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Participant Name	
Test Center Name	
Test Date	30/06/2024
Test Time	8:30 AM - 10:30 AM
Subject	Assistant Engineer (Civil)

Section : General intelligence and Reasoning Ability

Q.1 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their 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.)

(69, 55, 38)
(85, 71, 54)

- Ans 1. (77, 63, 46)
 2. (88, 74, 47)
 3. (92, 72, 55)
 4. (79, 75, 48)

Question ID : 630680536142
Option 1 ID : 6306802095884
Option 2 ID : 6306802095886
Option 3 ID : 6306802095887
Option 4 ID : 6306802095885

Q.2 Three of the following pairs of letter-clusters are alike in some manner and hence form a group. Which pair does NOT belong to that group?

- Ans 1. XD - YE
 2. RX - SY
 3. WQ - IP
 4. EK - FL

Question ID : 630680309860
Option 1 ID : 6306801205590
Option 2 ID : 6306801205591
Option 3 ID : 6306801205592
Option 4 ID : 6306801205589

Q.3 This question is based on the five, three-digit numbers given below.

(Left) 370 624 212 347 928 (Right)

(Example: 697 – First digit = 6, second digit = 9 and third digit = 7)

NOTE: All operations to be done from left to right.

If 1 is added to every number, in how many numbers will the third digit be exactly divisible by the second digit?

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

Question ID : 630680756540
Option 1 ID : 6306802965137
Option 2 ID : 6306802965139
Option 3 ID : 6306802965138
Option 4 ID : 6306802965136

Q.4 Refer to the given letter, number, symbol series and answer the question that follows.

(Left) J S • 8 ¶ \$ W M ¥ # £ A C P 3 H T U @ 4 & (Right)

If all the letters are dropped from the series, which of the following will be 5th from the left?

- Ans
- 1. ¶
 - 2. 8
 - 3. ¥
 - 4. 3

Question ID : 630680757077
Option 1 ID : 6306802967295
Option 2 ID : 6306802967293
Option 3 ID : 6306802967294
Option 4 ID : 6306802967292

Q.5 What will come in place of the question mark (?) in the following equation if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$15 \times 3 - 1 + 2 \div 2 = ?$$

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

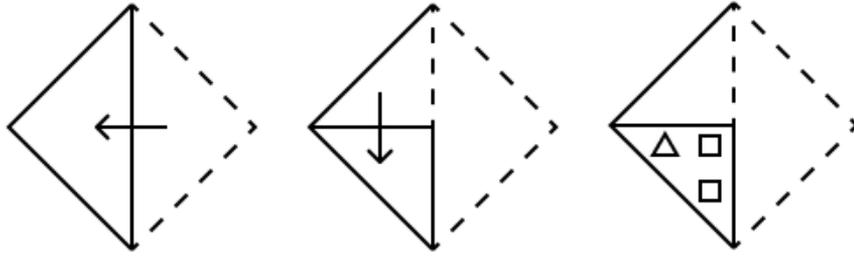
Question ID : 630680374628
Option 1 ID : 6306801459679
Option 2 ID : 6306801459682
Option 3 ID : 6306801459680
Option 4 ID : 6306801459681

Q.6 C, D का भाई है। D, E की पत्नी है। E, F का पुत्र है। F, G का पिता है। C का G से क्या संबंध है?

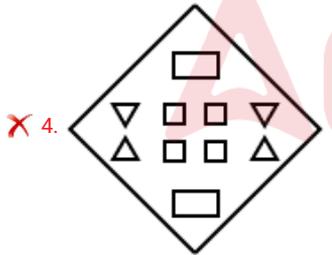
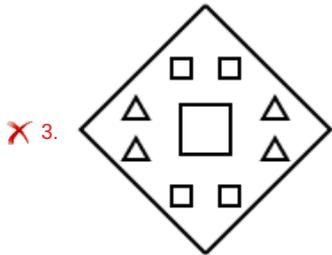
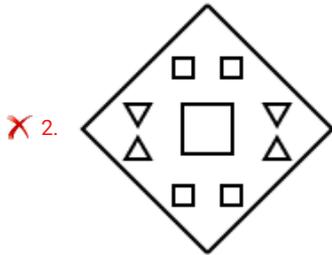
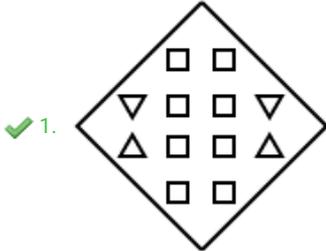
- Ans
- 1. भाई की पत्नी का पुत्र
 - 2. भाई की पत्नी का भाई
 - 3. भाई
 - 4. भाई की पत्नी का पिता

Question ID : 630680493596
Option 1 ID : 6306801928114
Option 2 ID : 6306801928112
Option 3 ID : 6306801928115
Option 4 ID : 6306801928113

Q.7 A paper is folded and cut as shown below. How will it appear when unfolded?



Ans



Question ID : 630680531795
 Option 1 ID : 6306802078964
 Option 2 ID : 6306802078963
 Option 3 ID : 6306802078961
 Option 4 ID : 6306802078962

Q.8 J10K11 is related to Q17P16 in a certain way. In the same way, G7H8 is related to T20S19.
To which of the following is A1B2 related to, following the same logic?

- Ans 1. Z26Y25
 2. A26B25
 3. B26A25
 4. Z25Y26

Question ID : 63068083716
 Option 1 ID : 630680324480
 Option 2 ID : 630680324481
 Option 3 ID : 630680324483
 Option 4 ID : 630680324482

Q.9 What will come in place of the question mark (?) in the following equation if '+' and '-' are interchanged and 'x' and '÷' are interchanged?
 $10 \div 3 \times 3 + 4 - 8 = ?$

- Ans 1. 12
 2. 16
 3. 14
 4. 10

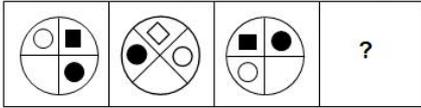
Question ID : 630680374625
 Option 1 ID : 6306801459668
 Option 2 ID : 6306801459670
 Option 3 ID : 6306801459669
 Option 4 ID : 6306801459667

Q.10 एक निश्चित कूट भाषा में,
 'A + B' का अर्थ है, 'A, B की माँ है',
 'A - B' का अर्थ है, 'A, B की बहन है',
 'A × B' का अर्थ है, 'A, B का पति है',
 'A ÷ B' का अर्थ है, 'A, B का भाई है'।
 उपरोक्त के आधार पर, यदि 'P - Q ÷ R × S + T' है, तो P, T से किस प्रकार संबंधित है?

- Ans 1. माँ
 2. माँ की बहन
 3. बहन
 4. पिता की बहन

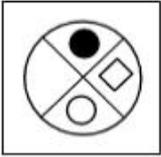
Question ID : 63068058059
 Option 1 ID : 630680223985
 Option 2 ID : 630680223982
 Option 3 ID : 630680223984
 Option 4 ID : 630680223983

Q.11 Select the figure from the options that can replace the question mark (?) and complete the pattern.

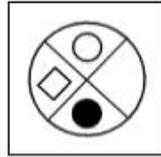


Ans

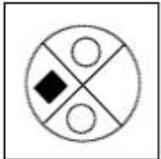
✗ 1.



✓ 2.



✗ 3.



✗ 4.



Question ID : 63068057729
Option 1 ID : 630680222754
Option 2 ID : 630680222757
Option 3 ID : 630680222756
Option 4 ID : 630680222755

Q.12 VUTS is related to EFGH in a certain way based on the English alphabetical order. In the same way, PONM is related to KLMN. To which of the following is JIHG related to, following the same logic?

Ans ✗ 1. RQTS

✗ 2. QTRS

✓ 3. QRST

✗ 4. TSRQ

Question ID : 63068083718
Option 1 ID : 630680324491
Option 2 ID : 630680324488
Option 3 ID : 630680324490
Option 4 ID : 630680324489

Q.13 Select the set in which the numbers are related in the same way as are the numbers of the given sets.
(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/deleting/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.)
(13, 17, 15)
(27, 33, 30)

- Ans
- 1. (24, 36, 17)
 - 2. (11, 59, 37)
 - 3. (98, 64, 87)
 - 4. (79, 89, 84)

Question ID : 630680366431
Option 1 ID : 6306801427241
Option 2 ID : 6306801427242
Option 3 ID : 6306801427244
Option 4 ID : 6306801427243

Q.14 Select the option that is related to the fifth number in the same way as the first number is related to the second number and the third number is related to the fourth number.
2 : 3 :: 7 : 11 :: 31 : ?

- Ans
- 1. 47
 - 2. 43
 - 3. 41
 - 4. 37

Question ID : 630680517023
Option 1 ID : 6306802020491
Option 2 ID : 6306802020490
Option 3 ID : 6306802020489
Option 4 ID : 6306802020488

Q.15 Seven people, A, B, C, D, E, F and G, are sitting in a straight row, facing the north. Only two people sit to the left of C. Only two people sit between A and B. B sits to the left of A. E is an immediate neighbour of A to the right. Only one person sits to the right of D. F is not the immediate neighbour of B. Who sits to the extreme right?

- Ans
- 1. F
 - 2. G
 - 3. E
 - 4. B

Question ID : 630680521427
Option 1 ID : 6306802038133
Option 2 ID : 6306802038134
Option 3 ID : 6306802038135
Option 4 ID : 6306802038136

Q.16 What should come in place of '?' in the given series?

28 60 92 124 156 ?

- Ans
- 1. 194
 - 2. 188
 - 3. 186
 - 4. 192

Question ID : 630680554465
Option 1 ID : 6306802191359
Option 2 ID : 6306802191357
Option 3 ID : 6306802191356
Option 4 ID : 6306802191358

Q.17 Each of K, L, M, N, O, P and Q has an exam on a different day of the week starting on Monday and ending on Sunday of the same week.

K has an exam on Friday. Only one person has an exam between K and Q. L has an exam on the day immediately after Q. Only two persons have an exam between Q and M. N's exam is on one of the days before M but not on a Monday. O has an exam on the day immediately after M.

Who among the following has an exam on Monday?

- Ans
- 1. Q
 - 2. P
 - 3. N
 - 4. L

Question ID : 630680397963
Option 1 ID : 6306801551868
Option 2 ID : 6306801551866
Option 3 ID : 6306801551867
Option 4 ID : 6306801551869

Q.18 Each of the digits in the number 8667941975326 is arranged in descending order from left to right. The position(s) of how many digits will remain unchanged as compared to that/those in the original number?

- Ans
- 1. Two
 - 2. Three
 - 3. One
 - 4. Four

Question ID : 630680452001
Option 1 ID : 6306801765079
Option 2 ID : 6306801765080
Option 3 ID : 6306801765078
Option 4 ID : 6306801765081

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. SUO
 2. PRM
 3. JLG
 4. MOJ

Question ID : 630680527059
Option 1 ID : 6306802060269
Option 2 ID : 6306802060270
Option 3 ID : 6306802060272
Option 4 ID : 6306802060271

Q.20 What should come in place of '?' in the given series?

151 134 117 100 ? 66

- Ans 1. 93
 2. 83
 3. 73
 4. 63

Question ID : 630680560862
Option 1 ID : 6306802192552
Option 2 ID : 6306802192553
Option 3 ID : 6306802192554
Option 4 ID : 6306802192555

Section : General Awareness

Q.1 Identify whether the given statements labelled assertion (A) and reason (R) are correct or incorrect.

Assertion (A): Financial inclusion through microfinance system is a major way to empower women in India.

Reason (R): Microfinance loans are disbursed in India to women directly under Pradhan Mantri Jan Dhan Yojana.

- Ans 1. Both (A) and (R) are correct and (R) does not explain (A)
 2. Both (A) and (R) are incorrect
 3. Only (A) is correct and (R) is incorrect
 4. Both (A) and (R) are correct and (R) explains (A)

Question ID : 630680422554
Option 1 ID : 6306801648652
Option 2 ID : 6306801648654
Option 3 ID : 6306801648653
Option 4 ID : 6306801648651

Q.2 Article 315 of the Constitution of India entails _____.

- Ans
- 1. Commission of Parliament on official languages
 - 2. Administrative Tribunals
 - 3. National Commission for Scheduled Castes
 - 4. Public Service Commission for Union and States

Question ID : 630680511457
Option 1 ID : 6306801998961
Option 2 ID : 6306801998960
Option 3 ID : 6306801998958
Option 4 ID : 6306801998959

Q.3 In October 2023, which health scheme was launched by the Karnataka Health Department to provide treatment to people suffering from sudden heart attacks and cardiac issues?

- Ans
- 1. Heartbeat Relief Program
 - 2. Dr Rajkumar Health Initiative
 - 3. Dr Puneeth Rajkumar Hrudaya Jyoti Yojana
 - 4. Karnataka CardioCare Scheme

Question ID : 630680780432
Option 1 ID : 6306803058821
Option 2 ID : 6306803058820
Option 3 ID : 6306803058822
Option 4 ID : 6306803058819

Q.4 In which of the following years was the All India Scheduled Caste Federation established by Dr. BR Ambedkar?

- Ans
- 1. 1940
 - 2. 1942
 - 3. 1924
 - 4. 1936

Question ID : 630680326440
Option 1 ID : 6306801269852
Option 2 ID : 6306801269851
Option 3 ID : 6306801269850
Option 4 ID : 6306801269849

Q.5 What is the name of the autobiography of Manu Bhandari?

- Ans
- 1. Apni Khabar
 - 2. Aaj ke Atit
 - 3. Ek Kahani Yeh Bhi
 - 4. Ardhkathanak

Question ID : 630680157742
Option 1 ID : 630680610497
Option 2 ID : 630680610496
Option 3 ID : 630680610498
Option 4 ID : 630680610499

Q.6 Which of the following languages is NOT widely spoken in the North-Eastern part of India?

- Ans
- 1. Sanskrit
 - 2. Manipuri
 - 3. Assamese
 - 4. Bodo

Question ID : 630680320068
Option 1 ID : 6306801245173
Option 2 ID : 6306801245176
Option 3 ID : 6306801245175
Option 4 ID : 6306801245174

Q.7 Which Amendment of the Constitution of India led to removing the 'right to property' from the list of Fundamental Rights and converted it into a simple legal right under Article 300A?

- Ans
- 1. The 42nd Amendment
 - 2. The 49th Amendment
 - 3. The 40th Amendment
 - 4. The 44th Amendment

Question ID : 630680406226
Option 1 ID : 6306801583989
Option 2 ID : 6306801583991
Option 3 ID : 6306801583988
Option 4 ID : 6306801583990

Q.8 Which of the following festivals of Ladakh is performed by monks on the 15th day of the 1st month of the Tibetan calendar?

