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Previous Year Paper
Jr Lab Assistant
27 Jul, 2024 Shift 3





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Participant ID	
Participant Name	
Test Center Name	
Test Date	27/07/2024
Test Time	4:30 PM - 6:30 PM
Subject	Junior Laboratory Assistant

Section : General Intelligence and Reasoning Ability

Q.1 In a certain code language, 'RING' is coded as '7129' and 'GAIN' is coded as '4971'.
What is the code for 'A' in the given code language?

- Ans ☒ 1. 1
☒ 2. 4
☒ 3. 9
☒ 4. 7

Question ID : 630680523446
Option 1 ID : 6306802045965
Option 2 ID : 6306802045962
Option 3 ID : 6306802045963
Option 4 ID : 6306802045964

Q.2 Three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the letter-cluster pair that does NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their positions in the letter-cluster.)

- Ans ☒ 1. WK - SG
☒ 2. DR - YM
☒ 3. OC - KY
☒ 4. ES - AO

Question ID : 630680774439
Option 1 ID : 6306803035658
Option 2 ID : 6306803035659
Option 3 ID : 6306803035660
Option 4 ID : 6306803035657

Q.3 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Which numbers should replace X and Y so that the pattern followed by the two numbers on the left side of :: is the same as that on the right side of ::?

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

X : 165 :: 19 : Y

- Ans** ☒ 1. X = 13, Y = 357
☐ 2. X = 13, Y = 255
☐ 3. X = 12, Y = 357
☐ 4. X = 11, Y = 255

Question ID : 630680746279
Option 1 ID : 6306802925257
Option 2 ID : 6306802925259
Option 3 ID : 6306802925258
Option 4 ID : 6306802925256

Q.4 What should come in place of the question mark (?) in the given series?
18 22 14 18 10 14 ?

- Ans** ☐ 1. 8
☐ 2. 10
☒ 3. 6
☐ 4. 16

Question ID : 630680694760
Option 1 ID : 6306802721295
Option 2 ID : 6306802721297
Option 3 ID : 6306802721296
Option 4 ID : 6306802721298



Q.5 Which figure should replace the question mark (?) if the following series were to be continued?

4	B	B	M	S	G	G	O	
G	M	A	☆	4	G	B	O	A
☆	S	S	A	☆	4	4	A	?

Ans

✗ 1.

4	A
G	9
☆	B

✗ 2.

☆	A
4	9
G	S

✓ 3.

4	B
G	9
☆	S

✗ 4.

☆	G
B	4
A	S

Question ID : 630680525761
Option 1 ID : 6306802055130
Option 2 ID : 6306802055131
Option 3 ID : 6306802055129
Option 4 ID : 6306802055128

Q.6 In a certain code language, 'come and play' is written as 'mp hk bo' and 'play and win' is written as 'hk ke bo'. How is 'win' written in the given language?

- Ans
- ✗ 1. hk
 - ✓ 2. ke
 - ✗ 3. bo
 - ✗ 4. mp

Question ID : 630680523449
Option 1 ID : 6306802045974
Option 2 ID : 6306802045977
Option 3 ID : 6306802045975
Option 4 ID : 6306802045976

Q.7 A is the wife of B. B is the father of D, E and F. D is the wife of L. E is the husband of Q. Q is the mother of G. How is D related to G?

- Ans**
- ☒ 1. Sister
 - ☒ 2. Mother's mother
 - ☒ 3. Father's sister
 - ☒ 4. Mother

Question ID : 630680439250
Option 1 ID : 6306801714813
Option 2 ID : 6306801714814
Option 3 ID : 6306801714815
Option 4 ID : 6306801714812

Q.8 Select the pair which follows the same pattern as that followed by the two set of pairs given below. Both pairs follow the same pattern.
MTL : JPI
EXR : BTO

- Ans**
- ☒ 1. VUT : SRQ
 - ☒ 2. OQW : LMU
 - ☒ 3. PYO : MUL
 - ☒ 4. LFH : JDE

Question ID : 630680386909
Option 1 ID : 6306801508348
Option 2 ID : 6306801508347
Option 3 ID : 6306801508349
Option 4 ID : 6306801508346

Q.9 Seven boxes, L, M, N, O, P, Q and R, are kept one over the other but not necessarily in the same order. P is placed at the bottom of the pile. R is placed immediately above P. Only one box is placed between N and R. M is placed immediately below O and immediately above L. L is placed immediately above N. Which box is placed between N and R?

- Ans**
- ☒ 1. M
 - ☒ 2. Q
 - ☒ 3. L
 - ☒ 4. P

Question ID : 630680387933
Option 1 ID : 6306801512354
Option 2 ID : 6306801512356
Option 3 ID : 6306801512355
Option 4 ID : 6306801512357

Q.10 What should come in place of the question mark (?) in the given series?
9, 18, 20, 40, 42, ?

- Ans**
- ☒ 1. 84
 - ☒ 2. 82
 - ☒ 3. 80
 - ☒ 4. 86

Question ID : 630680388192
Option 1 ID : 6306801513332
Option 2 ID : 6306801513331
Option 3 ID : 6306801513330
Option 4 ID : 6306801513333

Q.11 ADGJ is related to EHKJ in a certain way, based on the English alphabetical order. In the same way, CFIL is related to GJMP. To which of the following is FILO related, following the same logic?

- Ans** ☒ 1. JMPS
☐ 2. KMQR
☐ 3. JMQS
☐ 4. KMPS

Question ID : 630680388178
Option 1 ID : 6306801513274
Option 2 ID : 6306801513275
Option 3 ID : 6306801513276
Option 4 ID : 6306801513277

Q.12 In this question, two statements are given, followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follows/follow from the statements.

Statements:

- I. All gels are pens.
II. No slime is a gel.

Conclusions:

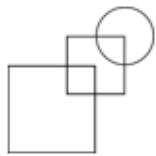
- I. Some pens are slimes.
II. All slimes are pens.

