of the same week. B has the exam on Friday, and one person has the exam between B and D. Z has the exam immediately after X. Y has the exam on Monday and immediately before X. A has the exam on one of the days before B. Who has the exam on Sunday?

Ans ✗ 1. C

✗ 2. A

✗ 3. Z

✔ 4. D

Question ID : **630680393917**
Option 1 ID : **6306801535978**
Option 2 ID : **6306801535981**
Option 3 ID : **6306801535979**
Option 4 ID : **6306801535980**

Q.4 Pritam, Anil, Rupam, Naveen, Tania, Vishal, Fara and Kuntal are sitting around a circle facing the center. Tania is second to the right of Rupam and third to the left of Pritam. Anil and Naveen are not an immediate neighbour of Rupam. Kuntal sits to the immediate right of Pritam. Fara sits third to the right of Naveen. How many people are sitting between Vishal and Naveen, when counted from the right of Vishal?

Ans ✗ 1. 3

✗ 2. 4

✔ 3. 2

✗ 4. 1

Question ID : **630680540652**
Option 1 ID : **6306802113683**
Option 2 ID : **6306802113686**
Option 3 ID : **6306802113685**
Option 4 ID : **6306802113684**

Q.5 Each of the digits in the number 45789652546 is arranged in descending order from left to right. What will be the sum of the digits that are second from the left and second from the right in the new number thus formed?

Ans ✗ 1. 14

✗ 2. 13

✗ 3. 11

✔ 4. 12

Question ID : **630680452003**
Option 1 ID : **6306801765089**
Option 2 ID : **6306801765088**
Option 3 ID : **6306801765086**
Option 4 ID : **6306801765087**

Q.6 Each of the digits in the number 5397821 are arranged in the ascending order from left to right. What will be the third digit from the left in the new number thus formed?

Ans ✗ 1. 5

✗ 2. 1

✔ 3. 3

✗ 4. 9

Question ID : **63068083742**
Option 1 ID : **630680324587**
Option 2 ID : **630680324585**
Option 3 ID : **630680324584**
Option 4 ID : **630680324586**

Q.7 What should come in place of '?' in the given series?

54 73 91 108 124 ?

Ans ✔ 1. 139

✘ 2. 141

✘ 3. 140

✘ 4. 142

Question ID : **630680560868**
Option 1 ID : **6306802192484**
Option 2 ID : **6306802192486**
Option 3 ID : **6306802192485**
Option 4 ID : **6306802192487**

Q.8 What should come in place of the question mark (?) in the given series?
8, 9, 12, 17, 24, ?

Ans ✘ 1. 37

✔ 2. 33

✘ 3. 34

✘ 4. 32

Question ID : **63068083910**
Option 1 ID : **630680325235**
Option 2 ID : **630680325232**
Option 3 ID : **630680325234**
Option 4 ID : **630680325233**

Q.9 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Which numbers should replace X and Y so that the pattern followed by the two numbers on the left side of :: is the same as that on the right side of :: ?
(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)
X : 64 :: 9 : Y

Ans ✘ 1. X = 12, Y = 88

✔ 2. X = 8, Y = 81

✘ 3. X = 10, Y =114

✘ 4. X = 8, Y = 70

Question ID : **630680397971**
Option 1 ID : **6306801551901**
Option 2 ID : **6306801551898**
Option 3 ID : **6306801551900**
Option 4 ID : **6306801551899**

Q.10 KNLM is related to QTRS in a certain way based on the English alphabetical order. In the same way, ADBC is related to GJHI. To which of the following is ORPQ related, following the same logic?

Ans ✘ 1. UYVW

✘ 2. TXUV

✔ 3. UXVW

✘ 4. UYVX

Question ID : **63068083544**
Option 1 ID : **630680323880**
Option 2 ID : **630680323882**
Option 3 ID : **630680323883**
Option 4 ID : **630680323881**

Q.11 What will come in place of the question mark (?) in the following equation if '+' and '−' are interchanged and '×' and '÷' are interchanged?

8 ÷ 3 × 2 − 8 + 2 = ?

Ans

✗ 1. 24

✓ 2. 18

✗ 3. 10

✗ 4. 20

Question ID : **630680374626**
Option 1 ID : **6306801459673**
Option 2 ID : **6306801459672**
Option 3 ID : **6306801459674**
Option 4 ID : **6306801459671**

Q.12 C is the brother of D. D is the father of E. E is the wife of F. F is the son of G. How is C related to G?

Ans

✗ 1. Son's wife's father's father

✗ 2. Son's wife's mother's father

✓ 3. Son's wife's father's brother

✗ 4. Son's wife's mother's brother

Question ID : **630680493597**
Option 1 ID : **6306801928118**
Option 2 ID : **6306801928119**
Option 3 ID : **6306801928116**
Option 4 ID : **6306801928117**

Q.13 A family consists of 6 members P, Q, R, X, S and T. Q is the son of R, but R is not the mother of Q. P and R are a married couple. S is the brother of R. X is the daughter of P. T is the brother of P. How many male members are there in the family?
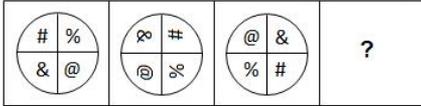
Ans

✗ 1. 1

✓ 2. 4

✗ 3. 2

✗ 4. 6

Question ID : **63068057238**
Option 1 ID : **630680220797**
Option 2 ID : **630680220795**
Option 3 ID : **630680220794**
Option 4 ID : **630680220796**

Q.14 Based on the alphabetical order, three of the following four are alike in a certain way and thus form a group. Which is the one that does NOT belong to that group?
(Note: The odd man out is not based on the number of consonants/vowels or their position in the letter-cluster)

Ans

✗ 1. LPK

✓ 2. IMG

✗ 3. EID

✗ 4. NRM

Question ID : **630680527057**
Option 1 ID : **6306802060263**
Option 2 ID : **6306802060261**
Option 3 ID : **6306802060262**
Option 4 ID : **6306802060264**

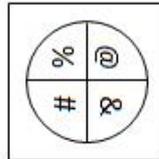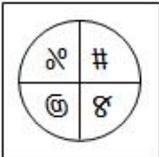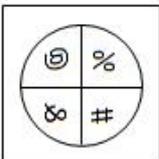**Q.15** Select the figure from the options that can replace the question mark (?) and complete the pattern.

#	%	∞	#	@	&	?
&	@	⑨	%	%	#	

Ans

✗ 1.

✔ 2.

✗ 3.

✗ 4.

Question ID : **63068057728**
Option 1 ID : **630680222753**
Option 2 ID : **630680222751**
Option 3 ID : **630680222752**
Option 4 ID : **630680222750**

Q.16 8 is related to 100 following a certain logic. Following the same logic, 12 is related to 196. To which of the following is 13 related following the same logic?

Ans
✗ 1. 144
✗ 2. 156
✗ 3. 169
✔ 4. 225

Question ID : **63068083427**
Option 1 ID : **630680323517**
Option 2 ID : **630680323516**
Option 3 ID : **630680323519**
Option 4 ID : **630680323518**

Q.17 AZCX is related to BYDW in a certain way based on the English alphabetical order. In the same way, IRKP is related to JQLO. To which of the following is EVGT related, following the same logic?

Ans
✗ 1. UFHS
✗ 2. FSHU
✔ 3. FUHS
✗ 4. FUHR

Question ID : **63068083542**
Option 1 ID : **630680323874**
Option 2 ID : **630680323875**
Option 3 ID : **630680323872**
Option 4 ID : **630680323873**

Q.18 Select the set in which the numbers are related in the same way as are the numbers of the followingsets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(16 , 32 , 62)
(27 , 54 , 84)

Ans ✗ 1. (18 , 36 , 76)

✓ 2. (21 , 42 , 72)

✗ 3. (25 , 50 , 70)

✗ 4. (34 , 88 , 108)

Question ID : **630680536150**
Option 1 ID : **6306802095919**
Option 2 ID : **6306802095917**
Option 3 ID : **6306802095918**
Option 4 ID : **6306802095916**

Q.19 Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster does not belong to that group?

(Note: The odd man out is not based on the number of consonants/vowels or their position in the letter cluster.)

Ans ✗ 1. RNP

✗ 2. NJL

✗ 3. VRT

✓ 4. KGJ

Question ID : **630680527060**
Option 1 ID : **6306802060275**
Option 2 ID : **6306802060274**
Option 3 ID : **6306802060276**
Option 4 ID : **6306802060273**

Q.20 This question is based on the following four, 3-letter words.
PEN BOX HAT CAT
If in each of the words, each letter is changed to the next letter in the English alphabetical order, how many letter-clusters thus formed will have no vowel?

Ans ✗ 1. None

✗ 2. Two

✓ 3. One

✗ 4. Three

Question ID : **630680384001**
Option 1 ID : **6306801496902**
Option 2 ID : **6306801496900**
Option 3 ID : **6306801496899**
Option 4 ID : **6306801496901**

Section : **General Awareness**

Q.1 Which of the following is a type of functional food?

Ans ✗ 1. Wadis

✗ 2. Pickles

✗ 3. Marmalade

✔ 4. Probiotics

Question ID : **63068074817**
Option 1 ID : **630680289424**
Option 2 ID : **630680289426**
Option 3 ID : **630680289423**
Option 4 ID : **630680289425**

Q.2 Which of the following is a characteristic of the Fractional Reserve Banking System?

Ans ✗ 1. Banks are not allowed to lend out any of their deposits

✔ 2. Banks are required to hold less than 10% of their deposits as reserves

✗ 3. Banks are allowed to lend out more than they hold in reserves

✗ 4. Banks are required to hold 100% of their deposits as reserves

Question ID : **630680321526**
Option 1 ID : **6306801250811**
Option 2 ID : **6306801250812**
Option 3 ID : **6306801250810**
Option 4 ID : **6306801250809**

Q.3 Which Article of the Indian Constitution provides for an independent office of the CAG?

Ans ✔ 1. Article 148

✗ 2. Article 76

✗ 3. Article 149

✗ 4. Article 165

Question ID : **630680326533**
Option 1 ID : **6306801270217**
Option 2 ID : **6306801270219**
Option 3 ID : **6306801270218**
Option 4 ID : **6306801270220**

Q.4 The contents of living plant cells shrink or contract away from the cell wall when the cell loses water through osmosis. This phenomenon is known as:

Ans ✗ 1. reverse osmosis

✔ 2. plasmolysis

✗ 3. endocytosis

✗ 4. membrane biogenesis

Question ID : **630680517129**
Option 1 ID : **6306802020914**
Option 2 ID : **6306802020915**
Option 3 ID : **6306802020912**
Option 4 ID : **6306802020913**

Q.5 जातिगत समानता को बढ़ावा देने के लिए काम करने वाले _____ की स्थापना ज्योतिराव फुले ने की थी।

Ans ✗ 1. देव समाज

✗ 2. आर्य समाज

✓ 3. सत्यशोधक समाज

✗ 4. प्रार्थना समाज

Question ID : **630680780435**
Option 1 ID : **6306803058833**
Option 2 ID : **6306803058834**
Option 3 ID : **6306803058831**
Option 4 ID : **6306803058832**

Q.6 What was the combined percentage of the Extremely Backward Classes and Other Backward Classes in Bihar's total population, according to the report on 2 October 2023?

Ans ✓ 1. 0.63

✗ 2. 0.3

✗ 3. 0.5

✗ 4. 0.4

Question ID : **630680780434**
Option 1 ID : **6306803058830**
Option 2 ID : **6306803058827**
Option 3 ID : **6306803058829**
Option 4 ID : **6306803058828**

Q.7 As per the Census of India, what is sex ratio?

Ans ✗ 1. Number of populations per thousand females and males

✗ 2. Number of males and females per thousand

✗ 3. Number of males per thousand females

✓ 4. Number of females per thousand males

Question ID : **630680134793**
Option 1 ID : **630680521993**
Option 2 ID : **630680521992**
Option 3 ID : **630680521990**
Option 4 ID : **630680521991**

Q.8 Which of the following teams won the finals of the Senior Women's Inter Zonal Multi-Day Trophy 2024?

Ans ✓ 1. East zone

✗ 2. Central zone

✗ 3. South zone

✗ 4. West zone

Question ID : **630680759926**
Option 1 ID : **6306802978598**
Option 2 ID : **6306802978600**
Option 3 ID : **6306802978601**
Option 4 ID : **6306802978599**

Q.9 Which of the following rivers falls into the Bay of Bengal?

Ans ✗ 1. Tapi river

✓ 2. Godavari river

✗ 3. Narmada river

✗ 4. Sabarmati river

Question ID : **630680511082**
Option 1 ID : **6306801997461**
Option 2 ID : **6306801997458**
Option 3 ID : **6306801997460**
Option 4 ID : **6306801997459**

Q.10 निम्नलिखित में से कौन सी जयंतिया पहाड़ियों की चोटी है?

Ans ✓ 1. लुम मैरिन्शह (Lum Maryngksih) चोटी

✗ 2. चितमांग चोटी

✗ 3. तुरा चोटी

✗ 4. नोकरेक (Nokrek) चोटी

Question ID : **63068080385**
Option 1 ID : **630680311566**
Option 2 ID : **630680311568**
Option 3 ID : **630680311565**
Option 4 ID : **630680311567**

Q.11 पंडित विष्णु परशराम शास्त्री ने _____ में विधवा विवाह उत्तेजक मंडल (विधवा विवाह को प्रोत्साहित करने के लिए सोसायटी) की शुरुआत की थी।

Ans ✗ 1. पंजाब

✓ 2. महाराष्ट्र

✗ 3. बिहार

✗ 4. बंगाल

Question ID : **630680339405**
Option 1 ID : **6306801320191**
Option 2 ID : **6306801320189**
Option 3 ID : **6306801320192**
Option 4 ID : **6306801320190**

Q.12 Which of the following is a Palnadu Rebellion against Tax?

Ans ✗ 1. Alluri Sitarama Raju

✓ 2. Kaneganti Hanumanthu

✗ 3. Prafulla Chaki

✗ 4. Bhavabhushan Mitra

Question ID : **63068087078**
Option 1 ID : **630680337704**
Option 2 ID : **630680337702**
Option 3 ID : **630680337701**
Option 4 ID : **630680337703**

Q.13 निम्नलिखित में से कौन-सा विकल्प भारत में 'पंजीकरण द्वारा नागरिकता' के अंतर्गत नहीं आता है?

Ans ✗ 1. भारतीय मूल के वे व्यक्ति जो आवेदन करने से ठीक पहले सामान्य रूप से पांच साल तक भारत के निवासी रहे हैं

✓ 2. ऐसा विदेशी व्यक्ति जो आवेदन करने से ठीक पहले आम तौर पर कम से कम 10 वर्षों तक भारत में रहा हो

✗ 3. भारतीय मूल के ऐसे व्यक्ति जो सामान्यतः भारत के बाहर किसी देश या स्थान के निवासी हैं

✗ 4. उन व्यक्तियों के नाबालिग बच्चे जो भारत के नागरिक हैं

Question ID : **630680304088**
Option 1 ID : **6306801182916**
Option 2 ID : **6306801182915**
Option 3 ID : **6306801182913**
Option 4 ID : **6306801182914**

Q.14 Which of the following Articles mentions about the establishment and constitution of Supreme Court?