- Ans
- 1. Hemis
 - 2. Matho Nagrang
 - 3. Losar
 - 4. Phyang Tsedup

Question ID : 63068050068
Option 1 ID : 630680192595
Option 2 ID : 630680192594
Option 3 ID : 630680192596
Option 4 ID : 630680192597

Q.9 With reference to the Prarthana Samaj, which of the following statements is/are correct?

1. The Prarthana Samaj was established in 1867 in Bombay.
2. The Prarthana Samaj members considered themselves to be secular.
3. The Prarthana Samaj focused on social reforms like inter caste marriage, widow remarriage, women's education, increasing the age of marriage etc.

- Ans
- 1. Only 1
 - 2. Only 2 and 3
 - 3. Only 1 and 3
 - 4. Only 1 and 2

Question ID : 630680117212
Option 1 ID : 630680454134
Option 2 ID : 630680454136
Option 3 ID : 630680454137
Option 4 ID : 630680454135

Q.10 In which of the following years did a separate National Commission for Scheduled Castes come into existence?

- Ans 1. 2002
 2. 2004
 3. 2005
 4. 2003

Question ID : 63068099229
 Option 1 ID : 630680385620
 Option 2 ID : 630680385622
 Option 3 ID : 630680385623
 Option 4 ID : 630680385621

Q.11 उत्तरी भारत में ग्रीष्म ऋतु का एक विस्मयकारी लक्षण क्या है?

- Ans 1. आंधी-अंधड़
 2. ओलावर्षण
 3. भारी वर्षा
 4. हिमपात

Question ID : 630680209069
 Option 1 ID : 630680810491
 Option 2 ID : 630680810494
 Option 3 ID : 630680810492
 Option 4 ID : 630680810493

Q.12 Which of the following Census years recorded a decrease in the sex ratio from the previous Census of India?

- Ans 1. 1991
 2. 2011
 3. 1981
 4. 2001

Question ID : 630680553615
 Option 1 ID : 6306802164357
 Option 2 ID : 6306802164359
 Option 3 ID : 6306802164356
 Option 4 ID : 6306802164358

Q.13 Pandita Ramabai, a prominent figure in late 19th and early 20th century India, was renowned for her contributions to which of the following?

- Ans 1. Leading the Indian independence movement.
 2. Establishing the first women's university in India.
 3. Advocating for women's suffrage in India.
 4. Promoting the welfare and education of Indian widows

Question ID : 630680769760
 Option 1 ID : 6306803016978
 Option 2 ID : 6306803016979
 Option 3 ID : 6306803016977
 Option 4 ID : 6306803016976

Q.14 Who among the following from India participated in the high level segment of the 'World Climate Action Summit' of the 2023 United Nations Climate Change Conference COP-28?

- Ans
- 1. Speaker of Lok Sabha
 - 2. Prime Minister of India
 - 3. President of India
 - 4. Governor of Sikkim

Question ID : 630680749227
Option 1 ID : 6306802936443
Option 2 ID : 6306802936441
Option 3 ID : 6306802936440
Option 4 ID : 6306802936442

Q.15 Which of the following is the storage product of most algae?

- Ans
- 1. Rhyolite
 - 2. Glycogen
 - 3. Cellulose
 - 4. Starch

Question ID : 630680305632
Option 1 ID : 6306801188902
Option 2 ID : 6306801188901
Option 3 ID : 6306801188903
Option 4 ID : 6306801188904

Q.16 शब्द 'आरंभ' और 'विराम' ('Onset' and 'break') निम्नलिखित में से किससे संबंधित हैं?

- Ans
- 1. चक्रवात
 - 2. मानसून
 - 3. जेट धाराओं
 - 4. लू (गर्म हवाओं)

Question ID : 630680511356
Option 1 ID : 6306801998557
Option 2 ID : 6306801998554
Option 3 ID : 6306801998556
Option 4 ID : 6306801998555

Q.17 Nafe Singh Nain, a prominent khap leader known for his impartial decisions on social issues and belonging to the state of _____, passed away in December 2023.

- Ans
- 1. Madhya Pradesh
 - 2. Uttar Pradesh
 - 3. Haryana
 - 4. Punjab

Question ID : 630680780436
Option 1 ID : 6306803058837
Option 2 ID : 6306803058838
Option 3 ID : 6306803058836
Option 4 ID : 6306803058835

Q.18 Which of the following are true for self-help groups?

- I. There are between 12 to 20 members per group.
- II. Most members are women.
- III. Each member pays a membership fee.
- IV. Dividends are calculated by the group.

- Ans
- 1. Only IV and III
 - 2. Only I and II
 - 3. Only I, II and III
 - 4. Only II and IV

Question ID : 630680314393
 Option 1 ID : 6306801223376
 Option 2 ID : 6306801223373
 Option 3 ID : 6306801223375
 Option 4 ID : 6306801223374

Q.19 As a part of G20 initiative, a mega beach cleaning International Event was organised on 21st May 2023, wherein a total of _____ countries participated.

- Ans
- 1. 18
 - 2. 20
 - 3. 15
 - 4. 17

Question ID : 630680749210
 Option 1 ID : 6306802936374
 Option 2 ID : 6306802936375
 Option 3 ID : 6306802936372
 Option 4 ID : 6306802936373

Q.20 What is the scientific name for brown algae?

- Ans
- 1. Caragreen
 - 2. Phaeophyceae
 - 3. Algin
 - 4. Gracilaria

Question ID : 63068054926
 Option 1 ID : 630680211734
 Option 2 ID : 630680211737
 Option 3 ID : 630680211735
 Option 4 ID : 630680211736

Section : Arithmetical and Numerical Ability

Q.1 At what rate (in percentage) per year will a sum of money 4 times itself in 24 years on simple interest?

- Ans
- 1. 25
 - 2. 12.5
 - 3. 10.5
 - 4. 14.5

Question ID : 630680612312
 Option 1 ID : 6306802395981
 Option 2 ID : 6306802395980
 Option 3 ID : 6306802395982
 Option 4 ID : 6306802395983

Q.2 Study the given table and answer the question that follows.

A school conducts two examinations per semester. The table shows the results of classes VIII, IX and X during the last semester.

Result	Students in class VIII	Students in class IX	Students in class X
Passed in both the examinations	2340	3420	4320
Failed in both the examinations	960	690	660
Passed in only one examination	180	90	25

The number of students in class IX is:

- Ans**
- 1. 3480
 - 2. 5005
 - 3. 4290
 - 4. 4200

Question ID : 630680816424
 Option 1 ID : 6306803197970
 Option 2 ID : 6306803197971
 Option 3 ID : 6306803197972
 Option 4 ID : 6306803197969

Q.3 Rashmika sells a laptop charger to Monika at a loss of 10% and Monika sells it to Virendar at a profit of 25%. If Virendar purchased the laptop charger for ₹4,500, then what was the cost (in ₹) of the laptop charger for Rashmika?

- Ans**
- 1. 3900
 - 2. 3700
 - 3. 3800
 - 4. 4000

Question ID : 630680816425
 Option 1 ID : 6306803197975
 Option 2 ID : 6306803197973
 Option 3 ID : 6306803197974
 Option 4 ID : 6306803197976

Q.4 Pipe I can fill a tank in 6 hours. Pipe II can fill the same tank in 8 hours. Pipe I, II and III can together fill the same tank in 12 hours. The time taken to empty the tank by Pipe III is:

- Ans**
- 1. 6:48 hours
 - 2. 5:48 hours
 - 3. 3:48 hours
 - 4. 4:48 hours

Question ID : 630680186803
 Option 1 ID : 630680724164
 Option 2 ID : 630680724162
 Option 3 ID : 630680724161
 Option 4 ID : 630680724163

Q.5 The curved surface area of a cone is double its base area. If its height is 3 units, then its curved surface area is _____ square units.

- Ans
- 1. 2π
 - 2. $\frac{\pi}{2}$
 - 3. π
 - 4. 3π

Question ID : 630680373856
 Option 1 ID : 6306801456697
 Option 2 ID : 6306801456695
 Option 3 ID : 6306801456696
 Option 4 ID : 6306801456698

Q.6 If Pardu's income is 34% less than that of Kunal's income, then approximately by how much percent is Kunal's income more than that of Pardu's income?

- Ans
- 1. 0.4111
 - 2. 34%
 - 3. 0.5152
 - 4. 66%

Question ID : 630680635177
 Option 1 ID : 6306802486596
 Option 2 ID : 6306802486597
 Option 3 ID : 6306802486598
 Option 4 ID : 6306802486595

Q.7 Madhavi and Sukumar, both drove between two points A and B that were 528 km apart. Madhavi started the journey from A at 11:35 a.m., drove at a speed of 70.4 km/h, reached B and immediately returned to A at the same speed using the same route. Sukumar also travelled through the same route both ways, but started the journey from A at 1:20 p.m., drove at a speed of 88 km/h, reached B and immediately returned to A at the same speed. At what time did Madhavi and Sukumar first meet each other?

- Ans
- 1. 07:13:40 p.m.
 - 2. 07:13:30 p.m.
 - 3. 07:13:20 p.m.
 - 4. 07:13:10 p.m.

Question ID : 630680381278
 Option 1 ID : 6306801486063
 Option 2 ID : 6306801486064
 Option 3 ID : 6306801486065
 Option 4 ID : 6306801486066

Q.8 Study the given information carefully and answer the question based on it.
The below table shows the number of trees axed during 2016-2020.

Year	Neem	Banyan	Teak
2016	15,000	20,000	25,000
2017	18,000	28,000	28,000
2018	22,000	32,000	32,000
2019	25,000	35,000	35,000
2020	28,000	38,000	38,000

Find the ratio of average number of Neem trees axed to that of Teak during 2016-2020.

- Ans
- 1. 59 : 54
 - 2. 79 : 52
 - 3. 54 : 79
 - 4. 79 : 54

Question ID : 630680395480
 Option 1 ID : 6306801542091
 Option 2 ID : 6306801542090
 Option 3 ID : 6306801542089
 Option 4 ID : 6306801542088

Q.9 In an election, candidate A got 75% of the total valid votes. If the total numbers of votes is 6,50,000 and 5% of the total votes were declared invalid, then the number of valid votes polled in favour of the candidate is:

- Ans
- 1. 4,53,225
 - 2. 4,63,125
 - 3. 5,36,125
 - 4. 4,75,155

Question ID : 630680540340
 Option 1 ID : 6306802112457
 Option 2 ID : 6306802112460
 Option 3 ID : 6306802112458
 Option 4 ID : 6306802112459

Q.10 On an item, a shopkeeper earns 20% profit even after offering a 20% discount on the marked price. The cost of the item is increased by 10% and the marked price remains the same. How much discount in percentage must be offered now on the marked price to have the same percentage of profit?

- Ans
- 1. 18%
 - 2. 12%
 - 3. 15%
 - 4. 30%

Question ID : 630680227067
 Option 1 ID : 630680880960
 Option 2 ID : 630680880961
 Option 3 ID : 630680880962
 Option 4 ID : 630680880959

Q.11 The average marks of Ram and Shyam in Hindi is 88. The average marks of Meena and Reena in Hindi is 95. What is the average marks of Ram, Shyam, Meena and Reena in Hindi?

- Ans
- 1. 89.3
 - 2. 90.4
 - 3. 92.8
 - 4. 91.5

Question ID : 630680628730
 Option 1 ID : 6306802460978
 Option 2 ID : 6306802460979
 Option 3 ID : 6306802460981
 Option 4 ID : 6306802460980

Q.12 If the curved surface area of a right circular cone is $5005/2 \text{ cm}^2$ and the ratio of its radius to height is $5/12$, then it's volume will be:

- Ans
- 1. 11550 cm^3
 - 2. 8085 cm^3
 - 3. 13475 cm^3
 - 4. 8820 cm^3

Question ID : 63068061435
 Option 1 ID : 630680237116
 Option 2 ID : 630680237114
 Option 3 ID : 630680237117
 Option 4 ID : 630680237115

Q.13 $22^2 + \sqrt{K} = 516$, The value of K is ...

- Ans
- 1. 1128
 - 2. 1024
 - 3. 1124
 - 4. 1028

Question ID : 63068086503
 Option 1 ID : 630680335423
 Option 2 ID : 630680335421
 Option 3 ID : 630680335422
 Option 4 ID : 630680335420

Q.14 If $m : n = 9 : 8$ and $p : q = 4m : 3n$, then $mp : nq$ is:

- Ans
- 1. 27 : 32
 - 2. 27 : 16
 - 3. 3 : 4
 - 4. 3 : 2

Question ID : 630680629409
 Option 1 ID : 6306802463706
 Option 2 ID : 6306802463709
 Option 3 ID : 6306802463708
 Option 4 ID : 6306802463707

Q.15 Simplify the given expression.

$$\frac{4\frac{4}{5} \div \left(\frac{3}{5} \times \frac{8}{15}\right) - \left(\frac{2}{3} \div \frac{8}{15}\right) \times 6}{2\frac{2}{7} \times \left(\frac{20}{3} \div \frac{8}{21}\right) - \left(\frac{4}{5} \div \frac{8}{15}\right) \times 10}$$

- Ans
- 1. $\frac{2}{5}$
 - 2. $\frac{3}{5}$
 - 3. $\frac{1}{2}$
 - 4. $\frac{3}{10}$

Question ID : 630680381260
 Option 1 ID : 6306801485993
 Option 2 ID : 6306801485991
 Option 3 ID : 6306801485994
 Option 4 ID : 6306801485992

Q.16 The value of $\frac{(0.09)^2 + (0.76)^2}{(0.009)^2 + (0.076)^2}$ is equal to:

- Ans
- 1. 0.769
 - 2. 100
 - 3. 10
 - 4. 0.976

Question ID : 63068084209
 Option 1 ID : 630680326367
 Option 2 ID : 630680326364
 Option 3 ID : 630680326365
 Option 4 ID : 630680326366

Q.17 In a 200 m race, A gives B a start of 10 seconds and beats him by 20 m. In another race of 200 m, A and B run with the earlier speeds and A beats B by 15 seconds. Find the speeds of A and B, respectively (in m/sec).

- Ans
- 1. $\frac{15}{6}$ and 7
 - 2. $\frac{20}{7}$ and 4
 - 3. $\frac{40}{7}$ and 4
 - 4. $\frac{13}{6}$ and 6

Question ID : 630680521953
 Option 1 ID : 6306802040141
 Option 2 ID : 6306802040142
 Option 3 ID : 6306802040143
 Option 4 ID : 6306802040140

Q.18 A sum of ₹20,000 is lent at 20% rate of interest, compounded annually for a period of 2 years. What is the compound interest (in ₹)?

- Ans
- 1. 8000
 - 2. 9500
 - 3. 8800
 - 4. 9000

Question ID : 630680524023
 Option 1 ID : 6306802048243
 Option 2 ID : 6306802048245
 Option 3 ID : 6306802048244
 Option 4 ID : 6306802048246

Q.19 A swimming pool of cuboidal shape of size 10 m × 5 m × 4 m is to be dug out in a back courtyard of a club complex. Its floor and side walls are to be tiled at a rate of ₹700 per m². How much will it cost?