- Ans** ☐ 1. Only conclusion II follows
☐ 2. Both conclusions I and II follow
☒ 3. Neither conclusion I nor II follows
☐ 4. Only conclusion I follows

Question ID : 630680520962
Option 1 ID : 6306802036274
Option 2 ID : 6306802036275
Option 3 ID : 6306802036276
Option 4 ID : 6306802036273

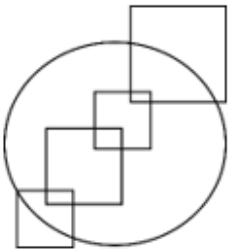


Q.13 Select the option in which the given figure is embedded (rotation is NOT allowed).

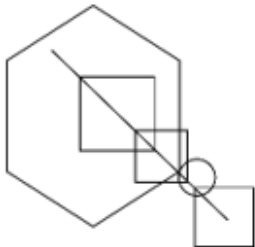


Ans

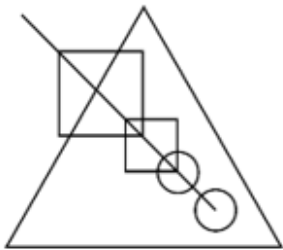
✗ 1.



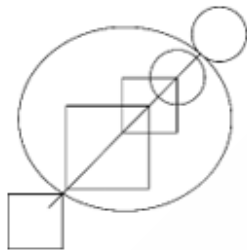
✗ 2.



✗ 3.



✓ 4.



Question ID : 630680524591
Option 1 ID : 6306802050465
Option 2 ID : 6306802050464
Option 3 ID : 6306802050463
Option 4 ID : 6306802050466

Q.14 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. FHJ
 - ✗ 2. ACE
 - ✓ 3. DGJ
 - ✗ 4. LNP

Question ID : 630680467072
Option 1 ID : 6306801824241
Option 2 ID : 6306801824244
Option 3 ID : 6306801824243
Option 4 ID : 6306801824242

Q.15 Refer to the following series and answer the question that follows.
(All numbers are single digit numbers only. Counting to be done from left to right only)

(Left) 8 4 6 9 7 3 5 1 2 2 9 3 1 6 8 7 5 4 7 3 6 9 2 4 8 1 5 (Right)
How many such even digits are there each of the which is immediately preceded by a perfect square and immediately followed by an odd digit?
(NOTE: 1 is also a perfect square.)

- Ans ☒ 1. More than three
☒ 2. Two
☒ 3. Three
☒ 4. One

Question ID : 630680387599
Option 1 ID : 6306801511065
Option 2 ID : 6306801511063
Option 3 ID : 6306801511064
Option 4 ID : 6306801511062

Q.16 Refer to the following series and answer the question that follows.
(All numbers are single digit numbers only.)
(Left) 4 2 1 5 7 9 8 5 2 6 2 1 5 7 3 7 8 4 3 6 9 7 4 5 2 4 1 (Right)
How many such odd digits are there, each of which is immediately preceded by an even digit and also immediately followed by an odd digit?

- Ans ☒ 1. Three
☒ 2. Two
☒ 3. Five
☒ 4. Four

Question ID : 630680395187
Option 1 ID : 6306801540981
Option 2 ID : 6306801540980
Option 3 ID : 6306801540982
Option 4 ID : 6306801540983

Q.17 A, B, C, D, E, F, and G are sitting around a circular table, facing the centre. G sits 2nd to the right of B. Only 2 people sit between A and B, when counted from the left of B. E is an immediate neighbour of B and C. D is not an immediate neighbour of B.

How many people are sitting between F and C, when counted from the right of F?

- Ans ☒ 1. 4
☒ 2. 2
☒ 3. 3
☒ 4. 1

Question ID : 630680388894
Option 1 ID : 6306801516041
Option 2 ID : 6306801516039
Option 3 ID : 6306801516040
Option 4 ID : 6306801516038

Q.18

L, M, N, O, P and Q are sitting in a straight line, facing the north. Only two people are sitting to the right of P. L is sitting to the immediate left of P. O is sitting to the immediate left of L. N is sitting to the immediate right of P. Q is sitting to the immediate right of N. Who is sitting to the immediate right of M?

- Ans
- ☒ 1. N
 - ☒ 2. P
 - ☒ 3. O
 - ☒ 4. Q

Question ID : 630680387930
Option 1 ID : 6306801512344
Option 2 ID : 6306801512343
Option 3 ID : 6306801512342
Option 4 ID : 6306801512345

Q.19 Six friends, Diwakar, Arihant, Umesh, Avinash, Amit and Vikram, are living on different floors in the same building having six floors numbered one to six (the ground floor is numbered one, the floor above it is numbered two, and so on, and the topmost floor is numbered six). Amit is living on floor number 2. Only two persons are living between Amit and Arihant. Only Diwakar is living above Arihant. Umesh is living on an even numbered floor. Vikram is living immediately below Amit. On which floor is Avinash living?

- Ans
- ☒ 1. Floor number 5
 - ☒ 2. Floor number 1
 - ☒ 3. Floor number 4
 - ☒ 4. Floor number 3

Question ID : 630680401304
Option 1 ID : 6306801565017
Option 2 ID : 6306801565019
Option 3 ID : 6306801565020
Option 4 ID : 6306801565018

Q.20 What will come in the place of the question mark (?) in the following equation if '+' and '-' are interchanged and 'x' and '÷' are interchanged?
 $49 \times 7 - 33 \div 3 + 69 = ?$

- Ans
- ☒ 1. 67
 - ☒ 2. 37
 - ☒ 3. 57
 - ☒ 4. 47

Question ID : 630680389625
Option 1 ID : 6306801518959
Option 2 ID : 6306801518961
Option 3 ID : 6306801518958
Option 4 ID : 6306801518960

Section : General Awareness

Q.1 Lovely Choubey, Pinki Singh, Nayanmoni Saika and Rupa Rani Tirkey defeated South Africa in the gold medal match to create history at the Commonwealth Games 2022 in Birmingham in which of the following games?