Ans ✗ 1. Article 122

✗ 2. Article 121

✗ 3. Article 123

✓ 4. Article 124

Question ID : **630680511455**
Option 1 ID : **6306801998951**
Option 2 ID : **6306801998950**
Option 3 ID : **6306801998952**
Option 4 ID : **6306801998953**

Q.15 हिन्दू पंचांग के अनुसार दशहरे का पर्व कब मनाया जाता है?

Ans ✗ 1. मार्गशीर्ष कृष्ण दशमी

✓ 2. अश्विन शुक्ल दशमी

✗ 3. कार्तिक शुक्ल दशमी

✗ 4. आषाढ़ कृष्ण दशमी

Question ID : **630680512117**
Option 1 ID : **6306802001440**
Option 2 ID : **6306802001439**
Option 3 ID : **6306802001441**
Option 4 ID : **6306802001438**

Q.16 निम्नलिखित में से कौन-सा मौर्य-काल के शासनकला के बारे में प्राचीन ग्रंथ है?

Ans ✗ 1. कालिदास रचित मेघदूतम्

✗ 2. हर्ष रचित प्रियदर्शिका

✗ 3. बाणभट्ट रचित हर्षचरित

✓ 4. कौटिल्य रचित अर्थशास्त्र

Question ID : **630680393993**
Option 1 ID : **6306801536274**
Option 2 ID : **6306801536276**
Option 3 ID : **6306801536275**
Option 4 ID : **6306801536277**

Q.17 Which of the following tools are available to the central bank for the money supply?
1. Variation of the discount rate
2. Clearing house operation
3. Changes in margin requirements

Ans ✅ 1. 1 and 3

❌ 2. 1, 2, and 3

❌ 3. 1 and 2

❌ 4. 2 and 3

Question ID : **630680323665**
Option 1 ID : **6306801259162**
Option 2 ID : **6306801259161**
Option 3 ID : **6306801259164**
Option 4 ID : **6306801259163**

Q.18 Which of the following languages does NOT belong to the Dravidian family?

Ans ❌ 1. Malayalam

❌ 2. Kannada

❌ 3. Tamil

✅ 4. Marathi

Question ID : **63068086125**
Option 1 ID : **630680333933**
Option 2 ID : **630680333932**
Option 3 ID : **630680333934**
Option 4 ID : **630680333935**

Q.19 In September 2023, which state government initiated the Mukhyamantri Sporting Abilities, Rebuilding Aspirations and Livelihood (SABAL) Scheme aimed at empowering children with special abilities?

Ans ❌ 1. Maharashtra

❌ 2. Bihar

❌ 3. Karnataka

✅ 4. Himachal Pradesh

Question ID : **630680780431**
Option 1 ID : **6306803058816**
Option 2 ID : **6306803058817**
Option 3 ID : **6306803058818**
Option 4 ID : **6306803058815**

Q.20 Who among the following opened his first school exclusively for girls in Poona and founded the Satyashodhak Samaj or Society of Truth Seekers, advocating for the rights of exploited caste members?

Ans ✅ 1. Jyotirao Govindrao Phule

❌ 2. Raja Ram Mohan Roy

❌ 3. Dr. BR Ambedkar

❌ 4. Swami Vivekananda

Question ID : **630680769767**
Option 1 ID : **6306803017004**
Option 2 ID : **6306803017006**
Option 3 ID : **6306803017005**
Option 4 ID : **6306803017007**

Section : **Arithmetical and Numerical Ability**

Q.1 The marked price of an item is ₹50 more than cost price. Shopkeeper gets ₹15 pro fit per item and there is 12.5% discount on the marked price. What is the cost price of the item in ₹?

Ans ✗ 1. 280

✗ 2. 250

✗ 3. 220

✔ 4. 230

Question ID : **630680227066**
Option 1 ID : **630680880958**
Option 2 ID : **630680880955**
Option 3 ID : **630680880957**
Option 4 ID : **630680880956**

Q.2 A solid right-circular cylinder, whose radius of the base is 24 cm and whose height is 15 cm, is melted and moulded in the shape of a solid right-circular cone, whose radius of the base is 36 cm. What will be the height (in cm) of this cone?

Ans ✔ 1. 20

✗ 2. 24

✗ 3. 22.5

✗ 4. 18

Question ID : **630680325039**
Option 1 ID : **6306801264556**
Option 2 ID : **6306801264554**
Option 3 ID : **6306801264553**
Option 4 ID : **6306801264555**

Q.3 Find the compound interest on ₹12,000 for 3 years at 10% per annum compounded annually.

Ans ✗ 1. ₹3,872

✗ 2. ₹3,672

✔ 3. ₹3,972

✗ 4. ₹3,772

Question ID : **630680287995**
Option 1 ID : **6306801119888**
Option 2 ID : **6306801119890**
Option 3 ID : **6306801119887**
Option 4 ID : **6306801119889**

Q.4 A shopkeeper sells an item at a profit of 20% and uses a weight which is 20% less. Find his total profit percentage

Ans ✗ 1. 35%

✔ 2. 50%

✗ 3. 40%

✗ 4. 45%

Question ID : **630680137697**
Option 1 ID : **630680533121**
Option 2 ID : **630680533118**
Option 3 ID : **630680533120**
Option 4 ID : **630680533119**

Q.5 A TV is sold for ₹72,000 cash or ₹48,000 cash down payment followed by a monthly instalment of ₹26,000. The rate of interest charged under the instalment plan is:

Ans ✗ 1. 50%

✔ 2. 100%

✗ 3. 25%

✗ 4. 42%

Question ID : **630680130605**
Option 1 ID : **630680505716**
Option 2 ID : **630680505717**
Option 3 ID : **630680505715**
Option 4 ID : **630680505714**

Q.6 A solid metallic hemisphere is made of some heavy metal 'P', and has a radius 42 cm. To reduce its weight, a concentric hemispherical cavity is made in the hemisphere, which has a diameter of 36 cm. The cavity is filled completely with a lighter metal 'Q'. The surface area of metal Q that is exposed to the atmosphere is what percentage (rounded off to 2 decimal places) of the surface area of metal P that is exposed to the atmosphere?

Ans ✗ 1. 12.24%

✗ 2. 9.76%

✗ 3. 16.25%

✔ 4. 6.52%

Question ID : **630680399580**
Option 1 ID : **6306801558198**
Option 2 ID : **6306801558197**
Option 3 ID : **6306801558195**
Option 4 ID : **6306801558196**

Q.7 Gori got 20% increment in her salary. Now her savings are ₹20,000 per month and her expenditure is ₹5,000 more than her savings. Find Gori's old salary.

Ans ✔ 1. ₹37,500

✗ 2. ₹54,200

✗ 3. ₹42,500

✗ 4. ₹43,200

Question ID : **630680101815**
Option 1 ID : **630680395621**
Option 2 ID : **630680395623**
Option 3 ID : **630680395620**
Option 4 ID : **630680395622**

Q.8 The incomes of P, Q and R are in the ratio of 3 : 5 : 10 and their savings are in the ratio is 2 : 5 : 6. If Q spends 60% of his income, what is the ratio of the expenditures of P, Q and R?

Ans ✗ 1. 13 : 5 : 16

✗ 2. 15 : 14 : 20

✔ 3. 11 : 15 : 38

✗ 4. 25 : 15 : 18

Question ID : **630680550828**
Option 1 ID : **6306802153554**
Option 2 ID : **6306802153556**
Option 3 ID : **6306802153553**
Option 4 ID : **6306802153555**

Q.9 The greatest five-digit number which is exactly divisible by each of the numbers 13, 21, 27 and 33 is:

Ans ✗ 1. 98101

✗ 2. 87501

✗ 3. 86087

✓ 4. 81081

Question ID : **630680524059**
Option 1 ID : **6306802048387**
Option 2 ID : **6306802048388**
Option 3 ID : **6306802048390**
Option 4 ID : **6306802048389**

Q.10 The average of three numbers is 20. If two numbers are 16 and 25, the third number is:

Ans ✗ 1. 18

✗ 2. 20

✗ 3. 21

✓ 4. 19

Question ID : **630680552121**
Option 1 ID : **6306802158710**
Option 2 ID : **6306802158711**
Option 3 ID : **6306802158712**
Option 4 ID : **6306802158709**

Q.11 If a rectangular piece of paper 44 cm × 8 cm is folded without overlapping, to make a cylinder of height 8 cm, then the volume (in cm³) of the cylinder is:

$(\text{Use } \pi = \frac{22}{7})$

Ans ✗ 1. 616

✗ 2. 661

✗ 3. 1322

✓ 4. 1232

Question ID : **630680374111**
Option 1 ID : **6306801457717**
Option 2 ID : **6306801457715**
Option 3 ID : **6306801457716**
Option 4 ID : **6306801457718**

Q.12 If 40 men can build a 112 m long wall in 12 days, then a similar wall of what length can be built by 70 men in 6 days?

Ans ✓ 1. 98 m

✗ 2. 100 m

✗ 3. 90 m

✗ 4. 80 m

Question ID : **630680263601**
Option 1 ID : **6306801024044**
Option 2 ID : **6306801024045**
Option 3 ID : **6306801024046**
Option 4 ID : **6306801024043**

Q.13 यदि a और b के बीच माध्यानुपाती 6 है, तो 3a और 12b के बीच माध्यानुपाती ज्ञात कीजिए।

Ans
✗ 1. 30

✗ 2. 18

✗ 3. 24

✓ 4. 36

Question ID : 630680625022
Option 1 ID : 6306802446251
Option 2 ID : 6306802446249
Option 3 ID : 6306802446250
Option 4 ID : 6306802446252

Q.14 If $25.65 - 83.67 + 56.71 + 33.52 - 17.23$ is written as a mixed fraction $a\frac{b}{c}$ in standard form, then the value of $c - b + a$ is:

Ans
✓ 1. 15

✗ 2. 21

✗ 3. 19

✗ 4. 18

Question ID : 630680524121
Option 1 ID : 6306802048636
Option 2 ID : 6306802048635
Option 3 ID : 6306802048638
Option 4 ID : 6306802048637

Q.15 A train, 130 m long, overtakes another train, 120 m long, moving in the same direction in 15 minutes. If the second train is moving at a speed of 60 km/h, find the speed of the first train (in km/h).

Ans
✗ 1. 65

✓ 2. 61

✗ 3. 64

✗ 4. 63

Question ID : 630680471869
Option 1 ID : 6306801843197
Option 2 ID : 6306801843196
Option 3 ID : 6306801843194
Option 4 ID : 6306801843195

Q.16 The number of the prime numbers which are less than 102 is:
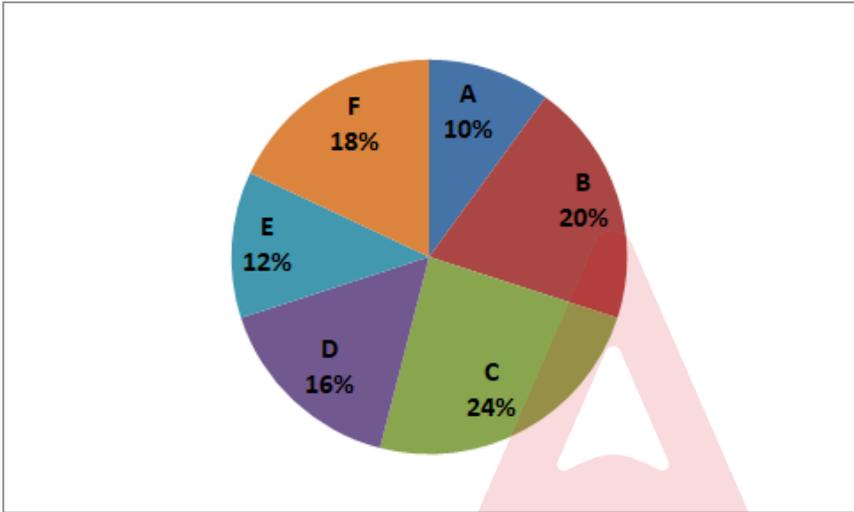
Ans
✗ 1. 25

✗ 2. 24

✗ 3. 27

✓ 4. 26

Question ID : 630680428926
Option 1 ID : 6306801673748
Option 2 ID : 6306801673751
Option 3 ID : 6306801673750
Option 4 ID : 6306801673749

Q.17 48 men can do a work in 5 days while 40 women can do the same work in 9 days. In how many days 4 men and 6 women together can do the same work?

Ans ✔ 1. 30

✗ 2. 48

✗ 3. 24

✗ 4. 42

Question ID : **630680288029**
Option 1 ID : **6306801120024**
Option 2 ID : **6306801120026**
Option 3 ID : **6306801120023**
Option 4 ID : **6306801120025**

Q.18 The given pie chart illustrates the percentage distribution of the total number of male teachers in six schools A, B, C, D, E, and F. The total number of male teachers combining all schools is 8400. Study the chart and answer the question that follows.

The total number of female teachers in schools A and B is 20% more than that of male teachers. In school C, the number of female teachers is 50% more than that of male teachers. Find the total number of female teachers in schools A, B, and C.

Ans ✗ 1. 6098

✔ 2. 6048

✗ 3. 6020

✗ 4. 6065

Question ID : **630680625250**
Option 1 ID : **6306802447204**
Option 2 ID : **6306802447202**
Option 3 ID : **6306802447201**
Option 4 ID : **6306802447203**

Q.19 Rana leaves Delhi at 6:00 a.m. and reaches Jalandhar at 2:00 p.m. On the same day, Basanthi leaves Jalandhar at 8:00 a.m. and reaches Delhi at 3:00 p.m. At what time do the two cross each other? (Presume that both are following the same root but in opposite directions)

Ans ✗ 1. 11:00 a.m.

 ✗ 2. 11:46 a.m.

 ✓ 3. 10:48 a.m.

 ✗ 4. 11:24 a.m.

Question ID : **63068071102**
Option 1 ID : **630680275005**
Option 2 ID : **630680275002**
Option 3 ID : **630680275004**
Option 4 ID : **630680275003**

Q.20 Study the given table carefully.

The table shows the marks obtained by four students in five subjects in the examination.

Student/Subject	Physics	English	Mathematics	Chemistry	Hindi
A	70	75	85	76	65
B	80	65	75	80	78
C	90	75	70	80	76
D	75	85	80	74	65

Which of the following candidates has the highest percentage in aggregate, if highest marks in each subject is 100?

Ans ✓ 1. C

 ✗ 2. A

 ✗ 3. B

 ✗ 4. D

Question ID : **63068094365**
Option 1 ID : **630680366157**
Option 2 ID : **630680366156**
Option 3 ID : **630680366155**
Option 4 ID : **630680366158**

Section : **English Language and Comprehension**

Q.1 Select the most appropriate option to fill in the blank.
Only sportsmen are fit _____ the post.

Ans ✗ 1. to

 ✗ 2. on

 ✗ 3. in

 ✓ 4. for

Question ID : **630680195131**
Option 1 ID : **630680757013**
Option 2 ID : **630680757014**
Option 3 ID : **630680757016**
Option 4 ID : **630680757015**

Q.2 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.
A. His reputation went beyond Rajasthan and reached Delhi.
B. The destiny of Mewar was good in the sense that barring a few kings, most of the rulers were competent and patriotic.
C. In fact, only 60 years before Maharana Pratap, Rana Sanga drove the kingdom to the pinnacle of fame.
D. This glorious tradition of the kingdom almost continued for 1,500 years since its establishment, right from the reign of Bappa Rawal.