- Ans
- 1. ₹1,20,000
 - 2. ₹1,19,000
 - 3. ₹1,19,500
 - 4. ₹1,05,000

Question ID : 63068070511
 Option 1 ID : 630680272669
 Option 2 ID : 630680272668
 Option 3 ID : 630680272667
 Option 4 ID : 630680272666

Q.20 In a partnership business, Q's capital was half of P's. If after 7 months, Q withdrew half of his capital and after 3 months more P withdrew 1/3 of his capital, then the profit ratio of P and Q will be:

- Ans
- 1. 54 : 131
 - 2. 131 : 54
 - 3. 57 : 136
 - 4. 136 : 57

Question ID : 630680521587
 Option 1 ID : 6306802038692
 Option 2 ID : 6306802038691
 Option 3 ID : 6306802038689
 Option 4 ID : 6306802038690

Section : English Language and Comprehension

Q.1 Select the most appropriate ANTONYM of the underlined word in the given sentence. After reading the thought provoking novel, he remained pensive for hours, contemplating its themes.

- Ans
- 1. Awake
 - 2. Flippant
 - 3. Analytic
 - 4. Alert

Question ID : 630680383235
 Option 1 ID : 6306801493847
 Option 2 ID : 6306801493849
 Option 3 ID : 6306801493848
 Option 4 ID : 6306801493850

Q.2 Select an appropriate word from the options given below to make a meaningful sentence.

I felt very bad when he made ____ remarks to my mother.

- Ans
- 1. protective
 - 2. offensive
 - 3. defensive
 - 4. apologetic

Question ID : 630680120398
 Option 1 ID : 630680466625
 Option 2 ID : 630680466623
 Option 3 ID : 630680466622
 Option 4 ID : 630680466624

Q.3 Select the INCORRECTLY spelt word.

- Ans
- 1. Heredity
 - 2. Stupidity
 - 3. Serendity
 - 4. Necessity

Question ID : 630680158119
 Option 1 ID : 630680612007
 Option 2 ID : 630680612006
 Option 3 ID : 630680612004
 Option 4 ID : 630680612005

Q.4 Select the most appropriate option to fill in the blank.
 They took a canoe to take them _____ the river.

- Ans
- 1. about
 - 2. across
 - 3. over
 - 4. through

Question ID : 630680191719
 Option 1 ID : 630680743485
 Option 2 ID : 630680743488
 Option 3 ID : 630680743486
 Option 4 ID : 630680743487

Q.5 Select the most appropriate ANTONYM of the word 'remonstrated' from the given sentence.

Both, Nimki and Rinki protested against and argued with Chinki who agreed and completed the clauses of their three-year-old agreement.

- Ans
- 1. Protested
 - 2. Agreed
 - 3. Completed
 - 4. Argued

Question ID : 630680550385
 Option 1 ID : 6306802151811
 Option 2 ID : 6306802151813
 Option 3 ID : 6306802151814
 Option 4 ID : 6306802151812

Q.6 Select the most appropriate option to fill in the blank.
Immediately after the rain, _____ thick mist took over the region.

- Ans
- 1. a
 - 2. an
 - 3. much
 - 4. many

Question ID : 63068054651
Option 1 ID : 630680210639
Option 2 ID : 630680210638
Option 3 ID : 630680210641
Option 4 ID : 630680210640

Q.7 Select the most appropriate ANTONYM of the underlined word in the given sentence.
I feel a great affinity for those who are needy and in pain.

- Ans
- 1. predilection
 - 2. aversion
 - 3. incompetence
 - 4. callous

Question ID : 630680324455
Option 1 ID : 6306801262297
Option 2 ID : 6306801262298
Option 3 ID : 6306801262300
Option 4 ID : 6306801262299

Q.8 Select the most appropriate ANTONYM of the underlined word in the given sentence.

Vinayak gave a candid account of his experiences during the interview.

- Ans
- 1. Dishonest
 - 2. Verified
 - 3. Intricate
 - 4. Fascinating

Question ID : 630680540833
Option 1 ID : 6306802114371
Option 2 ID : 6306802114370
Option 3 ID : 6306802114373
Option 4 ID : 6306802114372

Q.9 Select the most appropriate meaning of the given proverb.
Lend your money and lose your friend.

- Ans
- 1. One must not help a friend.
 - 2. Lending money to a friend will create quarrels between the two.
 - 3. One may lose money, but one should not lose one's friend.
 - 4. When you want to become close to someone you must give them money.

Question ID : 630680145325
Option 1 ID : 630680562276
Option 2 ID : 630680562275
Option 3 ID : 630680562277
Option 4 ID : 630680562274

Q.10 Select the most appropriate degree of comparison to fill in the blank.
Aradhya speaks English _____.

- Ans 1. well
 2. better
 3. best
 4. good

Question ID : 630680146572
Option 1 ID : 630680567170
Option 2 ID : 630680567172
Option 3 ID : 630680567173
Option 4 ID : 630680567171

Q.11 Select the most appropriate spelling of the underlined word in the given sentence.
The two parties have united to form a coelition party.

- Ans 1. coalition
 2. koalition
 3. callition
 4. coaliation

Question ID : 630680424251
Option 1 ID : 6306801655344
Option 2 ID : 6306801655343
Option 3 ID : 6306801655345
Option 4 ID : 6306801655346

Q.12 Select the most appropriate option to fill in the blank.

The young should respect _____ old.

- Ans 1. the
 2. this
 3. a
 4. an

Question ID : 63068068181
Option 1 ID : 630680263438
Option 2 ID : 630680263441
Option 3 ID : 630680263439
Option 4 ID : 630680263440

Q.13 Select the most appropriate ANTONYM of the underlined word in the given sentence.

The beautiful and sophisticated lady won many hearts.

- Ans 1. Nosy
 2. Notorious
 3. Naive
 4. Secluded

Question ID : 630680566104
Option 1 ID : 6306802213405
Option 2 ID : 6306802213407
Option 3 ID : 6306802213406
Option 4 ID : 6306802213404

Q.14 Select the most appropriate option to fill in the blank.
His remark that I was _____ wrong made me a bit uncomfortable.

- Ans
- 1. harshly
 - 2. quite
 - 3. crazy
 - 4. quietly

Question ID : 630680146302
Option 1 ID : 630680566101
Option 2 ID : 630680566100
Option 3 ID : 630680566099
Option 4 ID : 630680566098

Q.15 Select the most appropriate meaning of the given proverb.
Pure gold does not fear the flame

- Ans
- 1. Gold is made in flames
 - 2. Gold is a precious metal
 - 3. Good people are not afraid of danger
 - 4. Flames make gold dilute

Question ID : 630680162866
Option 1 ID : 630680630712
Option 2 ID : 630680630714
Option 3 ID : 630680630713
Option 4 ID : 630680630715



Comprehension:

Read the given passage and answer the questions that follow.

In the late 1970s and early 1980s, the feminist, peace, and ecological movements gave rise to ecofeminism, a "new word for ancient wisdom". Despite being coined by Françoise D'Eaubonne, the phrase didn't gain popularity until there were numerous protests and activities against environmental devastation, which were initially spurred by frequent ecological disasters. The first ecofeminist conference, "Women and Life on Earth: A Conference on Eco-Feminism in the Eighties", was held in March 1980 at Amherst as a result of the Three Mile Island nuclear accident. The linkages between feminism and militarization, healing and environment, and other topics were examined at this conference. According to Ynestra King, a Conference organiser:

Ecofeminism emphasises the unity and interconnectedness of theory and practice. Every living creature has a unique strength and integrity, according to this assertion. For us, the snail darter should be compared to a community's need for water, the porpoise to a desire for tuna, and any animals it might strike with Skylab. We are a movement that identifies as female, and we feel that in these dangerous times, we have a specific job to do. We view military and corporate warriors' threats of nuclear annihilation and the destruction of the earth and its inhabitants as feminist concerns.

Vandana Shiva, an ecologist, wrote her famous work on ecological feminism.

When Vandana Shiva asserts that "the marginalisation of women and the destruction of biodiversity go hand in hand", she is highlighting the similarities between environmental oppression and gendered oppression, as well as the unique position of women as being both vulnerable to monoculture capitalism and uniquely positioned to preserve biodiversity.

Shiva thinks that because of their understanding of the diversity of life, women are the best guardians of the earth's health and have a special connection to biodiversity. Shiva believes that diversity is essential to "women's work and knowledge" since it is necessary for performing the reproductive and domestic tasks of life, which defy specialisation. Because they operate across 'sectors' and take on numerous duties, women, according to Shiva, are essential to the protection and use of biodiversity. The earth's reproductive cycles depend on the work found in areas 'in between' the interstices of sectors, according to Darwin. Women migrate across the interrelated systems that have been dangerously and mistakenly segregated from one another when the environment, particularly farmland, is split by the productive desires of capitalism. According to Shiva, "ecological stability, sustainability, and productivity are preserved under resource-scarce situations."

Although women are expected to guard precious diversity, it is precisely this that makes them so susceptible to a monoculture economy. Shiva continues by describing the various ways that the adoption of monoculture systems marginalises women, particularly those living in the rural global south. Subsistence farming's "closed cycle of production and consumption" is ultimately broken by using GMO seeds to eradicate local biodiversity. The colonial powers of the global north may extract commodity value in the form of the monoculture crop on the global market once the self-sustaining cycle is broken.

In addition to the detrimental impacts of monoculture on human health, women are disproportionately disenfranchised since they are cut off from the seeds. According to Shiva, "bought seeds relegate women to unskilled work and remove them from decision-making and seed custodianship." Women farmers are being reduced to uniform hands at the plough of GMO agriculture, much as how textile workers in 19th-century Britain lost their status as artisans and became interchangeable elements of the industrial machine.

Finally, Shiva demonstrates how biotechnology firms are imitating and distorting the reproductive, cyclical character of women's work in the interest of monoculture. Women "create via diversification, whereas corporate scientists produce by uniformity", according to Shiva. Corporations now claim patents on seeds as if they were the real animals and reproducers of life, notwithstanding their antagonistic behaviours and objectives. According to Shiva, the corporate scientists' claim of the 'creation' of life is absolutely unwarranted, it is actually a halt in the life flow of creation". Women are thus not only disregarded as the guardians of ecological life in their communities as a result of the destruction of biodiversity but they are also disregarded as the creators of life due to corporate claims of godlike science.

SubQuestion No : 16

Q.16 Select the most appropriate ANTONYM of the word 'Sympathetic' from the passage.

- Ans
- 1. Oppressive
 - 2. Antagonistic
 - 3. God-like
 - 4. Feministic

Question ID : 630680204158

Option 1 ID : 630680791765

Option 2 ID : 630680791764

Option 3 ID : 630680791766

Option 4 ID : 630680791763

Comprehension:

Read the given passage and answer the questions that follow.

In the late 1970s and early 1980s, the feminist, peace, and ecological movements gave rise to ecofeminism, a "new word for ancient wisdom". Despite being coined by Françoise D'Eaubonne, the phrase didn't gain popularity until there were numerous protests and activities against environmental devastation, which were initially spurred by frequent ecological disasters. The first ecofeminist conference, "Women and Life on Earth: A Conference on Eco-Feminism in the Eighties", was held in March 1980 at Amherst as a result of the Three Mile Island nuclear accident. The linkages between feminism and militarization, healing and environment, and other topics were examined at this conference. According to Ynestra King, a Conference organiser:

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Shiva thinks that because of their understanding of the diversity of life, women are the best guardians of the earth's health and have a special connection to biodiversity. Shiva believes that diversity is essential to "women's work and knowledge" since it is necessary for performing the reproductive and domestic tasks of life, which defy specialisation. Because they operate across 'sectors' and take on numerous duties, women, according to Shiva, are essential to the protection and use of biodiversity. The earth's reproductive cycles depend on the work found in areas 'in between' the interstices of sectors, according to Darwin. Women migrate across the interrelated systems that have been dangerously and mistakenly segregated from one another when the environment, particularly farmland, is split by the productive desires of capitalism. According to Shiva, "ecological stability, sustainability, and productivity are preserved under resource-scarce situations."

Although women are expected to guard precious diversity, it is precisely this that makes them so susceptible to a monoculture economy. Shiva continues by describing the various ways that the adoption of monoculture systems marginalises women, particularly those living in the rural global south. Subsistence farming's "closed cycle of production and consumption" is ultimately broken by using GMO seeds to eradicate local biodiversity. The colonial powers of the global north may extract commodity value in the form of the monoculture crop on the global market once the self-sustaining cycle is broken.

In addition to the detrimental impacts of monoculture on human health, women are disproportionately disenfranchised since they are cut off from the seeds. According to Shiva, "bought seeds relegate women to unskilled work and remove them from decision-making and seed custodianship." Women farmers are being reduced to uniform hands at the plough of GMO agriculture, much as how textile workers in 19th-century Britain lost their status as artisans and became interchangeable elements of the industrial machine.

Finally, Shiva demonstrates how biotechnology firms are imitating and distorting the reproductive, cyclical character of women's work in the interest of monoculture. Women "create via diversification, whereas corporate scientists produce by uniformity", according to Shiva. Corporations now claim patents on seeds as if they were the real animals and reproducers of life, notwithstanding their antagonistic behaviours and objectives. According to Shiva, the corporate scientists' claim of the 'creation' of life is absolutely unwarranted, it is actually a halt in the life flow of creation". Women are thus not only disregarded as the guardians of ecological life in their communities as a result of the destruction of biodiversity but they are also disregarded as the creators of life due to corporate claims of godlike science.

SubQuestion No : 17

Q.17 Select a suitable title for the passage.

- Ans**
- 1. Destruction of Biodiversity
 - 2. Understanding Ecofeminism
 - 3. Women and Militarisation
 - 4. Monocultural Capitalism

Question ID : 630680204155

Option 1 ID : 630680791752

Option 2 ID : 630680791754

Option 3 ID : 630680791751

Option 4 ID : 630680791753

Comprehension:

Read the given passage and answer the questions that follow.

In the late 1970s and early 1980s, the feminist, peace, and ecological movements gave rise to ecofeminism, a "new word for ancient wisdom". Despite being coined by Françoise D'Eaubonne, the phrase didn't gain popularity until there were numerous protests and activities against environmental devastation, which were initially spurred by frequent ecological disasters. The first ecofeminist conference, "Women and Life on Earth: A Conference on Eco-Feminism in the Eighties", was held in March 1980 at Amherst as a result of the Three Mile Island nuclear accident. The linkages between feminism and militarization, healing and environment, and other topics were examined at this conference. According to Ynestra King, a Conference organiser:

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Shiva thinks that because of their understanding of the diversity of life, women are the best guardians of the earth's health and have a special connection to biodiversity. Shiva believes that diversity is essential to "women's work and knowledge" since it is necessary for performing the reproductive and domestic tasks of life, which defy specialisation. Because they operate across 'sectors' and take on numerous duties, women, according to Shiva, are essential to the protection and use of biodiversity. The earth's reproductive cycles depend on the work found in areas 'in between' the interstices of sectors, according to Darwin. Women migrate across the interrelated systems that have been dangerously and mistakenly segregated from one another when the environment, particularly farmland, is split by the productive desires of capitalism. According to Shiva, "ecological stability, sustainability, and productivity are preserved under resource-scarce situations."