- Ans** ☒ 1. Rowing
☒ 2. Rugby Sevens
☒ 3. Netball
☒ 4. Lawn Bowls

Question ID : 630680514229
Option 1 ID : 6306802009544
Option 2 ID : 6306802009542
Option 3 ID : 6306802009543
Option 4 ID : 6306802009541

Q.2 बुनियादी साक्षरता और संख्यात्मक कौशल से परे शिक्षा ग्रामीण विकास में क्या भूमिका निभाती है?

- Ans** ☒ 1. यह कृषि आधुनिकीकरण को बढ़ावा देता है।
☒ 2. यह शहरी क्षेत्रों में प्रवास को प्रोत्साहित करता है।
☒ 3. इससे सरकारी सहायता पर निर्भरता बढ़ती है।
☒ 4. यह सामाजिक एकता और सशक्तिकरण को बढ़ाता है।

Question ID : 630680774267
Option 1 ID : 6306803034973
Option 2 ID : 6306803034974
Option 3 ID : 6306803034975
Option 4 ID : 6306803034976

Q.3 Which of the following is NOT a component of the Niti Aayog's composition?

- Ans** ☒ 1. Governing Council
☒ 2. International Wing
☒ 3. Special Invitees
☒ 4. Regional Councils

Question ID : 630680593943
Option 1 ID : 6306802324025
Option 2 ID : 6306802324028
Option 3 ID : 6306802324027
Option 4 ID : 6306802324026

Q.4 In March 2024, which state started the Travel Safe (T-Safe) service and dedicated it to the citizens of the state, with a special emphasis on women travelling alone?

- Ans** ☒ 1. Assam
☒ 2. Goa
☒ 3. Tamil Nadu
☒ 4. Telangana

Question ID : 630680749034
Option 1 ID : 6306802935668
Option 2 ID : 6306802935671
Option 3 ID : 6306802935669
Option 4 ID : 6306802935670

Q.5 What does the Gross Domestic Product (GDP) measure?

- Ans
- ☐ 1. Total income of the government
 - ☐ 2. Total export value of a country
 - ☐ 3. Total savings within the banking system
 - ☒ 4. Total value of goods and services produced within a country's borders in a specific time period

Question ID : 630680410841
Option 1 ID : 6306801602119
Option 2 ID : 6306801602121
Option 3 ID : 6306801602122
Option 4 ID : 6306801602120

Q.6 Which financial institution in India is responsible for regulating and supervising the securities market, including stock exchanges and intermediaries?

- Ans
- ☐ 1. Bombay Stock Exchange (BSE)
 - ☐ 2. Reserve Bank of India (RBI)
 - ☒ 3. Securities and Exchange Board of India (SEBI)
 - ☐ 4. National Stock Exchange (NSE)

Question ID : 630680774295
Option 1 ID : 6306803035084
Option 2 ID : 6306803035081
Option 3 ID : 6306803035082
Option 4 ID : 6306803035083

Q.7 In which state, the Union Ministry of Women and Child Development launched the 'Nari Adalat' and 'Palana' scheme on pilot basis in January 2024?

- Ans
- ☐ 1. Goa
 - ☐ 2. Haryana
 - ☒ 3. Assam
 - ☐ 4. Odisha

Question ID : 630680749040
Option 1 ID : 6306802935694
Option 2 ID : 6306802935695
Option 3 ID : 6306802935692
Option 4 ID : 6306802935693

Q.8 Jaisalmer in Rajasthan is a region of:

- Ans
- ☒ 1. low rainfall
 - ☐ 2. heavy rainfall
 - ☐ 3. moderate rainfall
 - ☐ 4. very heavy rainfall

Question ID : 630680511354
Option 1 ID : 6306801998548
Option 2 ID : 6306801998546
Option 3 ID : 6306801998547
Option 4 ID : 6306801998549

Q.9 Sundari trees are found in which region of India from the following?

- Ans ☒ 1. Ganga-Brahmaputra delta
- ☐ 2. Semi-arid areas of Gujarat
- ☐ 3. The southern slopes of the Himalayas
- ☐ 4. The foothills of the Himalayas

Question ID : 630680837879
Option 1 ID : 6306803282225
Option 2 ID : 6306803282226
Option 3 ID : 6306803282224
Option 4 ID : 6306803282223

Q.10 _____ is a mirror of the folk art and culture of rural Bengal. It was founded by Debendranath Tagore at Shantiniketan in 1894.

- Ans ☐ 1. Jamai Shoshti
- ☐ 2. Raja Parba
- ☒ 3. Poush Mela
- ☐ 4. Chhau

Question ID : 630680511942
Option 1 ID : 6306802000739
Option 2 ID : 6306802000740
Option 3 ID : 6306802000738
Option 4 ID : 6306802000741

Q.11 The full form of FSSAI is _____.

- Ans ☐ 1. Food Standards Safety Authority of India
- ☒ 2. Food Safety and Standards Authority of India
- ☐ 3. Food and Safety Standards Authority of India
- ☐ 4. Food Safety Standards Authority of India

Question ID : 630680768167
Option 1 ID : 6306803010750
Option 2 ID : 6306803010751
Option 3 ID : 6306803010752
Option 4 ID : 6306803010749

Q.12 What was the decadal growth rate of Christian population in India as per Census 2011?

- Ans ☐ 1. 22.52%
- ☒ 2. 15.5%
- ☐ 3. 16.98%
- ☐ 4. 14.2%

Question ID : 630680721124
Option 1 ID : 6306802825858
Option 2 ID : 6306802825856
Option 3 ID : 6306802825857
Option 4 ID : 6306802825855

Q.13 How many layers are there in the transverse section of microsporangia?

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

Question ID : 630680767369
Option 1 ID : 6306803007783
Option 2 ID : 6306803007784
Option 3 ID : 6306803007781
Option 4 ID : 6306803007782

Q.14 Rudradaman-I was a king of which of the following dynasties?

- Ans ☒ 1. Kanva
- ☒ 2. Shaka
- ☒ 3. Shunga
- ☒ 4. Kushana

Question ID : 630680433773
Option 1 ID : 6306801693057
Option 2 ID : 6306801693055
Option 3 ID : 6306801693056
Option 4 ID : 6306801693058

Q.15 Select the correct statement based on languages used in the texts by the given authors.