Ans ✗ 1. DACB

✗ 2. ABCD

✓ 3. BDCA

✗ 4. BCAD

Question ID : **630680204348**
Option 1 ID : **630680792478**
Option 2 ID : **630680792476**
Option 3 ID : **630680792475**
Option 4 ID : **630680792477**

Q.3 Select the option with the correct spelling to substitute the underlined word in the given sentence.
This community of people were never <u>inocullated</u>.

Ans ✗ 1. innoculated

✗ 2. inocculated

✗ 3. inoculatted

✓ 4. inoculated

Question ID : **630680517552**
Option 1 ID : **6306802022605**
Option 2 ID : **6306802022607**
Option 3 ID : **6306802022604**
Option 4 ID : **6306802022606**

Q.4 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.
A. Our forefathers loved trees and forests so much that they even deified and worshiped them as abodes of Vriksha Devata and Vanadevata.
B. In India, as perhaps in many other countries of the world, trees have been held in veneration since ancient times.
C. Our rishis of yore retired to forests to meditate and to do penance amidst trees"far from the madding crowd".
D. Many of them were not cut without good reason.

Ans ✗ 1. ABCD

✗ 2. DCAB

✓ 3. BCAD

✗ 4. CBDA

Question ID : **630680204351**
Option 1 ID : **630680792487**
Option 2 ID : **630680792490**
Option 3 ID : **630680792488**
Option 4 ID : **630680792489**

Q.5 Select the most appropriate ANTONYM of the underlined word.

He showed that he has no real advisors left – only <u>sycophants</u>.

Ans ✗ 1. Managers

✓ 2. Sincere

✗ 3. Followers

✗ 4. Teachers

Question ID : **630680421686**
Option 1 ID : **6306801645208**
Option 2 ID : **6306801645209**
Option 3 ID : **6306801645210**
Option 4 ID : **6306801645207**

Q.6 Select the most appropriate option to fill in the blank.
They had gone _____ a leisurely walk just now.

Ans ✗ 1. at

✓ 2. for

✗ 3. to

✗ 4. on

Question ID : **630680295863**
Option 1 ID : **6306801151167**
Option 2 ID : **6306801151166**
Option 3 ID : **6306801151164**
Option 4 ID : **6306801151165**

Q.7 Select the most appropriate option to fill in the blank.
Geeta gets up _____dawn and studies for three hours.

Ans ✓ 1. at

✗ 2. with

✗ 3. in

✗ 4. on

Question ID : **630680196039**
Option 1 ID : **630680760544**
Option 2 ID : **630680760545**
Option 3 ID : **630680760543**
Option 4 ID : **630680760546**

Q.8 Sentences of a paragraph are given below in jumbled order. Select the most logical order of sentences from the given options to construct a meaningful and coherent paragraph.
1. This generalisation of a gender's aptitude and talent might occasionally stifle or slow down professional advancement.
2. Because the concerned authority believe that a feminine person may not be able to tolerate the vigorousness involved with the task in question, a role that is typically performed by the masculine gender in the workplace may go unnoticed.
3. And the male gender has unquestionably been given physical strength and endurance by nature, but this may not be the case when it comes to mental capacity, precise and reasonable reasoning, and emotional power.
4. Due to society's limited chances for women, the psychological nature of the society today makes it more difficult for women to succeed.

Ans ✅ 1. 4, 2, 1, 3

❌ 2. 4, 3, 1, 2

❌ 3. 3, 2, 4, 1

❌ 4. 3, 4, 1, 2

Question ID : **630680177215**
Option 1 ID : **630680687048**
Option 2 ID : **630680687051**
Option 3 ID : **630680687050**
Option 4 ID : **630680687049**

Q.9 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.
A. With the arrival of summer, prices of lemons have increased over the past one week.
B. A single lemon is being sold at Rupees 10 in many parts of the country.
C. Consumers have expressed their displeasure about the rising price of the fruit.
D. Traders say the price of lemon will further shoot up owing to a shortage of supply and high demand.

Ans ❌ 1. DCAB

❌ 2. CDAB

✅ 3. ABCD

❌ 4. DBAC

Question ID : **630680204404**
Option 1 ID : **630680792700**
Option 2 ID : **630680792702**
Option 3 ID : **630680792699**
Option 4 ID : **630680792701**

Q.10 Select the most appropriate ANTONYM of the underlined word.
The idea of not granting indemnity is to hold vaccine manufacturers accountable.

Ans ✅ 1. exempt

❌ 2. tight

❌ 3. lazy

❌ 4. responsible

Question ID : **63068071210**
Option 1 ID : **630680275428**
Option 2 ID : **630680275429**
Option 3 ID : **630680275426**
Option 4 ID : **630680275427**

Q.11 Select the most appropriate meaning of the given proverb.
The poor carpenter blames his tools.

Ans ✗ 1. Take ownership of your success instead of praising others.

✗ 2. Take ownership of your mistakes.

✗ 3. Take ownership of your mistakes instead of placing the blame elsewhere.

✓ 4. Take no responsibility of your mistakes and place the blame elsewhere.

Question ID : **630680206322**
Option 1 ID : **630680800067**
Option 2 ID : **630680800068**
Option 3 ID : **630680800070**
Option 4 ID : **630680800069**

Q.12 Select the most appropriate option to fill in the blank.
Rani and Rakhi can perform well with the support of _____ good orchestra.

Ans ✗ 1. each

✗ 2. an

✗ 3. whose

✓ 4. a

Question ID : **63068054647**
Option 1 ID : **630680210624**
Option 2 ID : **630680210622**
Option 3 ID : **630680210625**
Option 4 ID : **630680210623**

Q.13 Select the most appropriate option to fill in the blank.
Matthew gets _____ additional income from his farming activities.

Ans ✓ 1. an

✗ 2. both

✗ 3. each

✗ 4. a

Question ID : **63068054646**
Option 1 ID : **630680210620**
Option 2 ID : **630680210618**
Option 3 ID : **630680210621**
Option 4 ID : **630680210619**

Q.14 Select the most appropriate meaning of the given proverb.
A bird in hand is worth two in the bush.

Ans ✗ 1. This is said when you recognise that you should risk losing something you already have by trying to get something you think might be better.

✓ 2. This is said when you recognise that you should not risk losing something you already have by trying to get something you think might be better.

✗ 3. This is said when you enjoy losing something you already have by trying to get something you think might be better.

✗ 4. This is said when you ignore that you have lost everything after gambling away your fortunes.

Question ID : **630680159750**
Option 1 ID : **630680618463**
Option 2 ID : **630680618460**
Option 3 ID : **630680618461**
Option 4 ID : **630680618462**

Q.15 Select the INCORRECTLY spelt word.

Ans ✔ 1. Momantarily

✘ 2. Knowledgeable

✘ 3. Limitedness

✘ 4. Narratological

Question ID : **630680550045**
Option 1 ID : **6306802150443**
Option 2 ID : **6306802150441**
Option 3 ID : **6306802150442**
Option 4 ID : **6306802150444**

Comprehension:

Read the given passage and answer the questions that follow.

One thing immediately stuck out to Samar Ahmed when he entered the prestigious surroundings of the Indian Institute of Technology, Delhi. He observed the imbalanced gender ratio in his school from the admissions pamphlet distributed to all kids. Ahmed, a Kanpur native, said there was a noticeable disparity in the number of boys and girls. For instance, 84 boys and 2 ladies make up his mechanical engineering undergraduate class. It's a concern that is voiced more frequently at the Indian Institutes of Management (IIMs), the nation's top-ranked business schools (B-schools), where classrooms are almost as lopsided in their gender ratio as Ahmed's class since they are made up primarily of IIT graduates or other engineers.

The Director of IIM Bangalore (IIM-B), Pankaj Chandra, is concerned that not enough women are enrolling in IIM classes or even applying for the available seats. "Why don't more women apply in greater numbers? What are the obstacles to entry? Chandra is curious. Diversity in the classroom is a big concern, according to his colleague Sourav Mukherji, who was a member of the committee that interviewed the candidates who were selected for seats this year. "Management is so conversation-focused. The class experience is not enriching until you have multiple points of view, according to Mukherji. Think about this. Women made up just 26% of applicants for the most recent Common Admission Test (CAT), which is required to earn a place in an IIM. Out of the 217,588 applicants, 57,048 were women. IIMs still lack information on the number of women who have succeeded, yet a typical IIM class typically has 10-12% female students. IIM Kozhikode (IIM-K) broke through a kind of barrier this year when it admitted 30% of women in its new class, up from 12% last year. The institution even went as far as to release these data to the media since it thought the increase was so important. Director of the B-school Debashish Chatterjee stated, "We want more female students as they often make good managers."

The importance of candidates' prior academic performance was boosted by IIM-K. To assess their linguistic and interpersonal skills, candidates for the interview were required to prepare an essay. According to Chatterjee, the admissions committee had specific instructions on what to look for, including social skills, leadership potential, and language proficiency. We are delighted to approach things differently because a future manager needs to be more effective than just answering questions on a test.

The fact that CAT is heavily quantitative is the main explanation given for why there are less women interested in it. In other words, it favours those who are stronger in math. Engineers are favoured in the translation.

IIT-JEE (Joint Entrance Examination), the prerequisite exam for obtaining undergraduate seats in technical colleges, is the stage at which women fall behind men.

1,048 of the 98,029 female applicants that took the JEE 2009 exam and qualified were female . One in four of the 384,977 candidates that took the JEE 2009 exam were female, and 1% of the women who applied were admitted to an IIT, according to the statistics.

For business schools like the IIMs, where gender diversity is a goal, this information is crucial. 94% of the IIM Ahmedabad (IIM-A) graduating class of 2010 were engineers, according to data gathered by CoolAvenues.com, a community platform for those pursuing a Master of Business Administration. In 2010, graduates from the other IIMs in Bangalore, Indore, and Kozhikode were 86–88% engineers. According to several experts, the multiple-choice format of competitive tests presents a significant barrier for women.

In fact, this notion appears to be supported by the experience of a well-regarded engineering school. In the academic year 2005–2006, the Birla Institute of Technology and Science (BITS), Pilani, launched a competitive exam. Prior to that, admission to the school was based on class XII scores. Just before the exam was introduced in 2004–05, 41% of the class was made up of women. Women's percentage in the class decreased to 15% once the exam was introduced. Women now make up a significantly smaller portion of the student body at a school that was previously moving closer to gender parity. According to BITS Pilani, fewer women may have been admitted to seats due to the competitive exam itself.

Many others disagree, though, given how well women perform on entrance examinations for the fields of law and medicine. 1,073 applicants passed the 2009 common law admission test, which was required to secure undergraduate admission to 11 national law schools. 514 of them were women. In other words, nearly half of the seats were won by women who wanted to practise law.

The inability to get into an engineering programme is attributed more to social conditioning than math, according to test preparation businesses that have worked with female candidates. According to Raja Mitra, chief operating officer of Aakash Educational Services Ltd, a test preparation organisation that specialises in coaching for medical admission exams, "From an Indian perspective, the social role is considerably more significant than a cognitive one." It is more esteemed to be a (female) doctor.

The few women who manage to get past the admission restrictions claim that the struggle is psychological. "I don't see why ladies wouldn't want to take the CAT exam. It's not that difficult," said Urvashi Gupta, a 21-year-old undergraduate student at Delhi University who will be attending IIM-A.

SubQuestion No : 16

Q.16 Identify the suitable title for the passage.

Ans ✗ 1. Admission into IIM – ADifficult One

✗ 2. IIM and Diversity in the Classroom

✓ 3. Entry Barriers Shut Women out of B-Schools

✗ 4. Increasing Gender Disparity in Society

Question ID : **630680204148**

Comprehension:

Read the given passage and answer the questions that follow.

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SubQuestion No : 17

Q.17 Identify the tone of the passage.

Ans ✗ 1. Pessimistic

✓ 2. Feministic

✗ 3. Rationalistic

✗ 4. Liberalistic

Comprehension:

Read the given passage and answer the questions that follow.

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The Director of IIM Bangalore (IIM-B), Pankaj Chandra, is concerned that not enough women are enrolling in IIM classes or even applying for the available seats. "Why don't more women apply in greater numbers? What are the obstacles to entry? Chandra is curious. Diversity in the classroom is a big concern, according to his colleague Sourav Mukherji, who was a member of the committee that interviewed the candidates who were selected for seats this year. "Management is so conversation-focused. The class experience is not enriching until you have multiple points of view, according to Mukherji. Think about this. Women made up just 26% of applicants for the most recent Common Admission Test (CAT), which is required to earn a place in an IIM. Out of the 217,588 applicants, 57,048 were women. IIMs still lack information on the number of women who have succeeded, yet a typical IIM class typically has 10-12% female students. IIM Kozhikode (IIM-K) broke through a kind of barrier this year when it admitted 30% of women in its new class, up from 12% last year. The institution even went as far as to release these data to the media since it thought the increase was so important. Director of the B-school Debashish Chatterjee stated, "We want more female students as they often make good managers."

The importance of candidates' prior academic performance was boosted by IIM-K. To assess their linguistic and interpersonal skills, candidates for the interview were required to prepare an essay. According to Chatterjee, the admissions committee had specific instructions on what to look for, including social skills, leadership potential, and language proficiency. We are delighted to approach things differently because a future manager needs to be more effective than just answering questions on a test.

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In fact, this notion appears to be supported by the experience of a well-regarded engineering school. In the academic year 2005–2006, the Birla Institute of Technology and Science (BITS), Pilani, launched a competitive exam. Prior to that, admission to the school was based on class XII scores. Just before the exam was introduced in 2004–05, 41% of the class was made up of women. Women's percentage in the class decreased to 15% once the exam was introduced. Women now make up a significantly smaller portion of the student body at a school that was previously moving closer to gender parity. According to BITS Pilani, fewer women may have been admitted to seats due to the competitive exam itself.

Many others disagree, though, given how well women perform on entrance examinations for the fields of law and medicine. 1,073 applicants passed the 2009 common law admission test, which was required to secure undergraduate admission to 11 national law schools. 514 of them were women. In other words, nearly half of the seats were won by women who wanted to practise law.

The inability to get into an engineering programme is attributed more to social conditioning than math, according to test preparation businesses that have worked with female candidates. According to Raja Mitra, chief operating officer of Aakash Educational Services Ltd, a test preparation organisation that specialises in coaching for medical admission exams, "From an Indian perspective, the social role is considerably more significant than a cognitive one." It is more esteemed to be a (female) doctor.

The few women who manage to get past the admission restrictions claim that the struggle is psychological. "I don't see why ladies wouldn't want to take the CAT exam. It's not that difficult," said Urvashi Gupta, a 21-year-old undergraduate student at Delhi University who will be attending IIM-A.

SubQuestion No : 18

Q.18 **According to the passage, why is there less number of women participating in engineering programmes?**

Ans ✔️ 1. Significance of social role over the cognitive role of women.

❌ 2. Lack of access to money and resources for women.

❌ 3. Lack of linguistic and interpersonal skills among women.

❌ 4. Lack of quantitative attitude among all the women.

Comprehension:

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SubQuestion No : 19

Q.19 **Identify the most appropriate summary of the passage.**

Ans ✗ 1. Though there is considerable participation of women at IIT JEE stage due to a lack of qualitative attitude women are behind men.