Although women are expected to guard precious diversity, it is precisely this that makes them so susceptible to a monoculture economy. Shiva continues by describing the various ways that the adoption of monoculture systems marginalises women, particularly those living in the rural global south. Subsistence farming's "closed cycle of production and consumption" is ultimately broken by using GMO seeds to eradicate local biodiversity. The colonial powers of the global north may extract commodity value in the form of the monoculture crop on the global market once the self-sustaining cycle is broken.

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SubQuestion No : 18

Q.18 What is the passage based on?

- Ans
- 1. Productive desires of capitalism.
 - 2. Cyclical character of women's world.
 - 3. The vulnerability of women and nature.
 - 4. Annihilation and destruction of Earth.

Question ID : 630680204156

Option 1 ID : 630680791756

Option 2 ID : 630680791757

Option 3 ID : 630680791755

Option 4 ID : 630680791758

Comprehension:

Read the given passage and answer the questions that follow.

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Shiva thinks that because of their understanding of the diversity of life, women are the best guardians of the earth's health and have a special connection to biodiversity. Shiva believes that diversity is essential to "women's work and knowledge" since it is necessary for performing the reproductive and domestic tasks of life, which defy specialisation. Because they operate across 'sectors' and take on numerous duties, women, according to Shiva, are essential to the protection and use of biodiversity. The earth's reproductive cycles depend on the work found in areas 'in between' the interstices of sectors, according to Darwin. Women migrate across the interrelated systems that have been dangerously and mistakenly segregated from one another when the environment, particularly farmland, is split by the productive desires of capitalism. According to Shiva, "ecological stability, sustainability, and productivity are preserved under resource-scarce situations."

Although women are expected to guard precious diversity, it is precisely this that makes them so susceptible to a monoculture economy. Shiva continues by describing the various ways that the adoption of monoculture systems marginalises women, particularly those living in the rural global south. Subsistence farming's "closed cycle of production and consumption" is ultimately broken by using GMO seeds to eradicate local biodiversity. The colonial powers of the global north may extract commodity value in the form of the monoculture crop on the global market once the self-sustaining cycle is broken.

In addition to the detrimental impacts of monoculture on human health, women are disproportionately disenfranchised since they are cut off from the seeds. According to Shiva, "bought seeds relegate women to unskilled work and remove them from decision-making and seed custodianship." Women farmers are being reduced to uniform hands at the plough of GMO agriculture, much as how textile workers in 19th-century Britain lost their status as artisans and became interchangeable elements of the industrial machine.

Finally, Shiva demonstrates how biotechnology firms are imitating and distorting the reproductive, cyclical character of women's work in the interest of monoculture. Women "create via diversification, whereas corporate scientists produce by uniformity", according to Shiva. Corporations now claim patents on seeds as if they were the real animals and reproducers of life, notwithstanding their antagonistic behaviours and objectives. According to Shiva, the corporate scientists' claim of the 'creation' of life is absolutely unwarranted, it is actually a halt in the life flow of creation". Women are thus not only disregarded as the guardians of ecological life in their communities as a result of the destruction of biodiversity but they are also disregarded as the creators of life due to corporate claims of godlike science.

SubQuestion No : 19

Q.19 'Ecofeminism' refers to which of the following?

- Ans**
- 1. The relation between marginalisation and biodiversity
 - 2. The relation between women and vulnerability
 - 3. The relation between ecology and protests
 - 4. The relation between women and ecology

Question ID : 630680204154

Option 1 ID : 630680791750

Option 2 ID : 630680791748

Option 3 ID : 630680791747

Option 4 ID : 630680791749

Comprehension:

Read the given passage and answer the questions that follow.

In the late 1970s and early 1980s, the feminist, peace, and ecological movements gave rise to ecofeminism, a "new word for ancient wisdom". Despite being coined by Françoise D'Eaubonne, the phrase didn't gain popularity until there were numerous protests and activities against environmental devastation, which were initially spurred by frequent ecological disasters. The first ecofeminist conference, "Women and Life on Earth: A Conference on Eco-Feminism in the Eighties", was held in March 1980 at Amherst as a result of the Three Mile Island nuclear accident. The linkages between feminism and militarization, healing and environment, and other topics were examined at this conference. According to Ynestra King, a Conference organiser:

Ecofeminism emphasises the unity and interconnectedness of theory and practice. Every living creature has a unique strength and integrity, according to this assertion. For us, the snail darter should be compared to a community's need for water, the porpoise to a desire for tuna, and any animals it might strike with Skylab. We are a movement that identifies as female, and we feel that in these dangerous times, we have a specific job to do. We view military and corporate warriors' threats of nuclear annihilation and the destruction of the earth and its inhabitants as feminist concerns.

Vandana Shiva, an ecologist, wrote her famous work on ecological feminism.

When Vandana Shiva asserts that "the marginalisation of women and the destruction of biodiversity go hand in hand", she is highlighting the similarities between environmental oppression and gendered oppression, as well as the unique position of women as being both vulnerable to monoculture capitalism and uniquely positioned to preserve biodiversity.

Shiva thinks that because of their understanding of the diversity of life, women are the best guardians of the earth's health and have a special connection to biodiversity. Shiva believes that diversity is essential to "women's work and knowledge" since it is necessary for performing the reproductive and domestic tasks of life, which defy specialisation. Because they operate across 'sectors' and take on numerous duties, women, according to Shiva, are essential to the protection and use of biodiversity. The earth's reproductive cycles depend on the work found in areas 'in between' the interstices of sectors, according to Darwin. Women migrate across the interrelated systems that have been dangerously and mistakenly segregated from one another when the environment, particularly farmland, is split by the productive desires of capitalism. According to Shiva, "ecological stability, sustainability, and productivity are preserved under resource-scarce situations."

Although women are expected to guard precious diversity, it is precisely this that makes them so susceptible to a monoculture economy. Shiva continues by describing the various ways that the adoption of monoculture systems marginalises women, particularly those living in the rural global south. Subsistence farming's "closed cycle of production and consumption" is ultimately broken by using GMO seeds to eradicate local biodiversity. The colonial powers of the global north may extract commodity value in the form of the monoculture crop on the global market once the self-sustaining cycle is broken.

In addition to the detrimental impacts of monoculture on human health, women are disproportionately disenfranchised since they are cut off from the seeds. According to Shiva, "bought seeds relegate women to unskilled work and remove them from decision-making and seed custodianship." Women farmers are being reduced to uniform hands at the plough of GMO agriculture, much as how textile workers in 19th-century Britain lost their status as artisans and became interchangeable elements of the industrial machine.

Finally, Shiva demonstrates how biotechnology firms are imitating and distorting the reproductive, cyclical character of women's work in the interest of monoculture. Women "create via diversification, whereas corporate scientists produce by uniformity", according to Shiva. Corporations now claim patents on seeds as if they were the real animals and reproducers of life, notwithstanding their antagonistic behaviours and objectives. According to Shiva, the corporate scientists' claim of the 'creation' of life is absolutely unwarranted, it is actually a halt in the life flow of creation". Women are thus not only disregarded as the guardians of ecological life in their communities as a result of the destruction of biodiversity but they are also disregarded as the creators of life due to corporate claims of godlike science.

SubQuestion No : 20

Q.20 Why diversity is essential to 'women's work in knowledge'?

- Ans
- 1. Because sustenance farming is a closed cycle of production and consumption
 - 2. Because women have to perform the reproductive and domestic tasks of life
 - 3. As women are equally vulnerable as nature
 - 4. As women migrate across the interrelated system

Question ID : 630680204157

Option 1 ID : 630680791761

Option 2 ID : 630680791762

Option 3 ID : 630680791759

Option 4 ID : 630680791760

Q.1 जो क्रिया-विशेषण किसी दूसरे शब्द से नहीं बनते, वे _____ कहलाते हैं?

- Ans
- 1. तुलनावाचक क्रिया-विशेषण
 - 2. न्यूनताबोधक क्रिया-विशेषण
 - 3. पर्याप्तिवाचक क्रिया-विशेषण
 - 4. मूल क्रिया-विशेषण

Question ID : 630680124871
Option 1 ID : 630680484290
Option 2 ID : 630680484293
Option 3 ID : 630680484292
Option 4 ID : 630680484291

Q.2 लोकोक्ति का अर्थ बतावें और उत्तर के रूप में सही विकल्प चुनें।

घर का जोगी जोगड़ा, आनगाँव का सिद्ध

- Ans
- 1. घर के जोगी पर विश्वास नहीं करना चाहिए।
 - 2. निकट का गुणी व्यक्ति कम सम्मान पाता है दूर का ज्यादा
 - 3. घर का जोगी अच्छा नहीं होता
 - 4. दूसरी जगह का जोगी अच्छा होता है।

Question ID : 630680135412
Option 1 ID : 630680524411
Option 2 ID : 630680524413
Option 3 ID : 630680524410
Option 4 ID : 630680524412

Q.3 निम्नलिखित में से कौन सा विशेषण शब्द 'अध' उपसर्ग के योग से नहीं बना है?

- Ans
- 1. आलंकारिक
 - 2. अधपका
 - 3. अधकचरा
 - 4. अधजला

Question ID : 630680183253
Option 1 ID : 630680710084
Option 2 ID : 630680710082
Option 3 ID : 630680710081
Option 4 ID : 630680710083

Q.4 'ईद का चाँद होना' मुहावरे का अर्थ है -

- Ans
- 1. बहुत दूर होना
 - 2. बहुत संपन्न होना
 - 3. बहुत कम दिखाई पड़ना
 - 4. बहुत सुंदर होना

Question ID : 630680125674
Option 1 ID : 630680487357
Option 2 ID : 630680487355
Option 3 ID : 630680487356
Option 4 ID : 630680487354

Q.5 'शशि मुझसे बहुत दूर बैठी है।' वाक्य उदाहरण है -

- Ans
- 1. परिमाणवाचक क्रियाविशेषण
 - 2. रीतिवाचक क्रियाविशेषण
 - 3. कालवाचक क्रियाविशेषण
 - 4. स्थानवाचक क्रियाविशेषण

Question ID : 63068086148
Option 1 ID : 630680334027
Option 2 ID : 630680334026
Option 3 ID : 630680334025
Option 4 ID : 630680334024

Q.6 निम्न वाक्यों में अशुद्ध वाक्य छाँटिए।

- Ans
- 1. उसकी तबीयत खराब है।
 - 2. उसकी आँख से आँसू बहते हैं।
 - 3. उसे वहाँ नौकरी मिल गई।
 - 4. यहाँ सब प्रकार के चीजें मौजूद हैं।

Question ID : 63068064768
Option 1 ID : 630680250038
Option 2 ID : 630680250041
Option 3 ID : 630680250040
Option 4 ID : 630680250039

Q.7 लोकोक्ति का अर्थ बतावें और उत्तर के रूप में सही विकल्प चुनें।

उलटा चोर कोतवाल को डाँटे

- Ans
- 1. चोर को कोतवाल पकड़ लेता है
 - 2. कसूरवार स्वयं कसूर पकड़ने वाले को डाँटे
 - 3. चोर बहुत चालाक होता है
 - 4. चोर जल्द कोतवाल की पकड़ में नहीं आता।

Question ID : 630680135421
Option 1 ID : 630680524446
Option 2 ID : 630680524447
Option 3 ID : 630680524449
Option 4 ID : 630680524448

Q.8 'माता - पिता का आशीर्वाद संतान के लिए कल्याणकारी होता है।' वाक्य में रेखांकित शब्द की सही वर्तनी है -

- Ans
- 1. आशीवार्द
 - 2. अशिवार्द
 - 3. आशीर्वाद
 - 4. आशिर्वाद

Question ID : 63068086025
Option 1 ID : 630680333548
Option 2 ID : 630680333549
Option 3 ID : 630680333550
Option 4 ID : 630680333551

Q.9 'कम बोलने वाला' वाक्यांश के लिए सर्वाधिक उपयुक्त सार्थक शब्द है-

- Ans 1. अल्पभाषी
 2. मौन
 3. शांतिप्रिय
 4. संकोची

Question ID : 63068048108
 Option 1 ID : 630680185095
 Option 2 ID : 630680185094
 Option 3 ID : 630680185096
 Option 4 ID : 630680185097

Q.10 'लाल किला एक इतिहासीक इमारत है।' वाक्य में रेखांकित शब्द की सही वर्तनी है -

- Ans 1. इतिहहासिक
 2. इतिहासिक
 3. एतिहासिक
 4. ऐतिहासिक

Question ID : 63068086024
 Option 1 ID : 630680333545
 Option 2 ID : 630680333547
 Option 3 ID : 630680333546
 Option 4 ID : 630680333544

Q.11 दिए गए वाक्यांश के लिए निम्न में से एक शब्द होगा--
जीतने की इच्छा

- Ans 1. जीवट
 2. जिगीषा
 3. जितैया
 4. जित्वर

Question ID : 630680546293
 Option 1 ID : 6306802135750
 Option 2 ID : 6306802135749
 Option 3 ID : 6306802135751
 Option 4 ID : 6306802135752

Q.12 वाक्य विन्यास की दृष्टि से शुद्ध वाक्य का चयन कीजिए-

- Ans 1. गुरु जी! नाते शिष्य के कुछ कर्त्तव्य हमारा भी है आपके प्रति।
 2. शिष्य के नाते कुछ कर्त्तव्य हमारा भी है आपके प्रति गुरु जी!!
 3. गुरु जी! शिष्य के नाते आपके प्रति कुछ कर्त्तव्य है हमारा भी।
 4. गुरु जी! शिष्य के नाते हमारा भी आपके प्रति कुछ कर्त्तव्य है।

Question ID : 630680422515
 Option 1 ID : 6306801648497
 Option 2 ID : 6306801648499
 Option 3 ID : 6306801648496
 Option 4 ID : 6306801648498

Q.13 निम्नलिखित वाक्य को उचित क्रम में लिखें।

काका बबलू अब हो गए बहुत बूढ़े हैं।

- Ans
- 1. अब बबलू काका बहुत हो गए बूढ़े हैं।
 - 2. अब बहुत बूढ़े बबलू काका हो गए हैं।
 - 3. बबलू काका अब बहुत बूढ़े हो गए हैं।
 - 4. बहुत बबलू काका अब बूढ़े हो गए हैं।

Question ID : 630680553880
Option 1 ID : 6306802165376
Option 2 ID : 6306802165377
Option 3 ID : 6306802165374
Option 4 ID : 6306802165375

Q.14 धोबी कपड़ा 'धोता है' में 'धोता है' कौन सी क्रिया है?