- Ans ☒ 1. Narasi Mehta used Marathi primarily for his literary compositions.
- ☒ 2. Malik Muhammad Jayasi wrote Padmavat in Awadhi.
- ☒ 3. Tulsidas's Ramcharitmanas is originally written in Maithili.
- ☒ 4. Eknath and Namdev primarily used Gujarati in their literary texts.

Question ID : 630680512132
Option 1 ID : 6306802001499
Option 2 ID : 6306802001498
Option 3 ID : 6306802001501
Option 4 ID : 6306802001500

Q.16 In September 2023, Odia scientist Swati Nayak won Norman Borlaug Award for Field Research and Application. She is associated with developing climate-resilient and nutritious variety of which crop?

- Ans ☒ 1. Millets
- ☒ 2. Rice
- ☒ 3. Maize
- ☒ 4. Wheat

Question ID : 630680750927
Option 1 ID : 6306802943136
Option 2 ID : 6306802943134
Option 3 ID : 6306802943137
Option 4 ID : 6306802943135

Q.17 What is a likely consequence of increased automation in industries for the Indian workforce?

- Ans
- ☐ 1. Unconditional increase in employment across all sectors.
 - ☐ 2. Automation will only affect IT and technology sectors.
 - ☒ 3. Creation of new high-skilled jobs and the redundancy of certain low-skilled jobs.
 - ☐ 4. No change in the employment structure or job types.

Question ID : 630680580582
Option 1 ID : 6306802271227
Option 2 ID : 6306802271230
Option 3 ID : 6306802271228
Option 4 ID : 6306802271229

Q.18 In December 2022, Indian women's hockey team beat which country's team to win the inaugural FIH Nations Cup in Valencia ?

- Ans
- ☒ 1. Spain
 - ☐ 2. Russia
 - ☐ 3. China
 - ☐ 4. France

Question ID : 630680514228
Option 1 ID : 6306802009538
Option 2 ID : 6306802009539
Option 3 ID : 6306802009537
Option 4 ID : 6306802009540

Q.19 Which of the following is the term used for an individual's complete set of chromosomes?

- Ans
- ☒ 1. Karyotype
 - ☐ 2. Cyanotype
 - ☐ 3. Prototype
 - ☐ 4. Halotype

Question ID : 630680772461
Option 1 ID : 6306803027851
Option 2 ID : 6306803027849
Option 3 ID : 6306803027848
Option 4 ID : 6306803027850

Q.20 Which of the following Acts was replaced by the Constitution of India on 26th January 1950, and is now celebrated as Republic Day?

- Ans
- ☐ 1. Government of India Act, 1912
 - ☐ 2. Government of India Act, 1919
 - ☒ 3. Government of India Act, 1935
 - ☐ 4. Indian Independence Act, 1947

Question ID : 630680512111
Option 1 ID : 6306802001414
Option 2 ID : 6306802001415
Option 3 ID : 6306802001416
Option 4 ID : 6306802001417

Q.1 A person saves 80% of his income. If his expenditure is ₹320, then his income(in ₹) is:

- Ans** ☒ 1. 1640
☒ 2. 1600
☒ 3. 64
☒ 4. 256

Question ID : 630680667390
Option 1 ID : 6306802613123
Option 2 ID : 6306802613120
Option 3 ID : 6306802613122
Option 4 ID : 6306802613121

Q.2 A 250-metre long train running at a speed of 100 km/h crosses another train coming from the opposite direction at a speed of 62 km/h in 10 seconds. What is the length of the second train?

- Ans** ☒ 1. 240 metres
☒ 2. 270 metres
☒ 3. 230 metres
☒ 4. 200 metres

Question ID : 630680206524
Option 1 ID : 630680800706
Option 2 ID : 630680800705
Option 3 ID : 630680800703
Option 4 ID : 630680800704

Q.3 Robin has a few coins of 1 rupee, 50 paise and 25 paise in the ratio $\frac{1}{4} : \frac{1}{2} : \frac{1}{2}$. If the number of 50 paise coins is 200, then the total amount with Robin is:

- Ans** ☒ 1. ₹200
☒ 2. ₹125
☒ 3. ₹250
☒ 4. ₹100

Question ID : 630680233039
Option 1 ID : 630680904280
Option 2 ID : 630680904277
Option 3 ID : 630680904278
Option 4 ID : 630680904279

Q.4 If the area of the equilateral triangle is $4\sqrt{3}$ m², then its perimeter will be:

- Ans** ☒ 1. 16 m
☒ 2. 20 m
☒ 3. 12 m
☒ 4. 18 m

Question ID : 630680135919
Option 1 ID : 630680526383
Option 2 ID : 630680526384
Option 3 ID : 630680526382
Option 4 ID : 630680526385

Q.5 The radius of a sphere is 4 cm. What is its surface area (in cm^2 , to the nearest hundreds)? (Use $\pi = 22/7$)

- Ans** ☒ 1. 200
☐ 2. 300
☐ 3. 800
☐ 4. 600

Question ID : 63068097306
Option 1 ID : 630680377917
Option 2 ID : 630680377919
Option 3 ID : 630680377918
Option 4 ID : 630680377916

Q.6 A man buys a second-hand car for ₹885000 and spends ₹22000 on its repairs. What should be its selling price (in ₹) if he wants to earn a 7% profit?

- Ans** ☐ 1. ₹979100
☒ 2. ₹970490
☐ 3. ₹977700
☐ 4. ₹978400

Question ID : 630680789962
Option 1 ID : 6306803095630
Option 2 ID : 6306803095628
Option 3 ID : 6306803095629
Option 4 ID : 6306803095631

Q.7 The population of a village was 240000. It increased by 5% in the first year and increased by 30% in the second year. Its population after two years is _____.