✓ 2. Due to social conditioning and the importance of social roles over cognitive roles, women are behind men in enrolment in engineering programmes.

✗ 3. Women are behind men in excess of IIM classrooms because of a lack of interpersonal skills.

✗ 4. Gender discrimination leads to women being inferior to men in nearly all spheres, no matter whether it is education or any other field.

Question ID : **630680204152**
Option 1 ID : **630680791744**
Option 2 ID : **630680791746**
Option 3 ID : **630680791743**
Option 4 ID : **630680791745**

Comprehension:

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SubQuestion No : 20

Q.20 **What was the increase in the percentage of women participation in IIM Kozhikode classroom?**

Ans   ✗ 1. 30%

   ✗ 2. 12%

   ✓ 3. 18%

   ✗ 4. 26%

Question ID : **630680204149**
Option 1 ID : **630680791731**
Option 2 ID : **630680791732**
Option 3 ID : **630680791733**
Option 4 ID : **630680791734**

Section : **Hindi Language and Comprehension**

Q.1 उचित क्रिया विशेषण से वाक्य पूर्ण करें –
अनिल ने मोहन को _____ धक्का दिया।

Ans ✗ 1. जैसे

✓ 2. ज़ोर-से

✗ 3. तनिक

✗ 4. तेज़ी –से

Question ID : **63068055377**
Option 1 ID : **630680213528**
Option 2 ID : **630680213527**
Option 3 ID : **630680213529**
Option 4 ID : **630680213526**

Q.2 'भारत एक <u>जनातातिक</u> देश है | वाक्य में रेखांकित शब्द की सही वर्तनी है -

Ans ✗ 1. जानतांत्रिक

✗ 2. जनतात्रिक

✗ 3. जानातांत्रिक

✓ 4. जनतांत्रिक

Question ID : **63068086023**
Option 1 ID : **630680333541**
Option 2 ID : **630680333543**
Option 3 ID : **630680333540**
Option 4 ID : **630680333542**

Q.3 जैसे-जैसे मनुष्य विज्ञान की ओर बढ़ता गया उसने प्रकृति का दोहन किया और उसे बुरी तरह से नुकसान पहुंचाया।प्रस्तुत वाक्य के लिए सार्थक शब्द चुनिए।

Ans ✗ 1. वरदान

✗ 2. लाभ

✗ 3. लालच

✓ 4. अभिशाप

Question ID : **63068064805**
Option 1 ID : **630680250188**
Option 2 ID : **630680250187**
Option 3 ID : **630680250186**
Option 4 ID : **630680250189**

Q.4 लोकोक्ति का अर्थ बतावें और उत्तर के रूप में सही विकल्प चुनें।

आसमान से गिरा खजूर पर अटका

Ans ✗ 1. मुसीबत से निकलना कठिन होता है।

✗ 2. आसमान से गिरना खतरनाक है।

✓ 3. एक मुसबीत से निकलकर दूसरी मुसीबत में पड़ना

✗ 4. मुसीबत से निकलना चाहिए।

Question ID : 630680135414
Option 1 ID : 630680524421
Option 2 ID : 630680524420
Option 3 ID : 630680524419
Option 4 ID : 630680524418

Q.5 निम्नलिखित रिक्त स्थान की पूर्ति उचित क्रिया शब्द के माध्यम से करें।
बच्चे पार्क में _____ रहे हैं।

Ans ✗ 1. खाना

✓ 2. खेल

✗ 3. रोटी

✗ 4. कपड़ा

Question ID : 630680192668
Option 1 ID : 630680747218
Option 2 ID : 630680747217
Option 3 ID : 630680747219
Option 4 ID : 630680747220

Q.6 निम्नलिखित वाक्य को उचित क्रम में लिखें।

मिठाइयों में गुलाबजामुन हमारी दुकान की और कलाकंद बहुत बिकता है।

Ans ✗ 1. कलाकंद बहुत हमारी दुकान की मिठाइयों में गुलाबजामुन और बिकता है।

✗ 2. गुलाबजामुन और कलाकंद हमारी दुकान की मिठाइयों में बिकता बहुत है।

✓ 3. हमारी दुकान की मिठाइयों में गुलाबजामुन और कलाकंद बहुत बिकता है।

✗ 4. मिठाइयों में गुलाबजामुन और कलाकंद हमारी दुकान की बहुत बिकता है।

Question ID : 630680553883
Option 1 ID : 6306802165388
Option 2 ID : 6306802165389
Option 3 ID : 6306802165386
Option 4 ID : 6306802165387

Q.7 'संध्या और रात के बीच का समय' के लिए इनमें से सार्थक शब्द कौन-सा है?

Ans ✓ 1. गोधूलि

✗ 2. सायंकाल

✗ 3. पूर्ववर्ती रात्रि

✗ 4. अपराह्न

Question ID : 630680155342
Option 1 ID : 630680601111
Option 2 ID : 630680601108
Option 3 ID : 630680601110
Option 4 ID : 630680601109

Q.8 सही पदक्रम में व्यवस्थित वाक्य का चयन करें -

Ans ✗ 1. वहाँ बहुत से उड़ते और चरते हुए पशु और पक्षी दिखाई दिए।

✗ 2. वहाँ बहुत से पशु और पक्षी उड़ते और चरते हुए दिखाई दिए।

✅ 3. वहाँ बहुत से पशु और पक्षी चरते और उड़ते हुए दिखाई दिए।

✗ 4. बहुत से पशु और पक्षी उड़ते और चरते हुए वहाँ दिखाई दिए।

Question ID : 630680816398
Option 1 ID : 6306803197871
Option 2 ID : 6306803197870
Option 3 ID : 6306803197873
Option 4 ID : 6306803197872

Q.9 शब्द युग्मों से निर्मित निम्न वाक्यों में से अर्थ के आधार पर अशुद्धि वाले विकल्प का चयन कीजिए--

Ans ✗ 1. यह मेरा <u>अनुमान</u> है कि आज वह अवश्य आगरा गया होगा।

✗ 2. नेता जी तो जनता के <u>अनुमान</u> से भी कहीं अधिक भ्रष्ट निकले।

✅ 3. पुराने ज़माने में हकीम रोगी की नब्ज़ देखकर ही रोग का <u>प्राक्कलन</u> कर लेते थे।

✗ 4. कार्य को प्रारम्भ करने से पहले <u>प्राक्कलन</u> बनाने से खर्चा कम हो सकता है।

Question ID : 630680762776
Option 1 ID : 6306802989704
Option 2 ID : 6306802989706
Option 3 ID : 6306802989705
Option 4 ID : 6306802989707

Q.10 उचित क्रिया विशेषण से वाक्य पूर्ण करें –

जब परिश्रम ही नहीं तो विद्या _____ से।

Ans ✗ 1. क्यों

✗ 2. कैसे

✗ 3. किधर

✅ 4. कहाँ

Question ID : 63068055376
Option 1 ID : 630680213524
Option 2 ID : 630680213522
Option 3 ID : 630680213525
Option 4 ID : 630680213523

Q.11 अमन सामान का बोरा _____। - रिक्त स्थान के लिए उचित क्रिया है-

Ans ✗ 1. उठाते हैं

✗ 2. उठ है

✅ 3. उठाता है

✗ 4. उठा है

Question ID : 630680337462
Option 1 ID : 6306801312569
Option 2 ID : 6306801312570
Option 3 ID : 6306801312571
Option 4 ID : 6306801312572

Q.12 इति का विलोम शब्द बताएं

Ans   ✖ 1. अंत

     ✖ 2. ये सभी

     ✖ 3. समाप्त

     ✔ 4. अथ

Question ID : **63068065710**
Option 1 ID : **630680253795**
Option 2 ID : **630680253797**
Option 3 ID : **630680253794**
Option 4 ID : **630680253796**

Q.13 'जयचंद होना' मुहावरे का अर्थ है -

Ans   ✖ 1. अपमानित होना

     ✔ 2. गद्दार होना

     ✖ 3. पराजित होना

     ✖ 4. बर्बाद होना

Question ID : **630680125676**
Option 1 ID : **630680487362**
Option 2 ID : **630680487363**
Option 3 ID : **630680487365**
Option 4 ID : **630680487364**

Q.14 'मेधावी छात्रों का भविष्य <u>उजवल</u> होता है' वाक्य में रेखांकित शब्द की सही वर्तनी है -

Ans   ✔ 1. उज्ज्वल

     ✖ 2. उज्विल

     ✖ 3. उज्जवल

     ✖ 4. उज्वल

Question ID : **63068086027**
Option 1 ID : **630680333559**
Option 2 ID : **630680333557**
Option 3 ID : **630680333558**
Option 4 ID : **630680333556**

Q.15 दिए गए विकल्पों में से सर्वाधिक उपयुक्त विशेषण शब्द चुनकर वाक्य पूरा कीजिए-
गणित का प्रश्न-पत्र_____होने के कारण किसी विद्यार्थी से हल नहीं हुआ।

Ans   ✖ 1. खराब

     ✖ 2. बेकार

     ✔ 3. कठिन

     ✖ 4. गंदा

Question ID : **63068085021**
Option 1 ID : **630680329589**
Option 2 ID : **630680329591**
Option 3 ID : **630680329588**
Option 4 ID : **630680329590**

Comprehension:

बेरोजगारी-शिक्षित बेरोजगारी- एक अभिशाप है, वह चैन से नहीं रहने देती। युवावर्ग-ग्रामीण और शहरी दोनों ही इसके शिकार हैं। आज प्रत्येक शिक्षित बेरोजगार युवक का आत्मविश्वास लड़खड़ा रहा है, उसका चिंतन, उसकी ऊर्जा और उसका साहस एक असहाय दशा को अनुभव कर रहा है। उसकी सारी संवेदना आर्थिक कठिनाइयों तक सीमित होकर रह गयी है। वह हताश हैं, उसमें असंतोष की भावना गहरा रही है। एक विद्रोह उसके मस्तिष्क में आड़ोलन कर रहा है। और इस सब का सामयिक लाभ दल बन्दी एवं स्वार्थों में लिप्त राजनीतिक ले रहे हैं- उसे बरगला कर, उसे झूठा प्रलोभन देकर। सामाजिक, राजनैतिक सदाचरण से आवद्ध परिवेश का पूर्णतः सम्प्रति अभाव है।

आज शिक्षा के मानदण्ड लड़खड़ा गये हैं। कक्षा बहिष्कार, हड़ताल, अनुशासन हीनता इन्हें विशेष स्थान शिक्षालयों में मिल रहा है, जिसकी जिम्मेदारी न केवल छात्रवर्ग पर है अपितु पूरी व्यवस्था ही इसके प्रति' Accountable' है। शिक्षा की सोद्देश्यता पर प्रश्न चिन्ह लगा है। वह एक भटकाव के दौर से गुजर रही है। कोई भी छात्र कैसे सामाजिक स्थितियों का विश्लेषण कर अपने कर्तव्य का निर्वहन कर सके-शिक्षा जगत के समक्ष अनुत्तरित यक्ष - प्रश्न है। आज की वर्तमान शिक्षा, पद्धति क्या उन्हें विश्वास दिला सकने में समर्थ है कि विद्यार्थी स्वयं को दहेज, नग्नशोषण एवं समाज में व्याप्त आर्थिक विषमता जैसी लाइलाज बीमारियों के विरूद्ध खड़ा रख सके।"

SubQuestion No : 16

Q.16 आज शिक्षा के मानदण्ड क्या हो गये हैं ?

Ans ✗ 1. शिक्षा के मानदण्ड निम्न हो गये हैं।

✓ 2. शिक्षा के मानदण्ड लड़खड़ा गये हैं।

✗ 3. शिक्षा के मानदण्ड उत्तम हो गये है।

✗ 4. शिक्षा के मानदण्ड स्थिर हैं।

Question ID : 630680138280
Option 1 ID : 630680535368
Option 2 ID : 630680535369
Option 3 ID : 630680535366
Option 4 ID : 630680535367

Comprehension:

बेरोजगारी-शिक्षित बेरोजगारी- एक अभिशाप है, वह चैन से नहीं रहने देती। युवावर्ग-ग्रामीण और शहरी दोनों ही इसके शिकार हैं। आज प्रत्येक शिक्षित बेरोजगार युवक का आत्मविश्वास लड़खड़ा रहा है, उसका चिंतन, उसकी ऊर्जा और उसका साहस एक असहाय दशा को अनुभव कर रहा है। उसकी सारी संवेदना आर्थिक कठिनाइयों तक सीमित होकर रह गयी है। वह हताश हैं, उसमें असंतोष की भावना गहरा रही है। एक विद्रोह उसके मस्तिष्क में आड़ोलन कर रहा है। और इस सब का सामयिक लाभ दल बन्दी एवं स्वार्थों में लिप्त राजनीतिक ले रहे हैं- उसे बरगला कर, उसे झूठा प्रलोभन देकर। सामाजिक, राजनैतिक सदाचरण से आवद्ध परिवेश का पूर्णतः सम्प्रति अभाव है।

आज शिक्षा के मानदण्ड लड़खड़ा गये हैं। कक्षा बहिष्कार, हड़ताल, अनुशासन हीनता इन्हें विशेष स्थान शिक्षालयों में मिल रहा है, जिसकी जिम्मेदारी न केवल छात्रवर्ग पर है अपितु पूरी व्यवस्था ही इसके प्रति' Accountable' है। शिक्षा की सोद्देश्यता पर प्रश्न चिन्ह लगा है। वह एक भटकाव के दौर से गुजर रही है। कोई भी छात्र कैसे सामाजिक स्थितियों का विश्लेषण कर अपने कर्तव्य का निर्वहन कर सके-शिक्षा जगत के समक्ष अनुत्तरित यक्ष - प्रश्न है। आज की वर्तमान शिक्षा, पद्धति क्या उन्हें विश्वास दिला सकने में समर्थ है कि विद्यार्थी स्वयं को दहेज, नग्नशोषण एवं समाज में व्याप्त आर्थिक विषमता जैसी लाइलाज बीमारियों के विरूद्ध खड़ा रख सके।"

SubQuestion No : 17

Q.17 शिक्षित बेरोजगारी क्या है ?