- Ans
- 1. अकर्मक
 - 2. सकर्मक
 - 3. संयुक्त
 - 4. सहायक

Question ID : 63068060561
Option 1 ID : 630680233694
Option 2 ID : 630680233697
Option 3 ID : 630680233696
Option 4 ID : 630680233695

Q.15 'अध्यापक ने छात्रों से पुस्तक _____।'

वाक्य में रिक्त स्थान की पूर्ति प्रेरणार्थक क्रिया द्वारा कीजिए -

- Ans
- 1. पढाई
 - 2. पढ़ेगा
 - 3. पढ़ी
 - 4. पढ़वाई

Question ID : 630680123773
Option 1 ID : 630680479974
Option 2 ID : 630680479977
Option 3 ID : 630680479975
Option 4 ID : 630680479976

Comprehension:

गद्यांश के आधार पर प्रश्न का उत्तर दें।

बहुत समय पहले, एक मनुष्य ने अकस्मात दो पत्थरों को इकट्ठा कर रगड़ा और आग पैदा की। इस प्रकार उसने एक लाभदायक खोज की; परन्तु हम इस मनुष्य का नाम नहीं जानते हैं। मनुष्य एक बेघर बिचरनेवाला प्राणी था जो कि अपने खाने की खोज में एक स्थान से दूसरे स्थान जाता रहता था। किसी ने खेती-बाड़ी की खोज की। इससे मनुष्य के रहने के ढंग में एक महान परिवर्तन आया। वह एक किसान बन गया और खेतों में अपने खाने के लिए अनाज उगाने लगा। अब उसे भोजन की खोज में इधर उधर भटकने की आवश्यकता नहीं थी। काफी समय के पश्चात किसी ने पहिये का आविष्कार किया। आजकल साईकिलें, कारें, तथा बसें इसे प्रयोग करते हैं।

SubQuestion No : 16

Q.16 मनुष्य ने इधर-उधर भटकना क्यों बंद कर दिया?

- Ans
- 1. आग के आविष्कार के कारण
 - 2. खेती-बाड़ी के कारण
 - 3. पहिये के आविष्कार के कारण
 - 4. बसों के कारण

Question ID : 630680177705

Option 1 ID : 630680688956

Option 2 ID : 630680688958

Option 3 ID : 630680688957

Option 4 ID : 630680688959

Comprehension:

गद्यांश के आधार पर प्रश्न का उत्तर दें।

बहुत समय पहले, एक मनुष्य ने अकस्मात दो पत्थरों को इकट्ठा कर रगड़ा और आग पैदा की। इस प्रकार उसने एक लाभदायक खोज की; परन्तु हम इस मनुष्य का नाम नहीं जानते हैं। मनुष्य एक बेघर बिचरनेवाला प्राणी था जो कि अपने खाने की खोज में एक स्थान से दूसरे स्थान जाता रहता था। किसी ने खेती-बाड़ी की खोज की। इससे मनुष्य के रहने के ढंग में एक महान परिवर्तन आया। वह एक किसान बन गया और खेतों में अपने खाने के लिए अनाज उगाने लगा। अब उसे भोजन की खोज में इधर उधर भटकने की आवश्यकता नहीं थी। काफी समय के पश्चात किसी ने पहिये का आविष्कार किया। आजकल साईकिलें, कारें, तथा बसें इसे प्रयोग करते हैं।

SubQuestion No : 17

Q.17 पहिये के आविष्कार का आज क्या महत्व है?

- Ans
- 1. युद्ध होने लगे।
 - 2. साईकिलों, बसों में इनका प्रयोग होने लगा।
 - 3. खेती आसान हो गई।
 - 4. भोजन मिलने लगा।

Question ID : 630680177704

Option 1 ID : 630680688955

Option 2 ID : 630680688953

Option 3 ID : 630680688952

Option 4 ID : 630680688954

Comprehension:

गद्यांश के आधार पर प्रश्न का उत्तर दें।

बहुत समय पहले, एक मनुष्य ने अकस्मात दो पत्थरों को इकट्ठा कर रगड़ा और आग पैदा की। इस प्रकार उसने एक लाभदायक खोज की; परन्तु हम इस मनुष्य का नाम नहीं जानते हैं। मनुष्य एक बेघर बिचरनेवाला प्राणी था जो कि अपने खाने की खोज में एक स्थान से दूसरे स्थान जाता रहता था। किसी ने खेती-बाड़ी की खोज की। इससे मनुष्य के रहने के ढंग में एक महान परिवर्तन आया। वह एक किसान बन गया और खेतों में अपने खाने के लिए अनाज उगाने लगा। अब उसे भोजन की खोज में इधर उधर भटकने की आवश्यकता नहीं थी। काफी समय के पश्चात किसी ने पहिये का आविष्कार किया। आजकल साईकिलें, कारें, तथा बसें इसे प्रयोग करते हैं।

SubQuestion No : 18

Q.18 इनमें से बहुत समय पहले मनुष्य द्वारा किए गए खोजों और आविष्कारों के नाम क्या है?

- Ans
- 1. पानी
 - 2. जल
 - 3. आग
 - 4. खेत

Question ID : 630680177702

Option 1 ID : 630680688945

Option 2 ID : 630680688947

Option 3 ID : 630680688944

Option 4 ID : 630680688946

Comprehension:

गद्यांश के आधार पर प्रश्न का उत्तर दें।

बहुत समय पहले, एक मनुष्य ने अकस्मात दो पत्थरों को इकट्ठा कर रगड़ा और आग पैदा की। इस प्रकार उसने एक लाभदायक खोज की; परन्तु हम इस मनुष्य का नाम नहीं जानते हैं। मनुष्य एक बेघर बिचरनेवाला प्राणी था जो कि अपने खाने की खोज में एक स्थान से दूसरे स्थान जाता रहता था। किसी ने खेती-बाड़ी की खोज की। इससे मनुष्य के रहने के ढंग में एक महान परिवर्तन आया। वह एक किसान बन गया और खेतों में अपने खाने के लिए अनाज उगाने लगा। अब उसे भोजन की खोज में इधर उधर भटकने की आवश्यकता नहीं थी। काफी समय के पश्चात किसी ने पहिये का आविष्कार किया। आजकल साईकिलें, कारें, तथा बसें इसे प्रयोग करते हैं।

SubQuestion No : 19

Q.19 मनुष्य के रहने के ढंग में किसने महत्वपूर्ण बदलाव किया?

- Ans
- 1. पहिये ने
 - 2. आग ने
 - 3. खेती-बाड़ी ने
 - 4. साईकिलों ने

Question ID : 630680177703

Option 1 ID : 630680688948

Option 2 ID : 630680688949

Option 3 ID : 630680688950

Option 4 ID : 630680688951

Comprehension:

गद्यांश के आधार पर प्रश्न का उत्तर दें।

बहुत समय पहले, एक मनुष्य ने अकस्मात दो पत्थरों को इकट्ठा कर रगड़ा और आग पैदा की। इस प्रकार उसने एक लाभदायक खोज की; परन्तु हम इस मनुष्य का नाम नहीं जानते हैं। मनुष्य एक बेघर बिचरनेवाला प्राणी था जो कि अपने खाने की खोज में एक स्थान से दूसरे स्थान जाता रहता था। किसी ने खेती-बाड़ी की खोज की। इससे मनुष्य के रहने के ढंग में एक महान परिवर्तन आया। वह एक किसान बन गया और खेतों में अपने खाने के लिए अनाज उगाने लगा। अब उसे भोजन की खोज में इधर उधर भटकने की आवश्यकता नहीं थी। काफी समय के पश्चात किसी ने पहिये का आविष्कार किया। आजकल साईकिलें, कारें, तथा बसें इसे प्रयोग करते हैं।

SubQuestion No : 20

Q.20 मनुष्य कैसा प्राणी था?

- Ans
- 1. अहिंसक
 - 2. बेघर बिचरने वाला
 - 3. हिंसक
 - 4. शांत

Question ID : 630680177706

Option 1 ID : 630680688961

Option 2 ID : 630680688962

Option 3 ID : 630680688960

Option 4 ID : 630680688963

Section : Discipline1

Q.1 Which of the following is correct about the identification of cohesive non swelling soil (CNS) material for lining of canals on an expansive soil?

- Ans
- 1. The permissible deformation of the CNS layer is 50 mm.
 - 2. In exceptional cases, swelling pressure of CNS soil less than 10 kN/m² is acceptable.
 - 3. The CNS material has gravel content greater than 30%
 - 4. The soil with liquid limit less than 30% and plasticity index less than 15% is considered as suitable.

Question ID : 630680144461

Option 1 ID : 630680558911

Option 2 ID : 630680558912

Option 3 ID : 630680558910

Option 4 ID : 630680558913

Q.2 Which of the following statements is correct about a voltage follower circuit?

- Ans
- 1. It has very high output impedance.
 - 2. It has a closed loop voltage gain of 1.
 - 3. It is a special case of inverting amplifier.
 - 4. It has very low input impedance.

Question ID : 630680333346

Option 1 ID : 6306801296658

Option 2 ID : 6306801296659

Option 3 ID : 6306801296660

Option 4 ID : 6306801296657

Q.3 Which of the following is an example of a naturally occurring polymer?

- Ans 1. PVC (Polyvinyl chloride)
 2. Starch
 3. Polystyrene
 4. Polyethylene

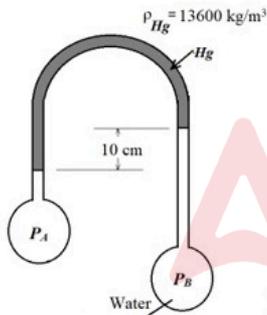
Question ID : 630680876288
 Option 1 ID : 6306803431920
 Option 2 ID : 6306803431921
 Option 3 ID : 6306803431922
 Option 4 ID : 6306803431919

Q.4 The softest and most ductile form of steel can be obtained by _____ process.

- Ans 1. annealing
 2. spheroidizing
 3. tempering
 4. normalising

Question ID : 630680121407
 Option 1 ID : 630680470588
 Option 2 ID : 630680470587
 Option 3 ID : 630680470589
 Option 4 ID : 630680470586

Q.5 Determine $P_A - P_B$ (in Pascal) in the inverted U-tube differential manometer shown in the following figure. Specific weight of water is given as 9810 N/m^3 . Specific gravity of Hg is 13.6. Acceleration due to gravity (g) = 9.81 m/s^2 .



- Ans 1. -14832.7
 2. -17304.8
 3. -12360.6
 4. -9270.5

Question ID : 63068082852
 Option 1 ID : 630680321274
 Option 2 ID : 630680321275
 Option 3 ID : 630680321273
 Option 4 ID : 630680321272

Q.6 Heisenberg's principle involving the position and the momentum is given by $\Delta p_x \Delta x > h/4\pi$, where 'h' is Planck's constant. What will be the minimum uncertainty in the momentum of an electron if the uncertainty in its position is 80 pm?

- Ans
- 1. $5.45 \times 10^{-25} \text{ kgms}^{-1}$
 - 2. $5.27 \times 10^{-25} \text{ kgms}^{-1}$
 - 3. $6.59 \times 10^{-25} \text{ kgms}^{-1}$
 - 4. $6.23 \times 10^{-25} \text{ kgms}^{-1}$

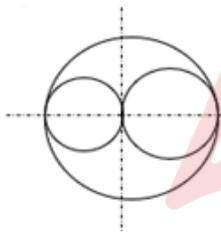
Question ID : 630680876314
 Option 1 ID : 6306803432026
 Option 2 ID : 6306803432024
 Option 3 ID : 6306803432025
 Option 4 ID : 6306803432023

Q.7 'Pressure' is:

- Ans
- 1. an intensive property only
 - 2. an extensive property only
 - 3. neither an extensive nor an intensive property
 - 4. either an extensive or an intensive property

Question ID : 630680183258
 Option 1 ID : 630680710102
 Option 2 ID : 630680710101
 Option 3 ID : 630680710104
 Option 4 ID : 630680710103

Q.8 The Mohr's circle for triaxial loading is represented by the figure given below. The diameters of the circles are 20 MPa, 30 MPa and 50 MPa. The magnitude of maximum shear stress is _____.



- Ans
- 1. 15 MPa
 - 2. 50 MPa
 - 3. 25 MPa
 - 4. 30 MPa

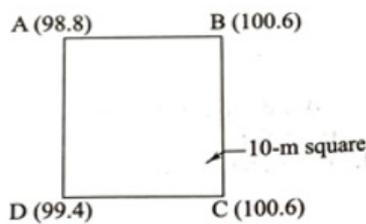
Question ID : 630680164070
 Option 1 ID : 630680635417
 Option 2 ID : 630680635418
 Option 3 ID : 630680635416
 Option 4 ID : 630680635419

Q.9 Two sources of intensity I and $4I$ are used in an interference experiment and the resultant intensity of $5I$ is obtained, with the phase difference of:

- Ans
- ✓ 1. $\pi/2$
 - ✗ 2. π
 - ✗ 3. 2π
 - ✗ 4. 0

Question ID : 630680876300
 Option 1 ID : 6306803431969
 Option 2 ID : 6306803431968
 Option 3 ID : 6306803431970
 Option 4 ID : 6306803431967

Q.10 In the given figure, the contour line of elevation 100 m will intersect AB at a distance of _____.



- Ans
- ✓ 1. 6.67 m from A
 - ✗ 2. 5.7 m from A
 - ✗ 3. 7.5 m from A
 - ✗ 4. 7.25 m from A

Question ID : 630680134283
 Option 1 ID : 630680519979
 Option 2 ID : 630680519978
 Option 3 ID : 630680519981
 Option 4 ID : 630680519980

Q.11 Through how many maximum members can the imaginary sections drawn in the method of sections used for analysis of trusses pass? Consider that the members will not meet at a common point.

- Ans
- ✓ 1. 3
 - ✗ 2. 4
 - ✗ 3. 2
 - ✗ 4. 1

Question ID : 630680103972
 Option 1 ID : 630680404105
 Option 2 ID : 630680404106
 Option 3 ID : 630680404104
 Option 4 ID : 630680404103

Q.12 As per Fleming's Right Hand Rule, the thumb indicates the _____.

- Ans
- 1. induced EMF
 - 2. motion of the conductor
 - 3. Lorentz force
 - 4. change in the magnetic field

Question ID : 630680340720
 Option 1 ID : 6306801325323
 Option 2 ID : 6306801325321
 Option 3 ID : 6306801325324
 Option 4 ID : 6306801325322

Q.13 The value of $\lim_{z \rightarrow -i} \frac{iz^3+1}{z^2+1} = ?$

- Ans
- 1. $\frac{5}{2}$
 - 2. $\frac{7}{2}$
 - 3. $\frac{3}{2}$
 - 4. $\frac{1}{2}$

Question ID : 63068093989
 Option 1 ID : 630680364653
 Option 2 ID : 630680364654
 Option 3 ID : 630680364652
 Option 4 ID : 630680364651

Q.14 Which communication model is commonly used in radio communication, where the transmission occurs in one direction only?