- Ans** ☐ 1. 312000
☒ 2. 327600
☐ 3. 252000
☐ 4. 324000

Question ID : 630680667308
Option 1 ID : 6306802612794
Option 2 ID : 6306802612792
Option 3 ID : 6306802612793
Option 4 ID : 6306802612795

Q.8 The average of the squares of the first 44 natural numbers is

- Ans** ☒ 1. 667.5
☐ 2. 669.5
☐ 3. 666.5
☐ 4. 668.5

Question ID : 630680568971
Option 1 ID : 6306802224693
Option 2 ID : 6306802224696
Option 3 ID : 6306802224695
Option 4 ID : 6306802224694

Q.9 A sum of money doubles itself at a certain rate of compound interest in 6 years when the interest is compounded half yearly. In how many years will it become eight times of itself at the same rate compounded half-yearly?

- Ans ☒ 1. 24
- ☒ 2. 18
- ☒ 3. 36
- ☒ 4. 12

Question ID : 630680315039
Option 1 ID : 6306801225955
Option 2 ID : 6306801225954
Option 3 ID : 6306801225956
Option 4 ID : 6306801225953

Q.10 P and Q can complete a work in 8 days, Q and R can complete the same work in 12 days. P, Q and R together can finish it in 6 days. P and R together will complete it in _____.

- Ans ☒ 1. 12 days
- ☒ 2. $11\frac{3}{4}$ days
- ☒ 3. 8 days
- ☒ 4. $10\frac{3}{4}$ days

Question ID : 63068068076
Option 1 ID : 630680263038
Option 2 ID : 630680263039
Option 3 ID : 630680263041
Option 4 ID : 630680263040

Q.11 A bus is moving at a speed of 38 km/h. If its speed is reduced by 41%, the new speed of the bus (in km/h) will be:

- Ans ☒ 1. 22.42
- ☒ 2. 20.76
- ☒ 3. 28.85
- ☒ 4. 24.21

Question ID : 630680788954
Option 1 ID : 6306803091596
Option 2 ID : 6306803091598
Option 3 ID : 6306803091599
Option 4 ID : 6306803091597

Q.12 The average of first 53 even numbers is

- Ans ☒ 1. 55
- ☒ 2. 53
- ☒ 3. 54
- ☒ 4. 56

Question ID : 630680555594
Option 1 ID : 6306802171814
Option 2 ID : 6306802171813
Option 3 ID : 6306802171812
Option 4 ID : 6306802171815

Q.13 Study the given table and answer the question that follows.

The given table shows the expenditure of a company per annum (in ₹ lakhs) over five years.

Year	Salaries	Fuel and transport	Bonus	Interests	Tax
2017	6.8	3.2	1.8	7.8	3.4
2018	7.5	4.4	0.0	6.7	2.8
2019	8.2	3.2	3.1	9.0	3.4
2020	10.16	6.8	2.9	2.1	4.12
2021	14.2	7.0	3.21	4.4	5.19

By how much is the expenditure of the company in 2021 more/less than that in 2017?

- Ans ☒ 1. ₹14 lakhs less
- ☒ 2. ₹11 lakhs more
- ☒ 3. ₹14 lakhs more
- ☒ 4. ₹11 lakhs less

Question ID : 630680837897

Option 1 ID : 6306803282290

Option 2 ID : 6306803282287

Option 3 ID : 6306803282289

Option 4 ID : 6306803282288

Q.14 The distance between two points on a map is 7 cm. The scale of the map is 1 : 845494. The actual distance (rounded off to two decimal place) between the two points (in km) is:

- Ans ☒ 1. 62.78
- ☒ 2. 56.76
- ☒ 3. 63.08
- ☒ 4. 59.18

Question ID : 630680789681

Option 1 ID : 6306803094505

Option 2 ID : 6306803094507

Option 3 ID : 6306803094506

Option 4 ID : 6306803094504

Q.15 Mr. Sharma, Mr. Gupta and Ms Sinha together invested ₹4,000, ₹8,000 and ₹6,000, respectively, in a business. Mr. Sharma left after 6 months. If after 8 months, there was a gain of ₹34,000, then what will be the share of Mr. Gupta?

- Ans ☒ 1. ₹12,000
- ☒ 2. ₹20,000
- ☒ 3. ₹16,000
- ☒ 4. ₹14,000

Question ID : 630680239497

Option 1 ID : 630680928939

Option 2 ID : 630680928942

Option 3 ID : 630680928941

Option 4 ID : 630680928940

Q.16 Find the simple interest (in ₹) if a sum of ₹400 is borrowed for 3.5 years at 20% per annum rate of interest.

- Ans
- ☐ 1. 330
 - ☐ 2. 260
 - ☐ 3. 380
 - ☒ 4. 280

Question ID : 630680665725
Option 1 ID : 6306802606461
Option 2 ID : 6306802606462
Option 3 ID : 6306802606463
Option 4 ID : 6306802606460

Q.17 A man sold a trouser for ₹960, at a loss of 4%. He also sold a jacket for ₹750 at a profit of 20%. Find his net profit (in ₹).

- Ans
- ☒ 1. 85
 - ☐ 2. 100
 - ☐ 3. 90
 - ☐ 4. 80

Question ID : 630680633456
Option 1 ID : 6306802479720
Option 2 ID : 6306802479723
Option 3 ID : 6306802479722
Option 4 ID : 6306802479721

Q.18 Which of the following numbers is a perfect cube?

- Ans
- ☐ 1. 126
 - ☒ 2. 216
 - ☐ 3. 26
 - ☐ 4. 346

Question ID : 630680121146
Option 1 ID : 630680469546
Option 2 ID : 630680469547
Option 3 ID : 630680469548
Option 4 ID : 630680469549

Q.19 A shot put is a metallic sphere of radius 3.5 cm. If the density of the metal is 13.2 gm/cm³, find the mass of the shot put. (Use $\pi = 22/7$)

- Ans
- ☐ 1. 3.894 kg
 - ☒ 2. 2.3716 kg
 - ☐ 3. 1.7326 kg
 - ☐ 4. 3.5763 kg

Question ID : 630680131154
Option 1 ID : 630680507885
Option 2 ID : 630680507882
Option 3 ID : 630680507884
Option 4 ID : 630680507883

Q.20 The value of x in the proportion 5 : 35 :: 38 : x is:

- Ans ☒ 1. 277
☒ 2. 263
☒ 3. 265
☒ 4. 266

Question ID : 630680789542
Option 1 ID : 6306803093951
Option 2 ID : 6306803093949
Option 3 ID : 6306803093950
Option 4 ID : 6306803093948

Section : Test of English Language and Comprehension

Q.1 Select the proverb that means the same as the underlined part of the given sentence.
He acquired the research grant through constant ranting and complaining about his economic status.