Ans ✗ 1. शिक्षित बेरोजगार अपना समय काट लेते है।

✗ 2. शिक्षित बेरोजगारी आरामदायक जिंदगी है।

✗ 3. बेरोजगारों को कुछ नहीं करना पड़ता है।

✓ 4. शिक्षित बेरोजगारी एक अभिशाप है।

Question ID : 630680138277
Option 1 ID : 630680535357
Option 2 ID : 630680535354
Option 3 ID : 630680535356
Option 4 ID : 630680535355

Comprehension:

बेरोजगारी-शिक्षित बेरोजगारी- एक अभिशाप है, वह चैन से नहीं रहने देती। युवावर्ग-ग्रामीण और शहरी दोनों ही इसके शिकार हैं। आज प्रत्येक शिक्षित बेरोजगार युवक का आत्मविश्वास लड़खड़ा रहा है, उसका चिंतन, उसकी ऊर्जा और उसका साहस एक असहाय दशा को अनुभव कर रहा है। उसकी सारी संवेदना आर्थिक कठिनाइयों तक सीमित होकर रह गयी है। वह हताश हैं, उसमें असंतोष की भावना गहरा रही है। एक विद्रोह उसके मस्तिष्क में आड़ोलन कर रहा है। और इस सब का सामयिक लाभ दल बन्दी एवं स्वार्थों में लिप्त राजनीतिक ले रहे हैं- उसे बरगला कर, उसे झूठा प्रलोभन देकर। सामाजिक, राजनैतिक सदाचरण से आवद्ध परिवेश का पूर्णतः सम्प्रति अभाव है।

आज शिक्षा के मानदण्ड लड़खड़ा गये हैं। कक्षा बहिष्कार, हड़ताल, अनुशासन हीनता इन्हें विशेष स्थान शिक्षालयों में मिल रहा है, जिसकी जिम्मेदारी न केवल छात्रवर्ग पर है अपितु पूरी व्यवस्था ही इसके प्रति' Accountable' है। शिक्षा की सोद्देश्यता पर प्रश्न चिन्ह लगा है। वह एक भटकाव के दौर से गुजर रही है। कोई भी छात्र कैसे सामाजिक स्थितियों का विश्लेषण कर अपने कर्तव्य का निर्वहन कर सके-शिक्षा जगत के समक्ष अनुत्तरित यक्ष - प्रश्न है। आज की वर्तमान शिक्षा, पद्धति क्या उन्हें विश्वास दिला सकने में समर्थ है कि विद्यार्थी स्वयं को दहेज, नग्नशोषण एवं समाज में व्याप्त आर्थिक विषमता जैसी लाइलाज बीमारियों के विरूद्ध खड़ा रख सके।"

SubQuestion No : 18

Q.18 शिक्षा की सोद्देश्यता पर क्या हो गया है ?

Ans ✗ 1. सोद्देश्यता पर कोई प्रश्न नहीं उठ रहा है।

✗ 2. शिक्षा की सोद्देश्यता अच्छी लग रही है।

✗ 3. सोद्देश्यता अपनी जगह पर कायम है।

✔ 4. शिक्षा की सोद्देश्यता पर प्रश्न चिह्न लग गया है।

Question ID : 630680138281
Option 1 ID : 630680535373
Option 2 ID : 630680535371
Option 3 ID : 630680535372
Option 4 ID : 630680535370

Comprehension:

बेरोजगारी-शिक्षित बेरोजगारी- एक अभिशाप है, वह चैन से नहीं रहने देती। युवावर्ग-ग्रामीण और शहरी दोनों ही इसके शिकार हैं। आज प्रत्येक शिक्षित बेरोजगार युवक का आत्मविश्वास लड़खड़ा रहा है, उसका चिंतन, उसकी ऊर्जा और उसका साहस एक असहाय दशा को अनुभव कर रहा है। उसकी सारी संवेदना आर्थिक कठिनाइयों तक सीमित होकर रह गयी है। वह हताश हैं, उसमें असंतोष की भावना गहरा रही है। एक विद्रोह उसके मस्तिष्क में आड़ोलन कर रहा है। और इस सब का सामयिक लाभ दल बन्दी एवं स्वार्थों में लिप्त राजनीतिक ले रहे हैं- उसे बरगला कर, उसे झूठा प्रलोभन देकर। सामाजिक, राजनैतिक सदाचरण से आवद्ध परिवेश का पूर्णतः सम्प्रति अभाव है।

आज शिक्षा के मानदण्ड लड़खड़ा गये हैं। कक्षा बहिष्कार, हड़ताल, अनुशासन हीनता इन्हें विशेष स्थान शिक्षालयों में मिल रहा है, जिसकी जिम्मेदारी न केवल छात्रवर्ग पर है अपितु पूरी व्यवस्था ही इसके प्रति' Accountable' है। शिक्षा की सोद्देश्यता पर प्रश्न चिन्ह लगा है। वह एक भटकाव के दौर से गुजर रही है। कोई भी छात्र कैसे सामाजिक स्थितियों का विश्लेषण कर अपने कर्तव्य का निर्वहन कर सके-शिक्षा जगत के समक्ष अनुत्तरित यक्ष - प्रश्न है। आज की वर्तमान शिक्षा, पद्धति क्या उन्हें विश्वास दिला सकने में समर्थ है कि विद्यार्थी स्वयं को दहेज, नग्नशोषण एवं समाज में व्याप्त आर्थिक विषमता जैसी लाइलाज बीमारियों के विरूद्ध खड़ा रख सके।"

SubQuestion No : 19

Q.19 शिक्षित बेरोजगारों में कैसी भावना गहरा रही है ?

Ans ✗ 1. उनमें थोड़ी संतोष की भावना आयी है।

✗ 2. वे परिस्थिति का दास बन गए है।

✔ 3. उनमें असंतोष की भावना गहरा रही है।

✗ 4. वे संतोषी हो गये हैं।

Question ID : 630680138279
Option 1 ID : 630680535362
Option 2 ID : 630680535365
Option 3 ID : 630680535363
Option 4 ID : 630680535364

Comprehension:

बेरोजगारी-शिक्षित बेरोजगारी- एक अभिशाप है, वह चैन से नहीं रहने देती। युवावर्ग-ग्रामीण और शहरी दोनों ही इसके शिकार हैं। आज प्रत्येक शिक्षित बेरोजगार युवक का आत्मविश्वास लड़खड़ा रहा है, उसका चिंतन, उसकी ऊर्जा और उसका साहस एक असहाय दशा को अनुभव कर रहा है। उसकी सारी संवेदना आर्थिक कठिनाइयों तक सीमित होकर रह गयी है। वह हताश हैं, उसमें असंतोष की भावना गहरा रही है। एक विद्रोह उसके मस्तिष्क में आड़ोलन कर रहा है। और इस सब का सामयिक लाभ दल बन्दी एवं स्वार्थों में लिप्त राजनीतिक ले रहे हैं- उसे बरगला कर, उसे झूठा प्रलोभन देकर। सामाजिक, राजनैतिक सदाचरण से आवद्ध परिवेश का पूर्णतः सम्प्रति अभाव है।

आज शिक्षा के मानदण्ड लड़खड़ा गये हैं। कक्षा बहिष्कार, हड़ताल, अनुशासन हीनता इन्हें विशेष स्थान शिक्षालयों में मिल रहा है, जिसकी जिम्मेदारी न केवल छात्रवर्ग पर है अपितु पूरी व्यवस्था ही इसके प्रति' Accountable' है। शिक्षा की सोद्देश्यता पर प्रश्न चिन्ह लगा है। वह एक भटकाव के दौर से गुजर रही है। कोई भी छात्र कैसे सामाजिक स्थितियों का विश्लेषण कर अपने कर्तव्य का निर्वहन कर सके-शिक्षा जगत के समक्ष अनुत्तरित यक्ष - प्रश्न है। आज की वर्तमान शिक्षा, पद्धति क्या उन्हें विश्वास दिला सकने में समर्थ है कि विद्यार्थी स्वयं को दहेज, नग्नशोषण एवं समाज में व्याप्त आर्थिक विषमता जैसी लाइलाज बीमारियों के विरूद्ध खड़ा रख सके।"

SubQuestion No : 20

Q.20 आज शिक्षित बेरोजगार युवक के साथ क्या हो रहा है ?

Ans ✅ 1. उनका आत्मविश्वास लड़खड़ा रहा है।

❌ 2. उनका विश्वास बढ़ रहा है।

❌ 3. उनका आत्मविश्वास थोड़ा आगे बढ़ रहा है।

❌ 4. उनके विश्वास पर कोई असर नहीं पड़ रहा है।

Question ID : 630680138278
Option 1 ID : 630680535360
Option 2 ID : 630680535358
Option 3 ID : 630680535361
Option 4 ID : 630680535359

Section : Discipline1

Q.1 Any flux which completes its path through the air or the medium surrounding the magnetic circuit instead of completing it through the core and air gap is called:

Ans ❌ 1. useful flux

❌ 2. linkage flux

✅ 3. leakage flux

❌ 4. fringing effect

Question ID : 630680340691
Option 1 ID : 6306801325206
Option 2 ID : 6306801325207
Option 3 ID : 6306801325205
Option 4 ID : 6306801325208

Q.2 Identify the INCORRECT statement about profile levelling.

Ans ❌ 1. It is useful for projects like construction and design of sewers, pipelines, highways, and railways to determine cut and fill.

❌ 2. Profile levelling uses the principle of differential levelling.

✅ 3. Profile levelling helps to find the capacity of a reservoir.

❌ 4. A plot of the horizontal distances on the horizontal axis with corresponding levels on the vertical axis are drawn in plotting the profile.

Question ID : 630680121680
Option 1 ID : 630680471671
Option 2 ID : 630680471670
Option 3 ID : 630680471673
Option 4 ID : 630680471672

Q.3 The amount of heat required to cause phase change in the unit mass of a substance at a constant temperature and pressure is called:

Ans ✗ 1. specific heat

✗ 2. sensible heat

✓ 3. latent heat

✗ 4. total heat

Question ID : **630680147651**
Option 1 ID : **630680571343**
Option 2 ID : **630680571345**
Option 3 ID : **630680571342**
Option 4 ID : **630680571344**

Q.4 The inverse Compton shift is used in:

Ans ✗ 1. the specific magnetic hysteresis loop

✓ 2. astrophysics

✗ 3. radiobiology

✗ 4. gamma rays scattering

Question ID : **630680876313**
Option 1 ID : **6306803432021**
Option 2 ID : **6306803432020**
Option 3 ID : **6306803432019**
Option 4 ID : **6306803432022**

Q.5 Which of the following is NOT a function of the foundation?

Ans ✓ 1. Causing non-uniform distribution of load to prevent cracking.

✗ 2. Providing a hard and level surface for construction.

✗ 3. Distributing load to a larger area to reduce load intensity.

✗ 4. Providing lateral stability against wind and earthquake loads.

Question ID : **630680876234**
Option 1 ID : **6306803431705**
Option 2 ID : **6306803431706**
Option 3 ID : **6306803431703**
Option 4 ID : **6306803431704**

Q.6 As per IRC, the minimum value of lateral friction coefficient for design of the super-elevation on highways is:

Ans ✗ 1. 0.35

✓ 2. 0.15

✗ 3. 0.2

✗ 4. 0.25

Question ID : **630680157908**
Option 1 ID : **630680611163**
Option 2 ID : **630680611160**
Option 3 ID : **630680611161**
Option 4 ID : **630680611162**

Q.7 The estimated cost for a 2.5 cm cement concrete flooring of an octagonal silo having an internal side of 5 m at the rate of ₹100 per m^2 with 5% overhead charges is _____.

Ans

✗ 1. ₹3,200

✗ 2. ₹32,000

✔ 3. ₹12,680

✗ 4. ₹1,268

Question ID : **63068099208**
Option 1 ID : **630680385537**
Option 2 ID : **630680385539**
Option 3 ID : **630680385538**
Option 4 ID : **630680385536**

Q.8 Which of the following is/are the advantage/s of providing tile drains in agricultural land from the given statements?
A. Removes the free gravity water that is not directly available to the plants.
B. Decreases air circulation in soil.
C. Increases soil erosion. A well-drained soil has less capacity to hold rainfall, resulting in less runoff, therefore increasing the soil erosion.
D. Decreases bacterial activity in the soil.

Ans

✗ 1. Only C
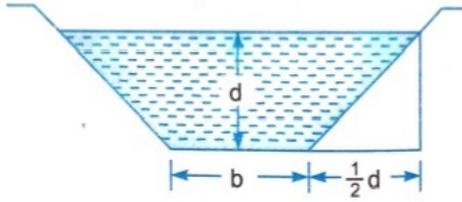
✔ 2. Only A

✗ 3. A, B, and D

✗ 4. A and D

Question ID : **630680111662**
Option 1 ID : **630680432382**
Option 2 ID : **630680432383**
Option 3 ID : **630680432385**
Option 4 ID : **630680432384**

Q.9 Upon applying reverse bias to a p-n junction, the width of the depletion region _____.

Ans

✔ 1. increases

✗ 2. remains the same

✗ 3. Biasing of the p-n junction and width of the depletion region are independent of each other.

✗ 4. decreases

Question ID : **630680361506**
Option 1 ID : **6306801407870**
Option 2 ID : **6306801407871**
Option 3 ID : **6306801407872**
Option 4 ID : **6306801407869**

Q.10 A trapezoidal channel has side slopes of 1H and 2V and slope of bed 1 in 1000 as shown in the given figure. Calculate the discharge of the most economical section, if Chezy's constant = 60, area of most economical trapezoidal section = 40 m^2 and d = 4.80 m.

Ans
✗ 1. 98.65 m^3/sec

✗ 2. 175.64 m^3/sec

✗ 3. 166.28 m^3/sec

✓ 4. 117.58 m^3/sec

Question ID : **630680103438**
Option 1 ID : **630680401995**
Option 2 ID : **630680401998**
Option 3 ID : **630680401997**
Option 4 ID : **630680401996**

Q.11 The storm with a specified return period which is adopted for the estimation of design flood is called _____.

Ans
✗ 1. standard project flood

✗ 2. flood hydrograph

✗ 3. probable maximum precipitation

✓ 4. design storm

Question ID : **630680101130**
Option 1 ID : **630680393046**
Option 2 ID : **630680393047**
Option 3 ID : **630680393045**
Option 4 ID : **630680393044**

Q.12 A simply supported beam of uniform bending strength of length l, constant width w and varying depth d supports a load W at its centre in the first case. In the second case, everything remains the same but width w varies and depth d remains constant. In the first case and the second case, the expressions that indicate the variations in depth and width, respectively, are:

Ans
✗ 1. Parabolic and hyperbolic

✗ 2. Hyperbolic and parabolic

✓ 3. Parabolic and linear

✗ 4. Linear and parabolic

Question ID : **630680110579**
Option 1 ID : **630680428465**
Option 2 ID : **630680428464**
Option 3 ID : **630680428462**
Option 4 ID : **630680428463**

Q.13 Which of the following statements is/are true for budget provision in estimation and costing?

Statement 1:
Estimates decide whether the proposed plan matches the funds available or not.

Statement 2:
Estimates give an idea of the cost of the work; hence, its feasibility can be determined i.e. whether the project could be taken up with the available funds/budget or not.

Ans
✗ 1. Statement 1 is true, Statement 2 is false

✗ 2. Statement 1 is false, Statement 2 is true

✔ 3. Both Statement 1 and Statement 2 are true

✗ 4. Both Statement 1 and Statement 2 are false

Question ID : **630680211764**
Option 1 ID : **630680821205**
Option 2 ID : **630680821206**
Option 3 ID : **630680821203**
Option 4 ID : **630680821204**

Q.14 निम्नलिखित में से कौन-सी तकनीक नैनोस्केल कणों का उत्पादन करने के लिए उच्च-ऊर्जा पेषण का उपयोग करती है?

Ans
✔ 1. रासायनिक अपचयन (Chemical reduction)

✗ 2. सोलवोथर्मल विधि (Solvothermal method)

✗ 3. इलेक्ट्रोस्पिनिंग (Electrospinning)

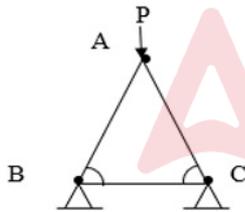✗ 4. हाइड्रोथर्मल विधि (Hydrothermal method)

Question ID : **630680876292**
Option 1 ID : **6306803431936**
Option 2 ID : **6306803431937**
Option 3 ID : **6306803431935**
Option 4 ID : **6306803431938**

Q.15 If A, B and C are hinged; joints B and C do not move relative to each other; P is the force applied at A and $\angle ABC = \angle ACB = 60°$, then force in the member BC is _____.