- Ans
- 1. Simplex
 - 2. Full-duplex
 - 3. Half-duplex
 - 4. Multiplex

Question ID : 630680876182
 Option 1 ID : 6306803431495
 Option 2 ID : 6306803431497
 Option 3 ID : 6306803431496
 Option 4 ID : 6306803431498

Q.15 A current meter is used to measure the _____.

- Ans
- 1. depth
 - 2. velocity
 - 3. discharge
 - 4. time

Question ID : 63068099874
 Option 1 ID : 630680388193
 Option 2 ID : 630680388192
 Option 3 ID : 630680388195
 Option 4 ID : 630680388194

Q.16 _____ is obtained when the plane is kept parallel to any projection plane.

- Ans 1. True shape
 2. Apparent shape
 3. Line shape
 4. Oblique shape

Question ID : 630680876148
 Option 1 ID : 6306803431360
 Option 2 ID : 6306803431359
 Option 3 ID : 6306803431362
 Option 4 ID : 6306803431361

Q.17 Select the examples of shallow foundations from the following.

1. Pile foundation
2. Strip foundation
3. Raft foundation
4. Pier foundation

- Ans 1. Only 2 and 3
 2. Only 1 and 4
 3. Only 2
 4. Only 4

Question ID : 630680876238
 Option 1 ID : 6306803431720
 Option 2 ID : 6306803431721
 Option 3 ID : 6306803431719
 Option 4 ID : 6306803431722

Q.18 Which among the following is the largest unit of area?

- Ans 1. square inch
 2. Square yard
 3. Square meter
 4. Square feet

Question ID : 630680876222
 Option 1 ID : 6306803431658
 Option 2 ID : 6306803431656
 Option 3 ID : 6306803431655
 Option 4 ID : 6306803431657

Q.19 The standard single axle load used for the pavement design is _____.

- Ans 1. 70 kN
 2. 80 kN
 3. 90 kN
 4. 100 kN

Question ID : 630680157936
 Option 1 ID : 630680611272
 Option 2 ID : 630680611273
 Option 3 ID : 630680611274
 Option 4 ID : 630680611275

Q.20 When two aerial photographs of adjacent areas with _____ per cent longitudinal overlap are superimposed, a 3D view of the area can be observed under the stereoscope, which helps in the interpretation of the geomorphology and geology of a project site.

- Ans
- 1. 35-45
 - 2. 15-25
 - 3. 85-95
 - 4. 55-65

Question ID : 630680876207
 Option 1 ID : 6306803431596
 Option 2 ID : 6306803431595
 Option 3 ID : 6306803431598
 Option 4 ID : 6306803431597

Section : Discipline2

Q.1 A beam is connected to the flange of a column section by means of a welded unstiffened seated connection. The length of the seat angle required will be decided on the basis of the _____.

- Ans
- 1. length calculated as per the bearing strength required
 - 2. width of the flange of the column
 - 3. width of the flange of the beam
 - 4. length of weld required for connecting the seat angle to the column flange

Question ID : 630680219822
 Option 1 ID : 630680853168
 Option 2 ID : 630680853169
 Option 3 ID : 630680853170
 Option 4 ID : 630680853167

Q.2 The ratio of formation loss to the total drawdown measured inside the well is known as _____.

- Ans
- 1. well efficiency
 - 2. barometric efficiency
 - 3. trap efficiency
 - 4. hydraulic efficiency

Question ID : 63068099868
 Option 1 ID : 630680388170
 Option 2 ID : 630680388169
 Option 3 ID : 630680388168
 Option 4 ID : 630680388171

Q.3 In which of the following cases is the night visibility more?

- Ans
- 1. Light-coloured rough-textured surface
 - 2. Pavement surface with a smooth texture
 - 3. Black top surface
 - 4. It does not depend on the colour of the pavement.

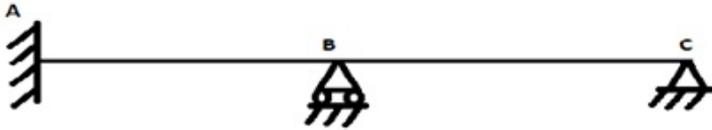
Question ID : 630680157919
 Option 1 ID : 630680611207
 Option 2 ID : 630680611204
 Option 3 ID : 630680611205
 Option 4 ID : 630680611206

Q.4 In surveying, profile levelling uses the principle of _____.

- Ans
- 1. reciprocal levelling
 - 2. block levelling
 - 3. differential levelling
 - 4. tachometric levelling

Question ID : 630680121678
 Option 1 ID : 630680471665
 Option 2 ID : 630680471664
 Option 3 ID : 630680471663
 Option 4 ID : 630680471662

Q.5 Calculate the degree of freedom for the given beam.



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

Question ID : 63068082444
 Option 1 ID : 630680319816
 Option 2 ID : 630680319818
 Option 3 ID : 630680319817
 Option 4 ID : 630680319819

Q.6 The estimated cost for a 2 cm premix carpeting a road of 1.5 km length having a width of 7 m at the rate of ₹7 per unit with 7% overhead charges is _____.

- Ans
- 1. ₹15,730
 - 2. ₹7,865
 - 3. ₹78,645
 - 4. ₹1,573

Question ID : 63068099199
 Option 1 ID : 630680385501
 Option 2 ID : 630680385503
 Option 3 ID : 630680385502
 Option 4 ID : 630680385500

Q.7 On which of the following theories is Culmann's graphical method based?

- Ans
- 1. Rankine's theory
 - 2. Terzaghi's theory
 - 3. Hansen's theory
 - 4. Coulomb's theory

Question ID : 630680159093
 Option 1 ID : 630680615840
 Option 2 ID : 630680615843
 Option 3 ID : 630680615842
 Option 4 ID : 630680615841

Q.8 Which apparatus is commonly used for accurate measurement of volumes in volumetric analysis?

- Ans
- 1. Conical flask
 - 2. Wire gauze
 - 3. Burette
 - 4. Test tube

Question ID : 630680876274
 Option 1 ID : 6306803431863
 Option 2 ID : 6306803431866
 Option 3 ID : 6306803431864
 Option 4 ID : 6306803431865

Q.9 A triangular prism is resting on HP. Resting edge is perpendicular to the reference line. The shapes of the top view, front view and side view, respectively, are _____.

- Ans
- 1. square, rectangle and triangle
 - 2. rectangle, square and triangle
 - 3. triangle, triangle and triangle
 - 4. triangle, rectangle and rectangle

Question ID : 630680876150
 Option 1 ID : 6306803431367
 Option 2 ID : 6306803431370
 Option 3 ID : 6306803431368
 Option 4 ID : 6306803431369

Q.10 Which of the following statements conform(s) to Random Rubble masonry?

1. Stones are laid in courses.
2. Stones are not chisel dressed.
3. Joints should be packed with chips and pieces.
4. Tothing of stonework on joints are mandatory.

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

Question ID : 630680876242
 Option 1 ID : 6306803431738
 Option 2 ID : 6306803431735
 Option 3 ID : 6306803431737
 Option 4 ID : 6306803431736

Q.11 As per Unified Soil Classification System, clayey soil with low plasticity has a liquid limit value which is:

- Ans
- 1. less than 50%
 - 2. greater than 50%
 - 3. less than 35%
 - 4. greater than 35%

Question ID : 630680114691
 Option 1 ID : 630680444132
 Option 2 ID : 630680444133
 Option 3 ID : 630680444130
 Option 4 ID : 630680444131

Q.12 Which of the following is a recently developed material for strengthening reinforced concrete and masonry structures subjected to earthquakes?

- Ans
- 1. Durable concrete
 - 2. Fibre-reinforced plastic
 - 3. Lightweight concrete
 - 4. High-density concrete

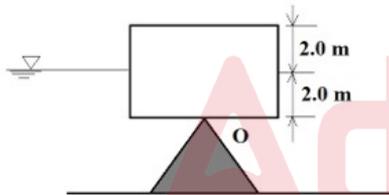
Question ID : 630680876131
 Option 1 ID : 6306803431294
 Option 2 ID : 6306803431293
 Option 3 ID : 6306803431291
 Option 4 ID : 6306803431292

Q.13 Determine the expenditure incurred for the cement concrete required to pave a 1 km stretch of road, measuring 5 m in width and requiring a 10 cm thick layer, given a rate of ₹3,500.00 per m³.

- Ans
- 1. ₹16.5 crore
 - 2. ₹17.5 lakh
 - 3. ₹17.5 crore
 - 4. ₹1,75,000.00

Question ID : 630680876215
 Option 1 ID : 6306803431630
 Option 2 ID : 6306803431629
 Option 3 ID : 6306803431628
 Option 4 ID : 6306803431627

Q.14 Determine torque (in KN-m) necessary to hold the square prism gate, which is 3 m long and hinged at midpoint O as shown in the following figure. Consider only hydrostatic and buoyancy forces. Specific weight of water = 9810 N/m³.



- Ans
- 1. 127.4
 - 2. 254.8
 - 3. 212.33
 - 4. 169.87

Question ID : 63068082857
 Option 1 ID : 630680321292
 Option 2 ID : 630680321295
 Option 3 ID : 630680321293
 Option 4 ID : 630680321294

Q.15 Which of the following is a property of fiberglass?

- Ans
- 1. Non-resistance to heat
 - 2. Flammability
 - 3. High strength-to-weight ratio
 - 4. Organic nature

Question ID : 630680876316
Option 1 ID : 6306803432031
Option 2 ID : 6306803432032
Option 3 ID : 6306803432033
Option 4 ID : 6306803432034

Q.16 Which of the following statements is true, if a bar of material 'X' is placed on a table and is subjected to change in temperature T?

- Ans
- 1. If the elongation is constrained the material experiences compressive stress and strain.
 - 2. If the elongation or contraction is constrained, despite the fact that it undergoes a strain, the material does not feel any stress.
 - 3. If the elongation or contraction is not restricted, despite the fact that it undergoes a strain, the material does not suffer any stress.
 - 4. If the elongation is not constrained, the material experiences tensile stress and strain.

Question ID : 630680177195
Option 1 ID : 630680686971
Option 2 ID : 630680686969
Option 3 ID : 630680686968
Option 4 ID : 630680686970

Q.17 The rate of change of enthalpy with respect to entropy at constant pressure for a perfect gas:

- Ans
- 1. increases as T increases
 - 2. first increases then decreases as T increases
 - 3. decreases as T increases
 - 4. is independent of temperature (T)

Question ID : 630680144880
Option 1 ID : 630680560559
Option 2 ID : 630680560561
Option 3 ID : 630680560560
Option 4 ID : 630680560558

Q.18 Which term describes the part of an operating system responsible for managing the allocation and deallocation of memory resources?

- Ans
- 1. Memory manager
 - 2. Scheduler
 - 3. Kernel
 - 4. File system

Question ID : 630680876172
Option 1 ID : 6306803431458
Option 2 ID : 6306803431455
Option 3 ID : 6306803431457
Option 4 ID : 6306803431456

Q.19

If X and Y are two jointly continuous random variables with joint PDF $f_{xy}(x, y) = \begin{cases} \frac{x^2}{a}(a + y^2); 0 \leq x, y \leq 1 \\ 0, \text{ else} \end{cases}$, then a = _____.

Ans

✓ 1. $\frac{1}{6}$

✗ 2. $\frac{10}{3}$

✗ 3. $-\frac{5}{3}$

✗ 4. $-\frac{1}{3}$

Question ID : 63068093931
Option 1 ID : 630680364422
Option 2 ID : 630680364419
Option 3 ID : 630680364421
Option 4 ID : 630680364420

Q.20 The design load on a short, axially loaded compression member can be determined by using the IS code formula for 300 mm² column, which is applicable if the eccentricity is less than:

Ans ✗ 1. 10 mm

✓ 2. 15 mm

✗ 3. 25 mm

✗ 4. 20 mm

Question ID : 630680206800
Option 1 ID : 630680801802
Option 2 ID : 630680801801
Option 3 ID : 630680801799
Option 4 ID : 630680801800

Section : Discipline3

Q.1 On account of the action of gravity on the liquid, the axis of the bubble tube _____ when the bubble is central in a theodolite.

Ans ✗ 1. may be horizontal or tangential

✓ 2. is horizontal

✗ 3. is vertical

✗ 4. is inclined

Question ID : 630680121668
Option 1 ID : 630680471625
Option 2 ID : 630680471623
Option 3 ID : 630680471622
Option 4 ID : 630680471624

Q.2 As per IRC, the minimum width of the sidewalk of a road is _____.

- Ans
- 1. 1.3 m
 - 2. 1.4 m
 - 3. 1.5 m
 - 4. 1.2 m

Question ID : 630680157917
 Option 1 ID : 630680611197
 Option 2 ID : 630680611198
 Option 3 ID : 630680611199
 Option 4 ID : 630680611196

Q.3 The given results were obtained from a standard compaction test on a sample of soil.

Water Content %	0.12	0.14
Mass of wet soil gm	1650	1850

The volume of the mould used was 950 ml. Calculate the change in dry density of soil sample.

- Ans
- 1. 3.258 gm/ml
 - 2. 1.55 gm/ml
 - 3. 1.708 gm/ml
 - 4. 0.158 gm/ml

Question ID : 630680133882
 Option 1 ID : 630680518465
 Option 2 ID : 630680518463
 Option 3 ID : 630680518462
 Option 4 ID : 630680518464

Q.4 The rainfall to have an average intensity of excess rainfall of 1/D cm/h for the duration D-hour of the storm is called _____.

- Ans
- 1. flood hydrograph
 - 2. unit hydrograph
 - 3. direct runoff hydrograph
 - 4. s curve

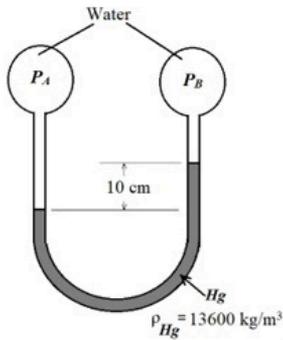
Question ID : 630680132466
 Option 1 ID : 630680512998
 Option 2 ID : 630680513001
 Option 3 ID : 630680512999
 Option 4 ID : 630680513000

Q.5 Description: No visible sign of weathering. Rock is fresh and crystal bright. Few discontinuities with slight weathering.
 The above description belongs to which weathering grade as per ISRM, 1978?

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

Question ID : 630680876206
 Option 1 ID : 6306803431591
 Option 2 ID : 6306803431592
 Option 3 ID : 6306803431593
 Option 4 ID : 6306803431594

Q.6 Determine $P_A - P_B$ (in Pascal) in a U-tube differential manometer as shown in the following figure. Specific weight of water is given as 9810 N/m^3 . Specific gravity of Hg is 13.6. Acceleration due to gravity (g) = 9.81 m/s^2 .