- Ans ☒ 1. Strike when the iron is hot
☒ 2. The squeaky wheel gets the grease
☒ 3. A stitch in time saves nine
☒ 4. Do not cry over spilt milk

Question ID : 630680158530
Option 1 ID : 630680613639
Option 2 ID : 630680613636
Option 3 ID : 630680613638
Option 4 ID : 630680613637

Q.2 Select the most appropriate ANTONYM of the word 'few' in the given sentence.
The determined and tough athlete overcame several injuries to fulfil her dream of winning an Olympic medal.

- Ans ☒ 1. Fulfil
☒ 2. Several
☒ 3. Determined
☒ 4. Tough

Question ID : 630680324657
Option 1 ID : 6306801263072
Option 2 ID : 6306801263071
Option 3 ID : 6306801263069
Option 4 ID : 6306801263070

Q.3 Select the most appropriate option to fill in the blanks.

Once you reach _____ destination, give me _____ call.

- Ans ☒ 1. the; the
☒ 2. a; a
☒ 3. a; the
☒ 4. the; a

Question ID : 630680274456
Option 1 ID : 6306801066337
Option 2 ID : 6306801066336
Option 3 ID : 6306801066335
Option 4 ID : 6306801066338

Q.4 Select the proverb that means the same as the underlined part of the given sentence.
The teacher advised the student to be happy for being the highest scorer rather than dwelling on the one mark she did not receive.

- Ans**
- ☒ 1. Do not cry over spilt milk
 - ☒ 2. Time and tide wait for none
 - ☒ 3. When the going gets tough, the tough get going
 - ☒ 4. Watch the doughnut and not the hole

Question ID : 630680158531
Option 1 ID : 630680613643
Option 2 ID : 630680613642
Option 3 ID : 630680613640
Option 4 ID : 630680613641

Q.5 Read the sentence carefully and choose an alternative from the following that completes the sentence.

The teacher scolded me in the class as I was very _____.

- Ans**
- ☒ 1. Tall
 - ☒ 2. Comfortable
 - ☒ 3. Dangerous
 - ☒ 4. Talkative

Question ID : 630680296455
Option 1 ID : 6306801153489
Option 2 ID : 6306801153490
Option 3 ID : 6306801153491
Option 4 ID : 6306801153488

Q.6 Select the option that can be used as a one-word substitute for the given group of words.

The art or practice of garden cultivation and management

- Ans**
- ☒ 1. Horticulture
 - ☒ 2. Zoology
 - ☒ 3. Petrology
 - ☒ 4. Heliotherapy

Question ID : 630680837980
Option 1 ID : 6306803282617
Option 2 ID : 6306803282615
Option 3 ID : 6306803282616
Option 4 ID : 6306803282618

Q.7 Select the most appropriate adverb to fill in the blank.
We shall _____ begin our work.

- Ans**
- ☒ 1. daily
 - ☒ 2. today
 - ☒ 3. always
 - ☒ 4. now

Question ID : 630680158235
Option 1 ID : 630680612471
Option 2 ID : 630680612469
Option 3 ID : 630680612468
Option 4 ID : 630680612470

Q.8 Select the most appropriate option to fill in the blank.
As this flat is going for renovation, she is looking for ____ one-room kitchen apartment

- Ans ☒ 1. a
- ☒ 2. an
- ☒ 3. the
- ☒ 4. No article required

Question ID : 63068080495
Option 1 ID : 630680312007
Option 2 ID : 630680312005
Option 3 ID : 630680312006
Option 4 ID : 630680312008

Q.9 Select the most appropriate option to fill in the blank.
The researchers will _____ some of the factors that are contributing to the state's rising inequality.

- Ans ☒ 1. disseminate
- ☒ 2. finance
- ☒ 3. foster
- ☒ 4. examine

Question ID : 630680157376
Option 1 ID : 630680609039
Option 2 ID : 630680609036
Option 3 ID : 630680609037
Option 4 ID : 630680609038

Q.10 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

- A. The chef meticulously crafted each dish with fresh, locally sourced ingredients.
B. The restaurant's reputation for exquisite cuisine grew rapidly.
C. Diners flocked to the establishment, eager to savor the flavors.
D. The restaurant's ambiance added to the overall dining experience.

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

Question ID : 630680446675
Option 1 ID : 6306801743999
Option 2 ID : 6306801743998
Option 3 ID : 6306801744001
Option 4 ID : 6306801744000

Q.11 Select the most appropriate option to fill in the blank.
He _____ his new bicycle all day.

- Ans ☒ 1. has been riding
- ☒ 2. is riding
- ☒ 3. has rode
- ☒ 4. had been riding

Question ID : 630680181745
Option 1 ID : 630680704215
Option 2 ID : 630680704214
Option 3 ID : 630680704217
Option 4 ID : 630680704216

Q.12 Select the option that can be used as a one-word substitute for the given group of words.

A close political meeting

- Ans
- ☐ 1. Bevy
 - ☐ 2. Clique
 - ☐ 3. Flotilla
 - ☒ 4. Caucus

Question ID : 630680837977
Option 1 ID : 6306803282605
Option 2 ID : 6306803282604
Option 3 ID : 6306803282603
Option 4 ID : 6306803282606

Q.13 Select the most appropriate ANTONYM of the underlined word.
The Council was relaxing in the smoking room after their sumptuous dinner.

- Ans
- ☐ 1. pompous
 - ☐ 2. luxurious
 - ☐ 3. tasty
 - ☒ 4. humble

Question ID : 63068071208
Option 1 ID : 630680275420
Option 2 ID : 630680275421
Option 3 ID : 630680275418
Option 4 ID : 630680275419

Q.14 Select the option that can be used as a one-word substitute for the given group of words.