Ans
✗ 1. $P/(2\sqrt{2})$

✔ 2. zero

✗ 3. $P*(\sqrt{3}/2)$

✗ 4. $P*(2\sqrt{3})$

Question ID : **630680103970**
Option 1 ID : **630680404095**
Option 2 ID : **630680404096**
Option 3 ID : **630680404098**
Option 4 ID : **630680404097**

Q.16 In the complex plane, the angle between lines $1 + i\sqrt{3}$ and $-1 + i\sqrt{3}$ where $i = \sqrt{-1}$ is:

Ans

✗ 1. $\dfrac{\pi}{2}$

✗ 2. $\dfrac{\pi}{4}$

✓ 3. $\dfrac{\pi}{3}$

✗ 4. $\dfrac{\pi}{6}$

Question ID : **630680122141**
Option 1 ID : **630680473506**
Option 2 ID : **630680473508**
Option 3 ID : **630680473507**
Option 4 ID : **630680473509**

Q.17 सबसे ऊपरी प्रावार (mantle) का कठोर भाग, पर्पटी के साथ मिलकर _____ बनाता है।

Ans ✗ 1. ब्रायोस्फीयर

✗ 2. दुर्बलतामंडल

✗ 3. मध्यमंडल

✓ 4. स्थलमंडल

Question ID : **630680876188**
Option 1 ID : **6306803431520**
Option 2 ID : **6306803431519**
Option 3 ID : **6306803431522**
Option 4 ID : **6306803431521**

Q.18 निम्नलिखित में से किस नेटवर्क टोपोलॉजी में एक डिवाइस की विफलता से पूरे नेटवर्क के लिए संचार बाधित होने की संभावना होती है?

Ans ✗ 1. स्टार टोपोलॉजी

✗ 2. रिंग टोपोलॉजी

✓ 3. बस टोपोलोजी

✗ 4. मेश टोपोलॉजी

Question ID : **630680876186**
Option 1 ID : **6306803431513**
Option 2 ID : **6306803431512**
Option 3 ID : **6306803431511**
Option 4 ID : **6306803431514**

Q.19 The net inward flux and the net outward flux of a closed surface are $\emptyset_1$ and $\emptyset_2$, respectively $(\emptyset_2 > \emptyset_1)$. What is the charge enclosed inside the surface?

Ans ✓ 1. $-(\emptyset_1 - \emptyset_2)\varepsilon_0$

✗ 2. $(\emptyset_1 - \emptyset_2)\varepsilon_0$

✗ 3. $(\emptyset_1 + \emptyset_2)\varepsilon_0$

✗ 4. 0

Question ID : **630680876308**
Option 1 ID : **6306803432000**
Option 2 ID : **6306803432001**
Option 3 ID : **6306803432002**
Option 4 ID : **6306803431999**

Q.20 In an isometric drawing, the angle between the lower edge of the hexahedron and the horizontal line is always equal to _____.

Ans ✗ 1. 120 degrees

✗ 2. 90 degrees

✓ 3. 30 degrees

✗ 4. 45 degrees

Question ID : **630680876155**
Option 1 ID : **6306803431388**
Option 2 ID : **6306803431387**
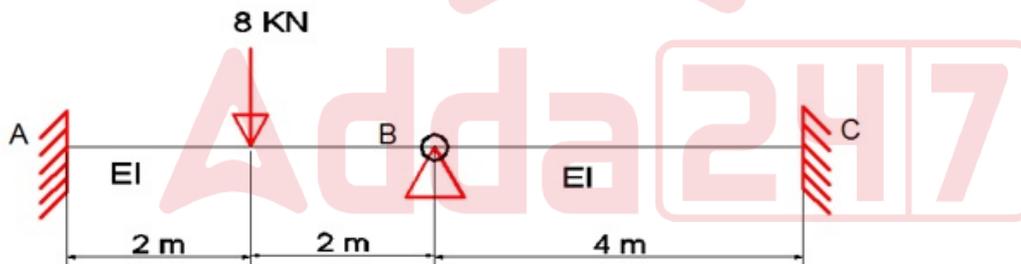Option 3 ID : **6306803431390**
Option 4 ID : **6306803431389**

Section : **Discipline2**

Q.1 Which type of chromatography typically uses silica gel or alumina as the stationary phase?

Ans ✗ 1. Gas chromatography

✗ 2. Column chromatography

✓ 3. Thin-layer chromatography

✗ 4. High-performance liquid chromatography (HPLC)

Question ID : **630680876276**
Option 1 ID : **6306803431871**
Option 2 ID : **6306803431874**
Option 3 ID : **6306803431872**
Option 4 ID : **6306803431873**

Q.2 From the given diagram, determine the slope at point B.

Ans ✗ 1. $\dfrac{4}{EI}$

✓ 2. $\dfrac{2}{EI}$

✗ 3. $\dfrac{1}{EI}$

✗ 4. $\dfrac{3}{EI}$

Question ID : **630680133172**
Option 1 ID : **630680515677**
Option 2 ID : **630680515675**
Option 3 ID : **630680515674**
Option 4 ID : **630680515676**

Q.3 Calculate the contact pressure of soil, if a square footing (4 m × 4 m) carrying a point load of 200 kN is placed on medium dense sand at 5 m.

Ans ✗ 1. 1.5 kN/m^2

✗ 2. 2.5 kN/m^2

✗ 3. 10.5 kN/m^2

✔ 4. 12.5 kN/m^2

Question ID : **630680116864**
Option 1 ID : **630680452744**
Option 2 ID : **630680452742**
Option 3 ID : **630680452743**
Option 4 ID : **630680452745**

Q.4 What is the binary equivalent of the hexadecimal number 3F?

Ans ✔ 1. 0011 1111

✗ 2. 0011 1110

✗ 3. 0101 1111

✗ 4. 0100 1111

Question ID : **630680876160**
Option 1 ID : **6306803431408**
Option 2 ID : **6306803431407**
Option 3 ID : **6306803431410**
Option 4 ID : **6306803431409**

Q.5 Calculate the wavelength of radiation emitted by an LED made up of a semiconducting material with the band gap energy of 3.2 eV.

Ans ✗ 1. 5.1 Å

✗ 2. 3.4 Å

✗ 3. 4.3 Å

✔ 4. 3.8 Å

Question ID : **630680876322**
Option 1 ID : **6306803432058**
Option 2 ID : **6306803432056**
Option 3 ID : **6306803432057**
Option 4 ID : **6306803432055**

Q.6 A maintenance management system (MMS), also known as pavement management system (PMS), is a system which facilitates maintenance planning and optimal allocation of resources. The main elements of a pavement management system does not cover _____.

Ans ✗ 1. the selection of intervention levels

✗ 2. a basic road data bank

✔ 3. the location of a pavement

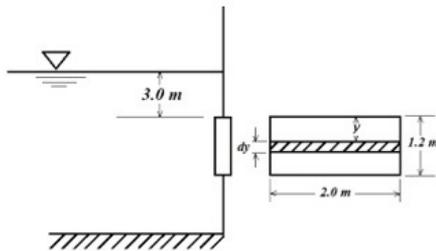✗ 4. the pavement performance model

Question ID : **630680114802**
Option 1 ID : **630680444577**
Option 2 ID : **630680444574**
Option 3 ID : **630680444575**
Option 4 ID : **630680444576**

Q.7 As per IS: 800-2007, structural steel elements in industrial structures exposed to corrosive fumes can be categorised into _____ environmental exposure condition.

Ans

✗ 1. extreme

✗ 2. moderate

✔ 3. very severe

✗ 4. severe

Question ID : **630680219853**
Option 1 ID : **630680853294**
Option 2 ID : **630680853291**
Option 3 ID : **630680853293**
Option 4 ID : **630680853292**

Q.8 A vertical rectangular gate has water on one side as shown in the following figure. Determine the total resultant force (in kN) acting on the gate. Specific weight of water is given as 9810 N/m³.

Ans

✗ 1. 63.57

✗ 2. 21.2

✔ 3. 84.76

✗ 4. 42.38

Question ID : **63068082844**
Option 1 ID : **630680321241**
Option 2 ID : **630680321243**
Option 3 ID : **630680321240**
Option 4 ID : **630680321242**

Q.9 Find the correct equation from the following options to describe the recession curve as per Barnes. Here, Q_0 and Q_t are the flows at times t_0 and t, respectively, K_r is the recession constant with values less than 1.

Ans

✗ 1. $Q_t = Q_0 \ k_r^{t_0 - t}$

✗ 2. $Q_t = Q_0 \ k_r^{t_0}$

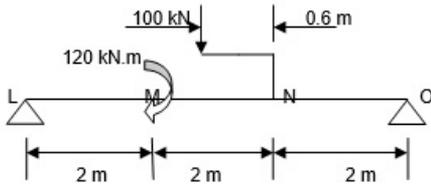✗ 3. $Q_t = Q_0 \ k_r^{t}$

✔ 4. $Q_t = Q_0 \ k_r^{t - t_0}$

Question ID : **630680136468**
Option 1 ID : **630680528503**
Option 2 ID : **630680528505**
Option 3 ID : **630680528502**
Option 4 ID : **630680528504**

Q.10 As per IS 456, under transient wind load, the lateral sway at the top of a building of height 'H' should NOT exceed:

Ans ✗ 1. H/300

✓ 2. H/500

✗ 3. H/400

✗ 4. H/200

Question ID : **630680206825**
Option 1 ID : **630680801900**
Option 2 ID : **630680801902**
Option 3 ID : **630680801901**
Option 4 ID : **630680801899**

Q.11 A simply supported beam is shown in the figure. Find the reactions at the supported ends. Take $EI = 100$ kN.m^2.

Ans ✗ 1. 76.66 kN, 76.66 kN

✗ 2. 76.66 kN, 23.33 kN

✗ 3. 23.33 kN, 23.33 kN

✓ 4. 23.33 kN, 76.66 kN

Question ID : **630680137600**
Option 1 ID : **630680532768**
Option 2 ID : **630680532767**
Option 3 ID : **630680532769**
Option 4 ID : **630680532766**

Q.12 The minimum graduation of a self-reading metric staff is:

Ans ✗ 1. 0.5 cm

✗ 2. 5 cm

✓ 3. 5 mm

✗ 4. 0.5 mm

Question ID : **630680121661**
Option 1 ID : **630680471596**
Option 2 ID : **630680471597**
Option 3 ID : **630680471595**
Option 4 ID : **630680471594**

Q.13 The actual cost of a work is known:

Ans ✗ 1. at beginning of the work

✗ 2. before starting of the work

✗ 3. after starting of the work

✓ 4. upon completion of the work

Question ID : **630680876217**
Option 1 ID : **6306803431635**
Option 2 ID : **6306803431637**
Option 3 ID : **6306803431638**
Option 4 ID : **6306803431636**

Q.14 When air expands from an initial state at pressure P_1 and volume V_1 to a final state until its volume is doubled (volume $= 2V_1$) following the law $pV^n = C$, then:

Ans ✗ 1. greater the n, greater the work obtained

✓ 2. work obtained is the greatest for n=0

✗ 3. smaller the n, smaller the work obtained

✗ 4. work obtained is the greatest for n=1.4

Question ID : **630680160633**
Option 1 ID : **630680621904**
Option 2 ID : **630680621906**
Option 3 ID : **630680621905**
Option 4 ID : **630680621907**

Q.15 What scale is used while measuring minute value 0.1 mm?

Ans ✓ 1. Diagonal scale

✗ 2. Comparative scale

✗ 3. Scale of chords

✗ 4. Plain scale

Question ID : **630680876138**
Option 1 ID : **6306803431320**
Option 2 ID : **6306803431321**
Option 3 ID : **6306803431322**
Option 4 ID : **6306803431319**

Q.16 Which of the following standards of the Bureau of Indian Standards sets earthquake-resistant design specifications for general provisions and buildings?

Ans ✓ 1. IS 1893 (Part 1): 2002

✗ 2. IS 1893 (Part 3): 2002

✗ 3. IS 1893 (Part 4): 2002

✗ 4. IS 1893 (Part 2): 2002

Question ID : **630680876122**
Option 1 ID : **6306803431255**
Option 2 ID : **6306803431257**
Option 3 ID : **6306803431258**
Option 4 ID : **6306803431256**

Q.17 Which of the following statements is INCORRECT regarding cold-rolled steel compared to hot-rolled steel?

Ans ✓ 1. For cold rolling, the metal should be at its re-crystallisation temperature.

✗ 2. Cold rolling increases yield strength.

✗ 3. Cold rolling increases hardness.

✗ 4. Cold rolling is cost effective.

Question ID : **630680121393**
Option 1 ID : **630680470533**
Option 2 ID : **630680470530**
Option 3 ID : **630680470531**
Option 4 ID : **630680470532**

Q.18 If the liquidity index of a soil sample is less than zero, then the soil is likely to behave like a:

Ans
✗ 1. viscous liquid

✗ 2. brittle

✔ 3. liquid

✗ 4. plastic

Question ID : **630680145683**
Option 1 ID : **630680563661**
Option 2 ID : **630680563660**
Option 3 ID : **630680563659**
Option 4 ID : **630680563658**

Q.19 Match the following sub-structures and their applications.

A. Strip foundation	1. 2 columns with different loads
B. Pier foundation	2. Heavy steel stanchion
C. Grillage foundation	3. Bridges
D. Trapezoidal footing	4. Load bearing wall

Ans
✗ 1. A-3, B-4, C-1, D-2

✔ 2. A-4, B-3, C-2, D-1

✗ 3. A-3, B-4, C-2, D-1

✗ 4. A-4, B-3, C-1, D-2

Question ID : **630680876239**
Option 1 ID : **6306803431726**
Option 2 ID : **6306803431723**
Option 3 ID : **6306803431725**
Option 4 ID : **6306803431724**

Q.20 Let x and y be two real variables such that x > 0 and xy = 1. Find the minimum value of x + 4y.

Ans
✗ 1. -2

✗ 2. $\frac{1}{2}$

✗ 3. 2

✔ 4. 4

Question ID : **630680133633**
Option 1 ID : **630680517474**
Option 2 ID : **630680517475**
Option 3 ID : **630680517477**
Option 4 ID : **630680517476**

Section : **Discipline3**

Q.1 Seven readings were taken with a level as 1.345, 1.525, 0.785, 1.105, 1.855, 2.005, and 1.985. If the instrument was shifted after the third and fifth readings, the readings recorded under the back sight column would be:

Ans ✗ 1. 0.785, 1.855, 1.985

✗ 2. 1.345, 0.785, 1.855

✓ 3. 1.345, 1.105, 2.005

✗ 4. 1.345, 1.105, 1.985

Question ID : **630680121671**
Option 1 ID : **630680471635**
Option 2 ID : **630680471636**
Option 3 ID : **630680471634**
Option 4 ID : **630680471637**

Q.2 Identify the correct relation between porosity (η) and void ratio (e).

Ans ✗ 1. $\eta = \dfrac{e}{1-e}$

✗ 2. $\eta = \dfrac{1-e}{e+1}$

✗ 3. $\eta = \dfrac{e+1}{1-e}$

✓ 4. $\eta = \dfrac{e}{e+1}$

Question ID : **630680133462**
Option 1 ID : **630680516823**
Option 2 ID : **630680516825**
Option 3 ID : **630680516824**
Option 4 ID : **630680516822**

Q.3 In a foundation, If the property line is near the column and isolated footing cannot be provided, _____ can be provided.