- Ans 1. 12360.6
 2. 17304.8
 3. 14832.7
 4. 19776.9

Question ID : 63068082851
 Option 1 ID : 630680321268
 Option 2 ID : 630680321270
 Option 3 ID : 630680321269
 Option 4 ID : 630680321271

Q.7 Match the various overhead charges with their approximate percentage of estimated cost in building estimation.

A	Tools and plants	I	10% to 15%
B	Contingency	II	1% to 1.5%
C	Supervision charges	III	1.5% to 2%
D	Work-charged establishment	IV	3% to 5%

- Ans 1. A-II, B-IV, C-I, D-III
 2. A-II, B-III, C-IV, D-I
 3. A-II, B-IV, C-III, D-I
 4. A-IV, B-I, C-II, D-III

Question ID : 63068099197
 Option 1 ID : 630680385492
 Option 2 ID : 630680385495
 Option 3 ID : 630680385493
 Option 4 ID : 630680385494

Q.8 Which of the following options represents the Barkhausen criterion for sustained oscillations?

- Ans 1. The magnitude of the loop gain is equal to zero.
 2. The magnitude of the loop gain is equal to unity.
 3. The loop phase shift is 180° .
 4. The magnitude of the loop gain is less than unity.

Question ID : 630680332271
 Option 1 ID : 6306801292527
 Option 2 ID : 6306801292526
 Option 3 ID : 6306801292528
 Option 4 ID : 6306801292525

Q.9 In a system with two components, Which of the following is the maximum number of phases that can coexist in equilibrium at a given pressure and temperature, according to the phase rule?

- Ans
- 1. 15
 - 2. 20
 - 3. 2
 - 4. 4

Question ID : 630680876285
 Option 1 ID : 6306803431907
 Option 2 ID : 6306803431908
 Option 3 ID : 6306803431910
 Option 4 ID : 6306803431909

Q.10 A prismatic bar is acted up on by two co-axial forces of magnitude F and $2F$, as shown in the figure below.



The amount of stress induced is _____.

- Ans
- 1. $2F/A$
 - 2. $3F/A$
 - 3. F/A
 - 4. 0

Question ID : 630680164065
 Option 1 ID : 630680635396
 Option 2 ID : 630680635399
 Option 3 ID : 630680635397
 Option 4 ID : 630680635398

Q.11 Which of the following statements is correct?

- Ans
- 1. Compressibility factor is zero for ideal gases.
 - 2. Compressibility factor is >1 for ideal gases.
 - 3. Compressibility factor is unity for ideal gases.
 - 4. Compressibility factor is <1 for ideal gases.

Question ID : 630680116731
 Option 1 ID : 630680452210
 Option 2 ID : 630680452212
 Option 3 ID : 630680452211
 Option 4 ID : 630680452213

Q.12 Which of the following types of floorings is made of small pieces of tiles and marbles arranged in patterns?

- Ans
- 1. Cork flooring
 - 2. Linoleum flooring
 - 3. Flagstone flooring
 - 4. Mosaic flooring

Question ID : 630680876255
 Option 1 ID : 6306803431789
 Option 2 ID : 6306803431787
 Option 3 ID : 6306803431790
 Option 4 ID : 6306803431788

Q.13 For a balanced section, the relation between the depth of neutral axis (x_u) and the limiting depth of neural axis ($x_{u,lim}$) is given by:

Ans 1.

Depth of neutral axis (x_u) < Limiting depth of neural axis ($x_{u,lim}$)

2.

Depth of neutral axis (x_u) > Limiting depth of neural axis ($x_{u,lim}$)

3.

Depth of neutral axis (x_u) = Limiting depth of neural axis ($x_{u,lim}$)

4.

Depth of neutral axis (x_u) $\leq = \leq$ Limiting depth of neural axis ($x_{u,lim}$)

Question ID : 630680206772

Option 1 ID : 630680801689

Option 2 ID : 630680801688

Option 3 ID : 630680801687

Option 4 ID : 630680801690

Q.14 A building with a simple plan but lack of symmetry in the columns or walls or an irregularity in the elevation produces _____.

Ans 1. bending effects

2. sliding effects

3. overturning effects

4. torsional effects

Question ID : 630680876119

Option 1 ID : 6306803431244

Option 2 ID : 6306803431243

Option 3 ID : 6306803431246

Option 4 ID : 6306803431245

Q.15 In spillways, the entrance structure that leads the reservoir water up to the control structure is called:

Ans 1. chute channel

2. control structure

3. approach channel of the chute spillway

4. discharge channel

Question ID : 630680144954

Option 1 ID : 630680560854

Option 2 ID : 630680560857

Option 3 ID : 630680560855

Option 4 ID : 630680560856

Q.16 Which of the following devices operates at the Network Layer (Layer 3) of the OSI model?

Ans 1. Hub

2. Bridge

3. Switch

4. Router

Question ID : 630680876178

Option 1 ID : 6306803431481

Option 2 ID : 6306803431482

Option 3 ID : 6306803431479

Option 4 ID : 6306803431480

Q.17 If 'f' is a continuous function on [a, b], then the function 'g', defined as an anti-derivative of 'f', that is, $g'(x) = f(x) = ?$

Ans

✗ 1. $\frac{d}{dt} \int_a^b f(x) dx$

✗ 2. $\frac{d}{dt} \int_a^x f(t) dt$

✓ 3. $\frac{d}{dx} \int_a^x f(t) dt$

✗ 4. $\frac{d}{dx} \int_a^b f(t) dt$

Question ID : 630680206269

Option 1 ID : 630680799873

Option 2 ID : 630680799871

Option 3 ID : 630680799872

Option 4 ID : 630680799874

Q.18 If the flexibility matrix of a beam element is given by $\frac{L^3}{6EI} \begin{bmatrix} 2 & 5 \\ 5 & 16 \end{bmatrix}$, then determine its stiffness matrix.

Ans

✗ 1. $\frac{6EI}{7L^3} \begin{bmatrix} -16 & -5 \\ -5 & -2 \end{bmatrix}$

✗ 2. $\frac{6L^3}{7EI} \begin{bmatrix} 16 & -5 \\ -5 & 2 \end{bmatrix}$

✗ 3. $\frac{6L^3}{7EI} \begin{bmatrix} 16 & -5 \\ -5 & 2 \end{bmatrix}$

✓ 4. $\frac{6EI}{7L^3} \begin{bmatrix} 16 & -5 \\ -5 & 2 \end{bmatrix}$

Question ID : 630680133176

Option 1 ID : 630680515691

Option 2 ID : 630680515692

Option 3 ID : 630680515690

Option 4 ID : 630680515693

Q.19 Calculate the capitalised value of a property that generates a net annual income of ₹1,050.00 after deducting all the expenses, given an annual interest rate of 4%.

Ans

✗ 1. ₹42.00

✓ 2. ₹26,250.00

✗ 3. ₹4,200.00

✗ 4. ₹350.00

Question ID : 630680876232

Option 1 ID : 6306803431698

Option 2 ID : 6306803431695

Option 3 ID : 6306803431696

Option 4 ID : 6306803431697

Q.20 When the front and top views are inadequate to convey all the information regarding an object, additional views are projected onto other planes referred to as _____.

- Ans
- 1. horizontal and vertical plane
 - 2. auxiliary vertical plane
 - 3. auxiliary plane
 - 4. auxiliary inclined plane

Question ID : 630680876146
 Option 1 ID : 6306803431354
 Option 2 ID : 6306803431351
 Option 3 ID : 6306803431353
 Option 4 ID : 6306803431352

Section : Discipline4

Q.1 What does the abbreviation 'XPM' stand for, in the context of steelworks?

- Ans
- 1. Extra Performance Material
 - 2. Extra per Metal
 - 3. Extremely Precise Manufacturing
 - 4. Expanded Metal

Question ID : 630680876220
 Option 1 ID : 6306803431648
 Option 2 ID : 6306803431650
 Option 3 ID : 6306803431649
 Option 4 ID : 6306803431647

Q.2 In levelling, line of collimation is known as _____.

- Ans
- 1. tangential line of sight
 - 2. line perpendicular to the longitudinal curve of the bubble tube at its midpoint
 - 3. line joining the intersection of the cross-hairs to the optical centre of the objective and its continuation
 - 4. line joining the optical centre of objective and plumb line

Question ID : 630680121666
 Option 1 ID : 630680471614
 Option 2 ID : 630680471617
 Option 3 ID : 630680471615
 Option 4 ID : 630680471616

Q.3 A conductivity cell has a cell constant of 0.03 cm^{-1} . If the resistance of the solution in the cell is 30 ohms, which of the following is the conductivity of the solution?

- Ans
- 1. 0.0009 S/cm
 - 2. 900 S/cm
 - 3. 0.001 S/cm
 - 4. 0.09 S/cm

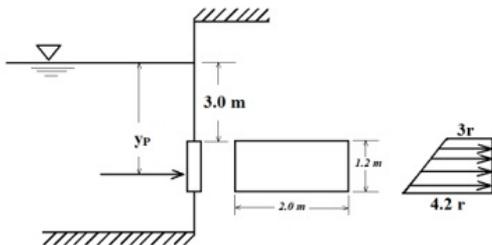
Question ID : 630680876281
 Option 1 ID : 6306803431893
 Option 2 ID : 6306803431894
 Option 3 ID : 6306803431891
 Option 4 ID : 6306803431892

Q.4 Anchor piles are used _____.

- Ans 1. to provide anchorage against horizontal pull from sheet piling or other pulling forces
 2. in bulkheads or cut-offs to reduce seepage and uplift in hydraulic structures
 3. to transfer loads through the pile tip to a suitable bearing stratum, passing soft soil or water
 4. to transfer loads to a depth in a frictional material by means of skin friction along the surface area of the pile

Question ID : 630680201884
 Option 1 ID : 630680782883
 Option 2 ID : 630680782886
 Option 3 ID : 630680782884
 Option 4 ID : 630680782885

Q.5 A vertical rectangular gate has water on one side as shown in the following figure. Determine the location of centre of the pressure in meter.



- Ans 1. 1.81
 2. 0.91
 3. 2.72
 4. 3.63

Question ID : 63068082849
 Option 1 ID : 630680321261
 Option 2 ID : 630680321260
 Option 3 ID : 630680321262
 Option 4 ID : 630680321263

Q.6 What is the correct arrangement of Polypropylene, Steel, Glass and Carbon fibres in the increasing order of their Young's modulus?

- Ans 1. Glass < Polypropylene < Steel < Carbon
 2. Glass < Polypropylene < Carbon < Steel
 3. Polypropylene < Glass < Steel < Carbon
 4. Polypropylene < Glass < Carbon < Steel

Question ID : 630680211445
 Option 1 ID : 630680819928
 Option 2 ID : 630680819930
 Option 3 ID : 630680819927
 Option 4 ID : 630680819929

Q.7 Determine the design discharge at the outlet of a canal, the culturable command area of which is 1000 hectares. The cropping intensities of sugarcane and wheat are 30% and 40%, respectively. The duties of each crop at the head of the canal are 850 hectares/cumec and 1500 hectares/cumec, respectively.

- Ans
- 1. 0.555 cumec
 - 2. 0.619 cumec
 - 3. 0.852 cumec
 - 4. 0.525 cumec

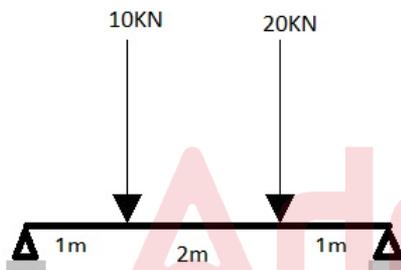
Question ID : 63068079227
 Option 1 ID : 630680306948
 Option 2 ID : 630680306947
 Option 3 ID : 630680306946
 Option 4 ID : 630680306945

Q.8 Which of the following is an example of an igneous rock?

- Ans
- 1. Phyllite
 - 2. Marble
 - 3. Aplite
 - 4. Dolomite

Question ID : 630680876191
 Option 1 ID : 6306803431534
 Option 2 ID : 6306803431532
 Option 3 ID : 6306803431533
 Option 4 ID : 6306803431531

Q.9 A simply supported beam of length 4 m carries the point loads as shown in figure.



The bending moment at the mid-span is _____ KN-m.

- Ans
- 1. 15
 - 2. 30
 - 3. 10
 - 4. 25

Question ID : 630680101155
 Option 1 ID : 630680393140
 Option 2 ID : 630680393142
 Option 3 ID : 630680393143
 Option 4 ID : 630680393141

Q.10 Consider the following assertion and reason and select the correct option.
Assertion: In a Jack arch floor, steel tie rods are placed at the end span.
Reason: It is to counteract the compression developed at the supports due to arch action.

- Ans**
- 1. The Assertion is true, but the Reason is false.
 - 2. The Assertion is false, but the Reason is true.
 - 3. Both the Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.
 - 4. Both the Assertion and Reason are true, and the Reason is the correct explanation of the Assertion.

Question ID : 630680876257
 Option 1 ID : 6306803431797
 Option 2 ID : 6306803431798
 Option 3 ID : 6306803431796
 Option 4 ID : 6306803431795

Q.11 In an orthographic projection, if a straight line is parallel to the frontal plane and inclined to the profile plane, how is its projection represented on the frontal plane?

- Ans**
- 1. As an ellipse
 - 2. As a line
 - 3. As a point
 - 4. As a curve

Question ID : 630680876144
 Option 1 ID : 6306803431345
 Option 2 ID : 6306803431346
 Option 3 ID : 6306803431343
 Option 4 ID : 6306803431344

Q.12 A splice connection is made at an intermediate length of a steel column. The column is subjected to an axial compressive load of 900 KN. The design compressive strength of the compression member is 1000 KN. The section of the compression member is not prepared for full contact. As per IS: 800-2007, the splice member shall be designed to carry an axial compressive load equal to _____.

- Ans**
- 1. 1000 KN
 - 2. 150 KN
 - 3. 900 KN
 - 4. 300 KN

Question ID : 630680335157
 Option 1 ID : 6306801303845
 Option 2 ID : 6306801303848
 Option 3 ID : 6306801303846
 Option 4 ID : 6306801303847

Q.13 Which of the following is a disadvantage of a flat roof compared to a pitched roof?

- Ans**
- 1. Wind resistance
 - 2. Initial cost
 - 3. Insulating properties
 - 4. Overall economy

Question ID : 630680876260
 Option 1 ID : 6306803431809
 Option 2 ID : 6306803431807
 Option 3 ID : 6306803431808
 Option 4 ID : 6306803431810

Q.14 Which of the following is NOT a valid data storage unit?