A system of government by the whole population or all the eligible members of a state, typically through elected representatives

- Ans
- ☒ 1. Democracy
 - ☐ 2. Monarchy
 - ☐ 3. Autocracy
 - ☐ 4. Neocracy

Question ID : 630680837979
Option 1 ID : 6306803282614
Option 2 ID : 6306803282612
Option 3 ID : 6306803282611
Option 4 ID : 6306803282613

Q.15 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

- A. It was a beautiful morning, and the sun was just beginning to rise.
- B. They set out on their hike, eager to explore the natural wonders of the forest.
- C. The chirping of birds provided a soothing soundtrack to their journey.
- D. The trail led them through dense woods and beside a babbling brook.

Ans ☒ 1. A, D, B, C
☒ 2. A, B, C, D
☒ 3. D, B, A, C
☒ 4. C, A, D, B

Question ID : 630680441366
Option 1 ID : 6306801723118
Option 2 ID : 6306801723120
Option 3 ID : 6306801723121
Option 4 ID : 6306801723119

Comprehension:

Read the given passage and answer the questions that follow.
Meanings are culturally fluid. A change in the cultural atmosphere can change the very expectations that one attaches with a certain concept, and love is no exception to this belief. I moved from Calcutta to Delhi to Varanasi, and in all the three cities, I found a different concept of what one would call love. Love is neither a universal constant nor is it independent of any variables concerning it. It does strongly vary as the conditions around the potential lovers change. At this position, it is possible that my understanding of all of these is very empirical, rather than a rational abstraction or conceptualisation. When in Calcutta, love meant companionship amalgamated with great comfort; a lover was usually one's best friend, a mushy blanket that one could ever ask for. In Delhi, love became more outright as well as more commodified; people often confused love with physical attraction, everyone had everyone else as a possible partner and it was all too chaotic. Love in Varanasi became quite synonymous with life itself, reviving the very initial showers of this emotion; love here was slow, platonic and contentful; love in this city was a respite! So, you see, the idea of love changes from one cultural setting to another, and hence is quite dynamic.

SubQuestion No : 16

Q.16 According to the passage, which of the following is NOT associated with the idea of love?

Ans ☒ 1. It is culturally fluid.
☒ 2. It is dynamic.
☒ 3. It might vary from city to city.
☒ 4. It is passive.

Question ID : 630680154522
Option 1 ID : 630680597897
Option 2 ID : 630680597896
Option 3 ID : 630680597899
Option 4 ID : 630680597898

Comprehension:

Read the given passage and answer the questions that follow.
Meanings are culturally fluid. A change in the cultural atmosphere can change the very expectations that one attaches with a certain concept, and love is no exception to this belief. I moved from Calcutta to Delhi to Varanasi, and in all the three cities, I found a different concept of what one would call love. Love is neither a universal constant nor is it independent of any variables concerning it. It does strongly vary as the conditions around the potential lovers change. At this position, it is possible that my understanding of all of these is very empirical, rather than a rational abstraction or conceptualisation. When in Calcutta, love meant companionship amalgamated with great comfort; a lover was usually one's best friend, a mushy blanket that one could ever ask for. In Delhi, love became more outright as well as more commodified; people often confused love with physical attraction, everyone had everyone else as a possible partner and it was all too chaotic. Love in Varanasi became quite synonymous with life itself, reviving the very initial showers of this emotion; love here was slow, platonic and contentful; love in this city was a respite! So, you see, the idea of love changes from one cultural setting to another, and hence is quite dynamic.

SubQuestion No : 17

Q.17 From the options below, select the most appropriate title for the above passage.

- Ans ☒ 1. Love in Modern Times
 ☒ 2. How Indians Love
 ☒ 3. Love: a Dynamic Concept
 ☒ 4. Love is Life Itself

Question ID : 630680154521
Option 1 ID : 630680597892
Option 2 ID : 630680597893
Option 3 ID : 630680597894
Option 4 ID : 630680597895

Comprehension:

Read the given passage and answer the questions that follow.
Meanings are culturally fluid. A change in the cultural atmosphere can change the very expectations that one attaches with a certain concept, and love is no exception to this belief. I moved from Calcutta to Delhi to Varanasi, and in all the three cities, I found a different concept of what one would call love. Love is neither a universal constant nor is it independent of any variables concerning it. It does strongly vary as the conditions around the potential lovers change. At this position, it is possible that my understanding of all of these is very empirical, rather than a rational abstraction or conceptualisation. When in Calcutta, love meant companionship amalgamated with great comfort; a lover was usually one's best friend, a mushy blanket that one could ever ask for. In Delhi, love became more outright as well as more commodified; people often confused love with physical attraction, everyone had everyone else as a possible partner and it was all too chaotic. Love in Varanasi became quite synonymous with life itself, reviving the very initial showers of this emotion; love here was slow, platonic and contentful; love in this city was a respite! So, you see, the idea of love changes from one cultural setting to another, and hence is quite dynamic.

SubQuestion No : 18

Q.18 What best defines the tone of the author in the above passage?

- Ans ☒ 1. Rational
 ☒ 2. Objective
 ☒ 3. Empirical
 ☒ 4. Didactic

Question ID : 630680154525
Option 1 ID : 630680597909
Option 2 ID : 630680597908
Option 3 ID : 630680597910
Option 4 ID : 630680597911

Comprehension:

Read the given passage and answer the questions that follow.
Meanings are culturally fluid. A change in the cultural atmosphere can change the very expectations that one attaches with a certain concept, and love is no exception to this belief. I moved from Calcutta to Delhi to Varanasi, and in all the three cities, I found a different concept of what one would call love. Love is neither a universal constant nor is it independent of any variables concerning it. It does strongly vary as the conditions around the potential lovers change. At this position, it is possible that my understanding of all of these is very empirical, rather than a rational abstraction or conceptualisation. When in Calcutta, love meant companionship amalgamated with great comfort; a lover was usually one's best friend, a mushy blanket that one could ever ask for. In Delhi, love became more outright as well as more commodified; people often confused love with physical attraction, everyone had everyone else as a possible partner and it was all too chaotic. Love in Varanasi became quite synonymous with life itself, reviving the very initial showers of this emotion; love here was slow, platonic and contentful; love in this city was a respite! So, you see, the idea of love changes from one cultural setting to another, and hence is quite dynamic.