Ans ✗ 1. a strip footing

✓ 2. a strap footing

✗ 3. a raft footing

✗ 4. a spread footing

Question ID : **630680876237**
Option 1 ID : **6306803431715**
Option 2 ID : **6306803431716**
Option 3 ID : **6306803431717**
Option 4 ID : **6306803431718**

Q.4 What is the binary equivalent of the decimal number 25?

Ans ✓ 1. 11001

✗ 2. 11101

✗ 3. 10101

✗ 4. 11000

Question ID : **630680876159**
Option 1 ID : **6306803431403**
Option 2 ID : **6306803431405**
Option 3 ID : **6306803431404**
Option 4 ID : **6306803431406**

Q.5 The work done in causing a fluid of volume V to flow into or out of a control volume against pressure P is:

Ans ✗ 1. VdP

✗ 2. −VdP

✗ 3. PdV

✓ 4. PV

Question ID : **630680211729**
Option 1 ID : **630680821065**
Option 2 ID : **630680821066**
Option 3 ID : **630680821063**
Option 4 ID : **630680821064**

Q.6 What is the unit of measurement for manhole cover as per IS 1200?

Ans ✓ 1. Numbers

✗ 2. Cubic metre

✗ 3. Running metre

✗ 4. Square metre

Question ID : **630680339587**
Option 1 ID : **6306801320872**
Option 2 ID : **6306801320869**
Option 3 ID : **6306801320871**
Option 4 ID : **6306801320870**

Q.7 Determine the stopping distance required for an exit taxiway joining a runway and a parallel main taxiway. The total angle of turn is 35° and the maximum turn-off speed is 80 km/h. Take average deceleration rate as 1 m/s^2.

Ans ✗ 1. 271 m

✗ 2. 241 m

✗ 3. 261 m

✓ 4. 251 m

Question ID : **630680114832**
Option 1 ID : **630680444697**
Option 2 ID : **630680444695**
Option 3 ID : **630680444694**
Option 4 ID : **630680444696**

Q.8 The sonic velocity of a model and prototype are 1350 m/s and 303 m/s, respectively. If the Mach number for the model and prototype is 1.5, the velocity of fluid in the model and prototype are _____ and _____, respectively.

Ans ✓ 1. 2025 m/s; 454.5 m/s

✗ 2. 1350 m/s; 900 m/s

✗ 3. 454.5 m/s; 2025 m/s

✗ 4. 900 m/s; 1350 m/s

Question ID : **630680103417**
Option 1 ID : **630680401913**
Option 2 ID : **630680401914**
Option 3 ID : **630680401912**
Option 4 ID : **630680401911**

Q.9 The ordinates of 3 hour UH are given below.

Time (h)	0	3	6	9	12	15	18	21	24
Ordinates (Cubic meter per second)	0	12	28	18	15	10	7	4	0

Find the peak discharge in 6 hour UH.

Ans ✗ 1. $25 \, m^3/s$

✗ 2. $18 \, m^3/s$

✗ 3. $20 \, m^3/s$

✓ 4. $23 \, m^3/s$

Question ID : **630680136469**
Option 1 ID : **630680528506**
Option 2 ID : **630680528508**
Option 3 ID : **630680528509**
Option 4 ID : **630680528507**

Q.10 What is the primary principle behind volumetric analysis?

Ans ✗ 1. Colorimetry

✗ 2. Conductometry

✓ 3. Measurement of Volume

✗ 4. Spectrophotometry

Question ID : **630680876275**
Option 1 ID : **6306803431867**
Option 2 ID : **6306803431870**
Option 3 ID : **6306803431869**
Option 4 ID : **6306803431868**

Q.11 Consider the following statements with respect to lining of canals, and select the correct option.
Statement 1: Cement concrete lining is tough, durable, relatively impermeable and hydraulically efficient.
Statement 2: Curing is not required for soil cement lining if optimum moisture content is maintained.

Ans ✗ 1. Both statements are true

✓ 2. Statement 1 is true and statement 2 is false

✗ 3. Both statements are false

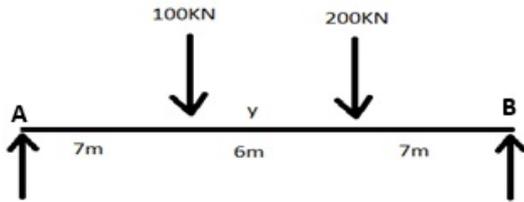✗ 4. Statement 1 is false and statement 2 is true

Question ID : **630680144462**
Option 1 ID : **630680558917**
Option 2 ID : **630680558914**
Option 3 ID : **630680558916**
Option 4 ID : **630680558915**

Q.12 According to IS 1893 (Part 1): 2002, the ductility factor is considered in order to estimate
_____.

Ans   ✗ 1. deformation compatibility

   ✗ 2. separation between the adjacent units

   ✗ 3. differential settlement of foundations

   ✓ 4. storey drift

Question ID : **630680876125**
Option 1 ID : **6306803431267**
Option 2 ID : **6306803431269**
Option 3 ID : **6306803431270**
Option 4 ID : **6306803431268**

Q.13 Determine the reactions at point A and point B for the given beam.

Ans   ✗ 1. Ra = 165 kN, Rb = 135 kN

   ✗ 2. Ra = 185 kN, Rb = 115 kN

   ✗ 3. Ra = 115 kN, Rb = 185 kN

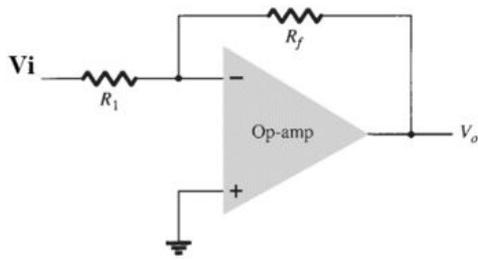   ✓ 4. Ra = 135 kN, Rb = 165 kN

Question ID : **63068082461**
Option 1 ID : **630680319884**
Option 2 ID : **630680319885**
Option 3 ID : **630680319887**
Option 4 ID : **630680319886**

Q.14 Which of the following chemicals is listed in IS 6313- 3 (2001) and used for soil treatment
to protect buildings from termites?

Ans   ✗ 1. aldrin

   ✗ 2. heptachlor

   ✗ 3. DDT

   ✓ 4. chlorpyrifos

Question ID : **630680211444**
Option 1 ID : **630680819923**
Option 2 ID : **630680819926**
Option 3 ID : **630680819925**
Option 4 ID : **630680819924**

Q.15 Determine the condition for the inverting amplifier shown below to work as a unity gain amplifier.

Ans ✗ 1. $R_F < R_1$

✓ 2. $R_F = R_1$

✗ 3. $R_F > R_1$

✗ 4. $R_1 = 0$

Question ID : 630680361492
Option 1 ID : 6306801407815
Option 2 ID : 6306801407813
Option 3 ID : 6306801407814
Option 4 ID : 6306801407816

Q.16 Area bounded by the curves $x = y^2$ and $y = x-2$ is

Ans ✗ 1. $\frac{7}{2}$ sq units

✓ 2. $\frac{9}{2}$ sq units

✗ 3. 4 sq units

✗ 4. 2 sq unit

Question ID : 630680139758
Option 1 ID : 630680541082
Option 2 ID : 630680541085
Option 3 ID : 630680541083
Option 4 ID : 630680541084

Q.17 Decaying remains of dead plants can cause _____ weathering.

Ans ✗ 1. bio-chemical

✗ 2. mechanical

✗ 3. physical

✓ 4. chemical

Question ID : 630680876202
Option 1 ID : 6306803431578
Option 2 ID : 6306803431575
Option 3 ID : 6306803431576
Option 4 ID : 6306803431577

Q.18 A beam in pure bending is subjected to equal and opposite couples and no shear force. Which type of shear stress is zero?

Ans   ✗ 1. Bending Stress

     ✗ 2. Longitudinal shear stress

     ✗ 3. Transverse shear stress

     ✓ 4. Transverse and longitudinal shear stresses

Question ID : **630680137580**
Option 1 ID : **630680532689**
Option 2 ID : **630680532687**
Option 3 ID : **630680532686**
Option 4 ID : **630680532688**

Q.19 A compression member is considered to be short if the slenderness ratio:

Ans   ✗ 1. $L_{ex}/D > 12$ and $L_{ey}/b > 12$

     ✗ 2. $L_{ex}/D > 12$ and $L_{ey}/b < 12$

     ✓ 3. $L_{ex}/D < 12$ and $L_{ey}/b < 12$

     ✗ 4. $L_{ex}/D < 12$ and $L_{ey}/b > 12$

Question ID : **630680206798**
Option 1 ID : **630680801791**
Option 2 ID : **630680801793**
Option 3 ID : **630680801794**
Option 4 ID : **630680801792**

Q.20 A cone is resting on its base on VP and the axis is parallel to HP. The shape of the front view, side view and top view are _____, respectively.

Ans   ✗ 1. circle, circle and ellipse

     ✓ 2. circle, triangle and triangle

     ✗ 3. circle, triangle and ellipse

     ✗ 4. ellipse, triangle and circle

Question ID : **630680876153**
Option 1 ID : **6306803431382**
Option 2 ID : **6306803431381**
Option 3 ID : **6306803431379**
Option 4 ID : **6306803431380**

Section : **Discipline4**

Q.1 _____ is used in surveying instruments to measure angles to the required accuracy.

Ans   ✗ 1. Comparative scale

     ✗ 2. Linear vernier

     ✗ 3. Digital vernier

     ✓ 4. Circular vernier

Question ID : **630680876139**
Option 1 ID : **6306803431324**
Option 2 ID : **6306803431323**
Option 3 ID : **6306803431326**
Option 4 ID : **6306803431325**

Q.2 Stone facing work in Ashlar masonry NOT exceeding 8 cm in thickness is considered as _____.

Ans ✗ 1. toothing

✓ 2. veneering

✗ 3. punching

✗ 4. facing

Question ID : **630680876241**
Option 1 ID : **6306803431734**
Option 2 ID : **6306803431731**
Option 3 ID : **6306803431733**
Option 4 ID : **6306803431732**

Q.3 If one fault block moves up-dip of the fault plane relative to other blocks, this type of fault is called _____.

Ans ✓ 1. reverse

✗ 2. normal

✗ 3. pivotal

✗ 4. strike-slip

Question ID : **630680876197**
Option 1 ID : **6306803431558**
Option 2 ID : **6306803431556**
Option 3 ID : **6306803431557**
Option 4 ID : **6306803431555**

Q.4 Slack of an event in PERT is _____.

Ans ✓ 1. Latest Allowable Time minus Early Expected Time

✗ 2. Early Expected Time minus Latest Allowable Time

✗ 3. Early Allowable Time minus Latest Expected Time

✗ 4. Latest Expected Time minus Early Allowable Time

Question ID : **630680121413**
Option 1 ID : **630680470610**
Option 2 ID : **630680470612**
Option 3 ID : **630680470611**
Option 4 ID : **630680470613**

Q.5 Select the correct order of colourwash preparation using the given processes.
A. Add colouring pigment.
B. Kept still for 24 hours.
C. Slaked fat lime is mixed with water.
D. Screened through a coarse cloth.

Ans ✓ 1. C-B-D-A

✗ 2. D-B-C-A

✗ 3. B-D-A-C

✗ 4. C-A-D-B

Question ID : **630680876267**
Option 1 ID : **6306803431835**
Option 2 ID : **6306803431838**
Option 3 ID : **6306803431836**
Option 4 ID : **6306803431837**

Q.6 Which of the following laws describes the capability of a liquid to flow through any porous media, like a rock?

Ans ✔ 1. Darcy's law

✗ 2. Coulomb's law

✗ 3. Stokes law

✗ 4. Poiseuille's law

Question ID : **63068099854**
Option 1 ID : **630680388112**
Option 2 ID : **630680388115**
Option 3 ID : **630680388113**
Option 4 ID : **630680388114**

Q.7 A plate girder is to be designed by post critical method, as per IS: 800-2007. It is designed such that the transverse stiffeners are provided at the supports only. The depth to web thickness ratio of the plate girder is 150. Which of the following options represents correctly, the expression to calculate the elastic critical shear stress of the web of the plate girder? Take Poisson's ratio μ = 0.3 and E = 2 × 10^5 N/mm^2

Ans

✔ 1. $\dfrac{5.35 \times \pi^2 \times 2 \times 10^5}{12 \times (1 - 0.3^2) \times 150^2}$

✗ 2. $\dfrac{5.35 \times \pi^2 \times 2 \times 10^5 \times 150^2}{12 \times (1 - 0.3^2)}$

✗ 3. $\dfrac{5.35 \times \pi^2 \times 2 \times 10^5}{12 \times (1 - 0.3) \times 150^2}$

✗ 4. $\dfrac{5.35 \times \pi^2 \times 2 \times 10^5 \times 150^2}{12 \times (1 - 0.3)}$

Question ID : **630680335171**
Option 1 ID : **6306801303901**
Option 2 ID : **6306801303903**
Option 3 ID : **6306801303902**
Option 4 ID : **6306801303904**

Q.8 Several defects develop in a flexible pavement which ultimately lead to the failure of the road to perform its intended purposes. Cause of defects in a flexible pavement is NOT due to_____.

Ans ✔ 1. inadequate curing of the concrete slab after construction

✗ 2. faulty or inadequate drainage system

✗ 3. poor quality of material used in construction

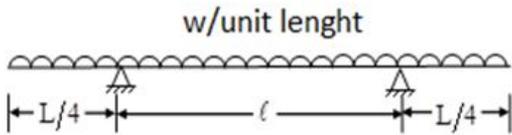✗ 4. poor compaction resulting in settlement of fill material in embankments

Question ID : **630680114797**
Option 1 ID : **630680444555**
Option 2 ID : **630680444556**
Option 3 ID : **630680444554**
Option 4 ID : **630680444557**

Q.9 Which term describes a small, specialised operating system used to control devices like routers, switches, and embedded systems?

Ans ✔ 1. Embedded operating system

✘ 2. Mobile operating system

✘ 3. Real-time operating system

✘ 4. Network operating system

Question ID : **630680876170**
Option 1 ID : **6306803431450**
Option 2 ID : **6306803431449**
Option 3 ID : **6306803431448**
Option 4 ID : **6306803431447**

Q.10 For the overhanging beam carrying distributed load, the correct diagram for the Shear Force Variation is:

w/unit lenght

$\leftarrow L/4 \rightarrow$ ℓ $\leftarrow L/4 \rightarrow$

Ans ✘ 1.

✘ 2.

✔ 3.

✘ 4.

Question ID : **630680121114**
Option 1 ID : **630680469420**
Option 2 ID : **630680469419**
Option 3 ID : **630680469418**
Option 4 ID : **630680469421**

Q.11 Two coils have self inductance of 5 mH and 20 mH, respectively. What will be the effective total inductance if the coils are connected in series opposition (Given that the mutual inductance between them is 0.5 mH)?