- Ans
- 1. Megabit (Mb)
 - 2. Kilobyte (KB)
 - 3. Terabyte (TB)
 - 4. Gigahertz (GHz)

Question ID : 630680876158
Option 1 ID : 6306803431400
Option 2 ID : 6306803431399
Option 3 ID : 6306803431402
Option 4 ID : 6306803431401

Q.15 A multiplier to convert the number of commercial vehicles of different axle load and axel configuration to a number of standard axles is called:

- Ans
- 1. vehicle damage factor
 - 2. vehicle control factor
 - 3. vehicle application factor
 - 4. vehicle advance factor

Question ID : 63068083054
Option 1 ID : 630680322079
Option 2 ID : 630680322078
Option 3 ID : 630680322076
Option 4 ID : 630680322077

Q.16 The lap length for direct tension should NOT be less than:

- Ans
- 1. $2 \times L_d$ or 30 mm Diameter of the bar, whichever is more
 - 2. $1 \times L_d$ or 24 mm Diameter of the bar, whichever is more
 - 3. $2 \times L_d$ or 30 mm Diameter of the bar, whichever is less
 - 4. $2 \times L_d$ or 24 mm Diameter of the bar, whichever is more

Question ID : 630680217753
Option 1 ID : 630680844925
Option 2 ID : 630680844924
Option 3 ID : 630680844926
Option 4 ID : 630680844923

Q.17 The constant quantity of water that can be pumped per unit time is known as _____ of the well.

- Ans
- 1. yield
 - 2. velocity
 - 3. pressure
 - 4. depression head

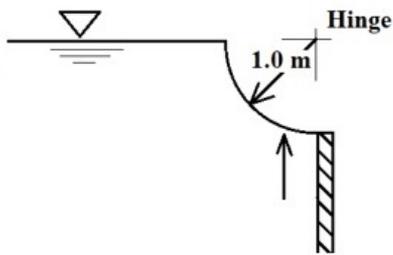
Question ID : 63068099870
Option 1 ID : 630680388176
Option 2 ID : 630680388178
Option 3 ID : 630680388177
Option 4 ID : 630680388179

Q.18 In right hand thumb rule, the outstretched thumb indicates the:

- Ans
- 1. direction of force
 - 2. direction of magnetic field
 - 3. direction of current
 - 4. direction of EMF

Question ID : 630680340680
 Option 1 ID : 6306801325164
 Option 2 ID : 6306801325162
 Option 3 ID : 6306801325161
 Option 4 ID : 6306801325163

Q.19 Determine the vertical component of hydrostatic force per unit width (in N/m) acting on the curved (quarter circle) gate as shown in the figure. The specific weight of water is given as 9810 N/m^3 .



- Ans
- 1. 5778.56
 - 2. 3852.37
 - 3. 9245.7
 - 4. 7704.75

Question ID : 630680120667
 Option 1 ID : 630680467643
 Option 2 ID : 630680467642
 Option 3 ID : 630680467645
 Option 4 ID : 630680467644

Q.20 A dry sand specimen has been tested in a direct shear test at a normal stress of 200 kN/m^2 . If the angle of shearing resistance of sand is 35° , calculate the shear stress at failure.

- Ans
- 1. 150 kN/m^2
 - 2. 140 kN/m^2
 - 3. 130 kN/m^2
 - 4. 120 kN/m^2

Question ID : 630680102130
 Option 1 ID : 630680396879
 Option 2 ID : 630680396878
 Option 3 ID : 630680396877
 Option 4 ID : 630680396876

Q.1 A steel column has unsupported length of 10 m. It is fixed at the bottom end, while the top end is hinged. The effective length of the column as per IS: 800-2007 will be_____.

- Ans
- 1. 10 m
 - 2. 8 m
 - 3. 12 m
 - 4. 6.5 m

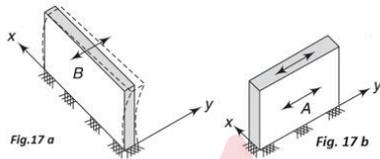
Question ID : 630680219842
 Option 1 ID : 630680853249
 Option 2 ID : 630680853248
 Option 3 ID : 630680853250
 Option 4 ID : 630680853247

Q.2 The total reaction time taken by the driver can be split into four parts. This theory is popularly known as:

- Ans
- 1. PIEV
 - 2. PIER
 - 3. PIKR
 - 4. PIKV

Question ID : 630680157905
 Option 1 ID : 630680611151
 Option 2 ID : 630680611149
 Option 3 ID : 630680611148
 Option 4 ID : 630680611150

Q.3 With reference to the behaviour of unreinforced masonry walls subjected to earthquakes as shown in the following figure, the inertia forces travel through roofs and walls to the foundation. These inertia forces are developed in both x and y directions. Based on this concept, the following statements are made. Select the correct option.



Statement A: A wall topples down easily if pushed horizontally at the top, in a direction perpendicular to its plane (weak direction). This is called out-of-plane failure [Wall B shown in Fig. 17(a)].

Statement B: A wall [Wall A shown in Fig. 17(b)] offers much greater resistance if pushed along its length (strong direction). This is called in-plane resistance.

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

Question ID : 630680876128
 Option 1 ID : 6306803431281
 Option 2 ID : 6306803431282
 Option 3 ID : 6306803431279
 Option 4 ID : 6306803431280

Q.4 A column has effective length of 4000 mm. Its size is 300 mm × 400 mm. Identify the column type.

- Ans
- 1. Long column
 - 2. Pedestal
 - 3. Strut
 - 4. Short column

Question ID : 630680206796
Option 1 ID : 630680801783
Option 2 ID : 630680801785
Option 3 ID : 630680801786
Option 4 ID : 630680801784

Q.5 Calculate the expenses incurred for demolishing an RCC work, covering a volume of 10 m^3 , with a requirement for 2.4 mazdoors per m^3 . Each mazdoor costs ₹850.

- Ans
- 1. ₹1,190.00
 - 2. ₹11,900.00
 - 3. ₹8,500.00
 - 4. ₹20,400.00

Question ID : 630680876229
Option 1 ID : 6306803431685
Option 2 ID : 6306803431684
Option 3 ID : 6306803431686
Option 4 ID : 6306803431683

Q.6 Consider the following statements.

- a. A gas with a compressibility factor more than 1 is less compressible than a perfect gas.
- b. The x and y axis of the compressibility chart are compressibility factor on the x-axis and reduced pressure on the y-axis.
- c. The first and second derivatives of the pressure with respect to volume at critical points are zero.

Which of the given statements is/are correct?

- Ans
- 1. Only a and b
 - 2. Only b
 - 3. Only a and c
 - 4. Only b and c

Question ID : 630680144881
Option 1 ID : 630680560562
Option 2 ID : 630680560564
Option 3 ID : 630680560565
Option 4 ID : 630680560563

Q.7 The coefficient of passive earth pressure is _____.

- Ans
- 1. less than the coefficient of active earth pressure
 - 2. greater than the coefficient of active earth pressure
 - 3. equal to the coefficient of active earth pressure
 - 4. 1

Question ID : 630680201877
Option 1 ID : 630680782855
Option 2 ID : 630680782856
Option 3 ID : 630680782857
Option 4 ID : 630680782858

Q.8 Two lines PQ and QR are part of a closed traverse. The fore bearing of QR is $163^{\circ} 15' 00''$ and the included angle between the mentioned lines PQ and QR is $133^{\circ} 15' 00''$. The fore bearing of the line PQ is:

- Ans
- 1. $176^{\circ} 30'$
 - 2. $124^{\circ} 30'$
 - 3. $243^{\circ} 30'$
 - 4. $116^{\circ} 30'$

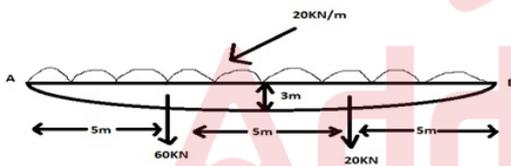
Question ID : 630680121648
 Option 1 ID : 630680471543
 Option 2 ID : 630680471542
 Option 3 ID : 630680471544
 Option 4 ID : 630680471545

Q.9 As per IRC : 37, pavements for national highways and state highways shall be designed for a life of:

- Ans
- 1. 20 years
 - 2. 10 years
 - 3. 15 years
 - 4. 25 years

Question ID : 630680157927
 Option 1 ID : 630680611237
 Option 2 ID : 630680611236
 Option 3 ID : 630680611238
 Option 4 ID : 630680611239

Q.10 Calculate the maximum tension in the cable having supports at the same level with a span of 15m and a maximum dip of 3m. The cable is subjected to a uniformly distributed load of 20 kN/m throughout its span and the point loads of 60 kN and 20 kN at middle third points, as shown in the figure



- Ans
- 1. 313.72 N
 - 2. 321.69 N
 - 3. 321.69 KN
 - 4. 313.72 KN

Question ID : 63068082451
 Option 1 ID : 630680319845
 Option 2 ID : 630680319847
 Option 3 ID : 630680319846
 Option 4 ID : 630680319844

Q.11 A non-load bearing thin internal wall used to divide the space inside a building is called a/an _____.

- Ans
- 1. internal wall
 - 2. partition wall
 - 3. curtain wall
 - 4. cavity wall

Question ID : 630680876253
Option 1 ID : 6306803431779
Option 2 ID : 6306803431780
Option 3 ID : 6306803431781
Option 4 ID : 6306803431782

Q.12 Folds and faults are formed by which of the below processes?

- Ans
- 1. Plate tectonism
 - 2. Deformation of rocks
 - 3. Underloading
 - 4. Overloading

Question ID : 630680876199
Option 1 ID : 6306803431564
Option 2 ID : 6306803431563
Option 3 ID : 6306803431566
Option 4 ID : 6306803431565

Q.13 Sub-surface drains or underground tile drains are required for soils with _____.

- Ans
- 1. poor internal drainage capacity and high water table
 - 2. high internal drainage capacity and high water table
 - 3. high internal drainage capacity and low water table
 - 4. poor internal drainage capacity and low water table

Question ID : 630680144455
Option 1 ID : 630680558887
Option 2 ID : 630680558889
Option 3 ID : 630680558886
Option 4 ID : 630680558888

Q.14 A variable-mass body with an initial mass of 15 kg is moving with a velocity of 15 m/s initially. After some time, the velocity increases to 20 m/s. What will be the new mass if the body is moving in the absence of any external force?

- Ans
- 1. 11.2 kg
 - 2. 12.5 kg
 - 3. 10 kg
 - 4. 7.5 kg

Question ID : 630680876296
Option 1 ID : 6306803431951
Option 2 ID : 6306803431954
Option 3 ID : 6306803431952
Option 4 ID : 6306803431953

Q.15 A beam of length 5 m has the shear force variation at distance x from one of the end $10x^0 - 2x^1$ kN it is observed that Bending moment at the same location is found to be 6 KN-m. The point of contraflexure in the beam is _____.
(The direction of Bending Moment can be neglected.)

- Ans
- 1. 0.65
 - 2. 1.5
 - 3. 0.325
 - 4. 9.35

Question ID : 630680205670
Option 1 ID : 630680797493
Option 2 ID : 630680797494
Option 3 ID : 630680797492
Option 4 ID : 630680797491

Q.16 Which of the following is a partial differential equation for the equation $z = ax + by + ct$?

- Ans
- 1. $z = px + qy + t \frac{\partial z}{\partial t}$
 - 2. $z = px + qy - t \frac{\partial z}{\partial t}$
 - 3. $z = px - qy + t \frac{\partial z}{\partial t}$
 - 4. $z = px - qy - t \frac{\partial z}{\partial t}$

Question ID : 630680208741
Option 1 ID : 630680809196
Option 2 ID : 630680809195
Option 3 ID : 630680809197
Option 4 ID : 630680809198

Q.17 The equation for the specific energy curve is given by ____ where 'E' = Specific energy, 'h' = depth of flow, 'g' = Acceleration due to gravity and 'q' = discharge per unit width.

- Ans
- 1. $E = h + (q^3/2gh^2)$
 - 2. $E = h + (q^2/2gh)$
 - 3. $E = h^2 + (q^2/2gh^2)$
 - 4. $E = h + (q^2/2gh^2)$

Question ID : 630680108853
Option 1 ID : 630680422305
Option 2 ID : 630680422307
Option 3 ID : 630680422306
Option 4 ID : 630680422304

Q.18 Which of the following statements is correct??

- Ans
- 1. In PERT, time is deterministic.
 - 2. In CPM, both time and cost are probabilistic.
 - 3. In PERT, time is probabilistic.
 - 4. In CPM, time is probabilistic.

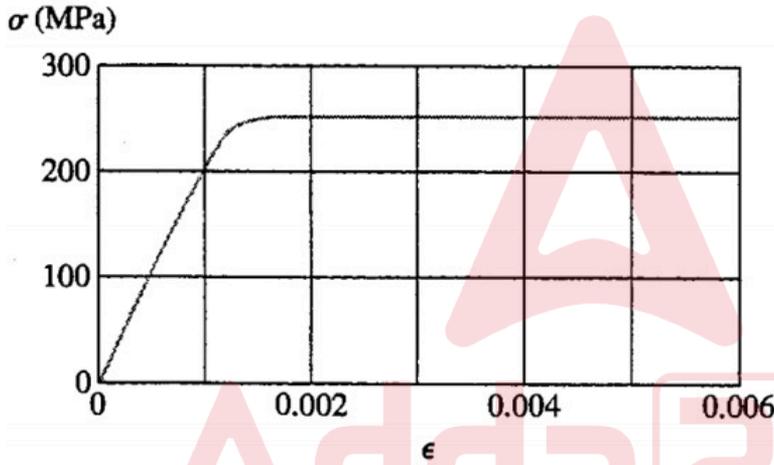
Question ID : 630680121398
Option 1 ID : 630680470551
Option 2 ID : 630680470553
Option 3 ID : 630680470552
Option 4 ID : 630680470550

Q.19 Which of the following soils is impervious (when compacted), has poor shearing strength (when compacted and saturated), high compressibility (when compacted and saturated) and poor workability as construction material? (Classify as per Indian Standard Classification System)

- Ans
- 1. GW
 - 2. CL
 - 3. SC
 - 4. CH

Question ID : 630680145685
 Option 1 ID : 630680563666
 Option 2 ID : 630680563669
 Option 3 ID : 630680563667
 Option 4 ID : 630680563668

Q.20 A bar of length 2.0 m is made of a structural steel having the stress-strain diagram shown in the figure. The yield stress of the steel is 200 MPa and the slope of the initial linear part of the stress-strain curve (modulus of elasticity) is 200 GPa. The bar is loaded axially until it elongates 6.5 mm, and then the load is removed. The elastic recovery is:



- Ans
- 1. $10^{-0.3}$
 - 2. 10^{-3}
 - 3. 10^{-2}
 - 4. 10^{-2}

Question ID : 630680199030
 Option 1 ID : 630680771834
 Option 2 ID : 630680771833
 Option 3 ID : 630680771831
 Option 4 ID : 630680771832