Ans ✘ 1. 23 mH

✘ 2. 26 mH

✘ 3. 25 mH

✔ 4. 24 mH

Question ID : **630680340728**
Option 1 ID : **6306801325353**
Option 2 ID : **6306801325356**
Option 3 ID : **6306801325355**
Option 4 ID : **6306801325354**

Q.12 For the axial load and combined biaxial bending moment in the iteration formula used by IS 456, α_n is based on P_u/P_{uz}, where P_{uz} is given by:

Ans ✗ 1. $P_{uz} = 0.40\ f_{ck}\ A_c + 0.75\ f_y\ A_{sc}$

✗ 2. $P_{uz} = 0.45\ f_{ck}\ A_c + 0.67\ f_y\ A_{sc}$

✗ 3. $P_{uz} = 0.40\ f_{ck}\ A_c + 0.67\ f_y\ A_{sc}$

✔ 4. $P_{uz} = 0.45\ f_{ck}\ A_c + 0.75\ f_y\ A_{sc}$

Question ID : **630680206804**
Option 1 ID : **630680801817**
Option 2 ID : **630680801816**
Option 3 ID : **630680801815**
Option 4 ID : **630680801818**

Q.13 For which of the given options does the following statement hold true?

It can be assumed to spread approximately at a slope of two (vertical) to one (horizontal). Thus, the vertical pressure at any depth 'z' below the soil surface can be determined approximately by constructing a frustum of pyramid (or cone) of depth 'z' and side slopes 2 : 1. The pressure distribution is assumed to be uniform on a horizontal plane at that depth.

Ans ✗ 1. Sixty degree distribution method

✗ 2. Contact pressure distribution method

✔ 3. 2 : 1 load distribution method

✗ 4. Equivalent point-load method

Question ID : **630680201881**
Option 1 ID : **630680782872**
Option 2 ID : **630680782871**
Option 3 ID : **630680782873**
Option 4 ID : **630680782874**

Q.14 Which of the following techniques is NOT commonly used in Gravimetric Analysis?

Ans ✗ 1. Filtration
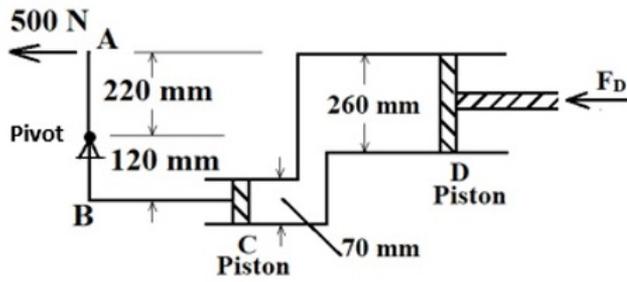
✗ 2. Precipitation

✗ 3. Digestion

✔ 4. Titration

Question ID : **630680876273**
Option 1 ID : **6306803431861**
Option 2 ID : **6306803431860**
Option 3 ID : **6306803431862**
Option 4 ID : **6306803431859**

Q.15 Half cubic of glycerine has mass of 17.4 kg. Determine its specific weight (in N/m^3), given 1 ft = 0.3048 m and acceleration due to gravity (g) = 9.81 m/s^2.

Ans ✗ 1. 3014

✗ 2. 18084

✔ 3. 12056

✗ 4. 6500

Question ID : **63068082836**
Option 1 ID : **630680321209**
Option 2 ID : **630680321211**
Option 3 ID : **630680321208**
Option 4 ID : **630680321210**

Q.16 A force of 500 N is exerted at A on the lever AB as shown in the figure. End B is connected to a piston which fits into a cylinder having a diameter of 70 mm. What force 'F' (in Newton) acts on the larger piston if the volume between C and D is filled with water?

Ans

✗ 1. 6323.15

✗ 2. 9484.7

✗ 3. 15175.5

✔ 4. 12646.3

Question ID : **630680120668**
Option 1 ID : **630680467646**
Option 2 ID : **630680467647**
Option 3 ID : **630680467649**
Option 4 ID : **630680467648**

Q.17 Identify the INCORRECT statement regarding magnetic meridian.

Ans

✗ 1. Magnetic meridian can be affected by any serious magnetic interference.

✔ 2. The direction is indicated by a freely suspended and balanced magnetic needle unaffected by local attractive forces.

✗ 3. Magnetic meridian through a point on the ground is the direction taken by a freely suspended magnetic needle placed at that point.

✗ 4. Direction of magnetic meridian through a point on the ground is constant.

Question ID : **630680121646**
Option 1 ID : **630680471535**
Option 2 ID : **630680471536**
Option 3 ID : **630680471534**
Option 4 ID : **630680471537**

Q.18 Classify the following soil by using unified soil classification system (USCS).

% retained on 75-mm sieve	0
% passing on 4.75-mm sieve	100
% passing on 75-μm sieve	82
Coefficient of curvature	1.2
Coefficient of uniformity	9.3
Liquid limit	60
Plastic limit	28

Ans   ✗ 1. OH

✓ 2. CH

✗ 3. CI

✗ 4. CL

Question ID : **630680133467**
Option 1 ID : **630680516845**
Option 2 ID : **630680516842**
Option 3 ID : **630680516843**
Option 4 ID : **630680516844**

Q.19 A gravity dam is 15 m in height and it has a free board of 3 m. What will be the maximum water pressure, which is horizontal towards the upstream side (in kgf/m), and its position?

Ans   ✓ 1. 72000 kgf/m acting 4 m from the base of the dam

✗ 2. 112500 kgf/m acting 4 m from the base of the dam

✗ 3. 72000 kgf/m acting 5 m from the base of the dam

✗ 4. 112500 kgf/m acting 5 m from the base of the dam

Question ID : **630680144950**
Option 1 ID : **630680560841**
Option 2 ID : **630680560840**
Option 3 ID : **630680560839**
Option 4 ID : **630680560838**

Q.20 Which of the following shall NOT be included in the standard template for abstract of costs?

Ans   ✓ 1. Supplier

✗ 2. Cost

✗ 3. Quantity

✗ 4. Unit

Question ID : **630680876226**
Option 1 ID : **6306803431673**
Option 2 ID : **6306803431674**
Option 3 ID : **6306803431671**
Option 4 ID : **6306803431672**

Section : **Discipline5**

Q.1 The friction circle method of slope stability analysis is based on _____ .

Ans ✔ 1. Rankine's analysis

✗ 2. Coulomb's analysis

✗ 3. effective stress analysis
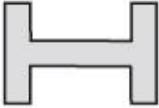
✗ 4. total stress analysis

Question ID : **630680159100**
Option 1 ID : **630680615869**
Option 2 ID : **630680615871**
Option 3 ID : **630680615868**
Option 4 ID : **630680615870**

Q.2 The raised areas constructed within the roadway to establish a physical channel through which vehicular traffic may be guided is called:

Ans ✗ 1. a zone

✔ 2. an island

✗ 3. a kerb

✗ 4. a median

Question ID : **63068083044**
Option 1 ID : **630680322039**
Option 2 ID : **630680322038**
Option 3 ID : **630680322036**
Option 4 ID : **630680322037**

Q.3 Which of the following seismoresistant architectural plans is recommendable?

Ans

✗ 1.

✗ 2.

✔ 3.

✗ 4.

Question ID : **630680876120**
Option 1 ID : **6306803431247**
Option 2 ID : **6306803431248**
Option 3 ID : **6306803431249**
Option 4 ID : **6306803431250**

Q.4 A mild steel circular column of 1.2 m long and diameter of 8 mm is loaded centrally based on Euler's Buckling theory. A column is fixed at one end and is free at another end having maximum deflection of 40 mm. If the elastic modulus of column material is 2×10^5 N/mm^2, find the maximum pressure that is sustained by the column.

Ans
✗ 1. 269.72 N/mm^2

✓ 2. 67.43 N/mm^2

✗ 3. 1.37 N/mm^2

✗ 4. 134.86 N/mm^2

Question ID : **630680137584**
Option 1 ID : **630680532705**
Option 2 ID : **630680532703**
Option 3 ID : **630680532702**
Option 4 ID : **630680532704**

Q.5 At horizontal curve the gradient should NOT be exceeded by an amount known as grade compensation for curve radius R given by $\frac{30+R}{R}$, which should NOT be more than:

Ans
✗ 1. $\dfrac{100}{R}$

✗ 2. $\dfrac{50}{R}$
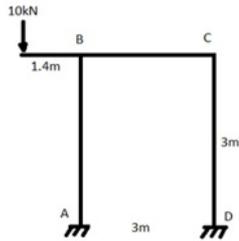
✗ 3. $\dfrac{25}{R}$

✓ 4. $\dfrac{75}{R}$

Question ID : **63068083040**
Option 1 ID : **630680322023**
Option 2 ID : **630680322021**
Option 3 ID : **630680322020**
Option 4 ID : **630680322022**

Q.6 The beam buckles elastically if _____, where M_{cr} = elastic critical moment corresponding to lateral-torsional buckling of the beam and M_y = design bending strength along weaker axis.

Ans
✓ 1. $M_{cr} = 2M_y$

✗ 2. $M_{cr} < M_y$

✗ 3. $M_{cr} = M_y$

✗ 4. $2M_y > M_{cr} > M_y$

Question ID : **630680160929**
Option 1 ID : **630680623083**
Option 2 ID : **630680623080**
Option 3 ID : **630680623082**
Option 4 ID : **630680623081**

Q.7 Determine the equilibrium equation at joint C, for the portal frame shown in the figure.

Ans ✗ 1. $0.67EI\ \Theta_B + 2.67EI\ \Theta_C - 0.67EI\ \delta = 14$

✗ 2. $2.67EI\ \Theta_B + 0.67EI\ \Theta_C - 0.67EI\ \delta = -14$

✗ 3. $2.67EI\ \Theta_B + 0.67EI\ \Theta_C - 1.67EI\ \delta = -14$

✔ 4. $0.67EI\ \Theta_B + 2.66\ \Theta_C + 0.67EI\ \delta = 0$

Question ID : **63068082454**
Option 1 ID : **630680319858**
Option 2 ID : **630680319857**
Option 3 ID : **630680319859**
Option 4 ID : **630680319856**

Q.8 Horizontal members in a scaffolding placed normal to the wall are called ___.

Ans ✗ 1. bridles

✔ 2. putlogs

✗ 3. standards

✗ 4. braces

Question ID : **630680876270**
Option 1 ID : **6306803431849**
Option 2 ID : **6306803431847**
Option 3 ID : **6306803431850**
Option 4 ID : **6306803431848**

Q.9 The number of yield points that is observed in 'yield-point runout' behaviour in low carbon steel is _____.

Ans ✗ 1. three

✔ 2. two

✗ 3. zero

✗ 4. one

Question ID : **63068099195**
Option 1 ID : **630680385487**
Option 2 ID : **630680385486**
Option 3 ID : **630680385484**
Option 4 ID : **630680385485**

Q.10 Equipotential function for the flow is given by $\phi = 2x^2y^2 + 3$. Determine the component of flow velocity at point coordinate (2, 3) in x direction.

Ans ✔ 1. 72 units

✗ 2. 35 units

✗ 3. 18 units

✗ 4. 54 units

Question ID : **630680145694**
Option 1 ID : **630680563705**
Option 2 ID : **630680563703**
Option 3 ID : **630680563702**
Option 4 ID : **630680563704**

Q.11 What is the need to attain population inversion in laser?

Ans ✗ 1. To achieve a stable condition

✓ 2. To excite most of the atoms

✗ 3. To bring most of the atoms to the ground state

✗ 4. To reduce the time of production of laser

Question ID : **630680876323**
Option 1 ID : **6306803432061**
Option 2 ID : **6306803432059**
Option 3 ID : **6306803432060**
Option 4 ID : **6306803432062**

Q.12 A shear centre of the semi-circular arc is given by:

Ans ✗ 1. $\dfrac{r}{\pi}$

✗ 2. $\dfrac{r}{2\pi}$

✓ 3. $\dfrac{4r}{\pi}$

✗ 4. $\dfrac{2r}{\pi}$

Question ID : **630680101160**
Option 1 ID : **630680393160**
Option 2 ID : **630680393161**
Option 3 ID : **630680393163**
Option 4 ID : **630680393162**

Q.13 If A = B and A, B are independent (i.e. A is independent to itself), then P(A) = _____.

Ans ✗ 1. 1

✗ 2. −1

✗ 3. 0

✓ 4. 0 or 1

Question ID : **63068093928**
Option 1 ID : **630680364408**
Option 2 ID : **630680364410**
Option 3 ID : **630680364407**
Option 4 ID : **630680364409**

Q.14 Systematic errors in surveying is an error:

Ans ✗ 1. which is beyond the control of the surveyor

✗ 2. which occurs from unknown causes

✗ 3. whose magnitude and sign changes frequently

✓ 4. which occurs from well-understood causes and can be reduced by adopting suitable methods

Question ID : **630680121633**
Option 1 ID : **630680471485**
Option 2 ID : **630680471484**
Option 3 ID : **630680471483**
Option 4 ID : **630680471482**

Q.15 Which of the following methods/estimates is NOT an approximate method?

Ans ✗ 1. Plinth area method

✔ 2. Supplementary estimate

✗ 3. Cubic content method

✗ 4. Number of units estimate

Q.16 Loss of stress in steel caused by elastic deformation in concrete is given by:

Ans ✔ 1.

$f_c * \alpha c$, where f_c = Pre-stress in concrete at the level of steel and α_c = Modular ratio of concrete and steel

✗ 2. $\frac{fs}{\alpha c}$, where f_s = Pre-stress in steel and α_c = Modular ratio of concrete and steel

✗ 3. $f_s * \alpha c$, where f_s = Pre-stress in steel and α_c = Modular ratio of concrete and steel

✗ 4. $\frac{fc}{\alpha c}$, where f_c = Pre-stress in concrete at the level of steel and α_c = Modular ratio of concrete and steel

Q.17 In an incompressible and steady 3D flow, $u = x^3+z^6+6$ and $v = y^3+z^4$. Determine z component of velocity that satisfies continuity equation.

Ans ✔ 1. $w = -3z(x^2 + y^2)$

✗ 2. $w = 3y(x^2 + z^2)$

✗ 3. $w = -3x(y^2 + z^2)$

✗ 4. $w = 3(x^2 + y^2)$

Q.18 Which of the following is NOT a type of fold?

Ans ✘ 1. Overturned

✘ 2. Isoclinal

✘ 3. Recumbent

✔ 4. Strike-slip

Question ID : **630680876198**
Option 1 ID : **6306803431560**
Option 2 ID : **6306803431561**
Option 3 ID : **6306803431562**
Option 4 ID : **6306803431559**

Q.19 Duty of water is represented by a relationship:

Ans ✘ 1. volume of water and base period of crop

✘ 2. volume of water and depth of crop

✔ 3. volume of water and area of crop

✘ 4. volume of water and crop period of crop

Question ID : **63068079231**
Option 1 ID : **630680306962**
Option 2 ID : **630680306964**
Option 3 ID : **630680306963**
Option 4 ID : **630680306961**

Q.20 In a psychrometer, the bulb is covered with a water-soaked wick to measure _____.

Ans ✘ 1. dry bulb temperature

✔ 2. wet bulb temperature

✘ 3. dew point temperature

✘ 4. hot bulb temperature

Question ID : **630680171060**
Option 1 ID : **630680662826**
Option 2 ID : **630680662825**
Option 3 ID : **630680662824**
Option 4 ID : **630680662827**