SubQuestion No : 19

Q.19 Which word in the passage means 'satisfied'?

- Ans ☒ 1. Amalgamated
☒ 2. Outright
☒ 3. Respite
☒ 4. Contentful

Question ID : 630680154523
Option 1 ID : 630680597901
Option 2 ID : 630680597900
Option 3 ID : 630680597903
Option 4 ID : 630680597902

Comprehension:

Read the given passage and answer the questions that follow.
Meanings are culturally fluid. A change in the cultural atmosphere can change the very expectations that one attaches with a certain concept, and love is no exception to this belief. I moved from Calcutta to Delhi to Varanasi, and in all the three cities, I found a different concept of what one would call love. Love is neither a universal constant nor is it independent of any variables concerning it. It does strongly vary as the conditions around the potential lovers change. At this position, it is possible that my understanding of all of these is very empirical, rather than a rational abstraction or conceptualisation. When in Calcutta, love meant companionship amalgamated with great comfort; a lover was usually one's best friend, a mushy blanket that one could ever ask for. In Delhi, love became more outright as well as more commodified; people often confused love with physical attraction, everyone had everyone else as a possible partner and it was all too chaotic. Love in Varanasi became quite synonymous with life itself, reviving the very initial showers of this emotion; love here was slow, platonic and contentful; love in this city was a respite! So, you see, the idea of love changes from one cultural setting to another, and hence is quite dynamic.

SubQuestion No : 20

Q.20 Select a most appropriate ANTONYM for the word 'dynamic'.

- Ans ☒ 1. Active
☒ 2. Moving
☒ 3. Static
☒ 4. Ever-changing

Question ID : 630680154524
Option 1 ID : 630680597906
Option 2 ID : 630680597907
Option 3 ID : 630680597905
Option 4 ID : 630680597904

Q.1 " तुम अपने मत का स्पष्टीकरण करो " वाक्य में त्रुटिकी पहचान उपयुक्त विकल्प चुन कर करें-

- Ans
- ☒ 1. मत का
 - ☒ 2. तुम
 - ☒ 3. अपने
 - ☒ 4. स्पष्टीकरण करो

Question ID : 630680794038
Option 1 ID : 6306803111301
Option 2 ID : 6306803111299
Option 3 ID : 6306803111300
Option 4 ID : 6306803111302

Q.2 निम्न मुहावरे का सही अर्थ पहचानें।
बल्लियों उछलना

- Ans
- ☒ 1. बल्लियों को छूना
 - ☒ 2. अत्यंत भावावेश में होना
 - ☒ 3. बहुत ऊँचा उछलना
 - ☒ 4. आसमान की सैर करना

Question ID : 630680343338
Option 1 ID : 6306801335728
Option 2 ID : 6306801335725
Option 3 ID : 6306801335726
Option 4 ID : 6306801335727

Q.3 "आँख का अंधा नाम नयनसुख" लोकोक्ति का अर्थ है -

- Ans
- ☒ 1. गुण के अनुरूप नाम होना
 - ☒ 2. गुणवान होना
 - ☒ 3. गुण के विरुद्ध नाम होना
 - ☒ 4. आँखों से कम दिखाई देना

Question ID : 630680165008
Option 1 ID : 630680639079
Option 2 ID : 630680639077
Option 3 ID : 630680639078
Option 4 ID : 630680639076

Q.4 निम्न वाक्य में त्रुटि की पहचान करें -
पुस्तकों में यह श्रेष्ठ है।

- Ans
- ☒ 1. श्रेष्ठ
 - ☒ 2. पुस्तकों में
 - ☒ 3. यह
 - ☒ 4. है

Question ID : 630680773638
Option 1 ID : 6306803032503
Option 2 ID : 6306803032501
Option 3 ID : 6306803032502
Option 4 ID : 6306803032504

Q.5 निम्नलिखित में से किस एक वाक्य में वर्तनी संबंधी अशुद्धि है?

- Ans ☒ 1. जहाज तुफान में घिर गया।
☐ 2. कल उसकी परीक्षा है।
☐ 3. उसे अभिमान है।
☐ 4. गेंद का आकार गोल है।

Question ID : 63068064672
Option 1 ID : 630680249656
Option 2 ID : 630680249655
Option 3 ID : 630680249657
Option 4 ID : 630680249654

Q.6 'आसमान से गिरा _____ पर अटका।' लोकोक्ति को पूरा करने के लिए सही विकल्प/शब्द का चयन करें।

- Ans ☐ 1. जामुन
☐ 2. छत
☒ 3. खजूर
☐ 4. आम

Question ID : 630680791277
Option 1 ID : 6306803100834
Option 2 ID : 6306803100832
Option 3 ID : 6306803100835
Option 4 ID : 6306803100833

Q.7 निम्नलिखित में कौन सा एक वाक्य शुद्ध है?

- Ans ☐ 1. गरीबों को अहार दो।
☐ 2. दिवाली महत्वपूर्ण पर्व है।
☒ 3. वाल्मीकि संस्कृत के आदि कवि हैं।
☐ 4. मुझे स्कूल का पता मालुम है।

Question ID : 63068064671
Option 1 ID : 630680249653
Option 2 ID : 630680249650
Option 3 ID : 630680249651
Option 4 ID : 630680249652

Q.8 दिए गए विकल्पों में शुद्ध वाक्य है-

- Ans ☒ 1. पेड़ पर पक्षी बोल रहे हैं।
☐ 2. पेड़ में पक्षी बोल रहे हैं।
☐ 3. पेड़ को पक्षी बोल रहे हैं।
☐ 4. पेड़ से पक्षी बोल रहे हैं।

Question ID : 630680790911
Option 1 ID : 6306803099373
Option 2 ID : 6306803099374
Option 3 ID : 6306803099375
Option 4 ID : 6306803099372

Q.9 निम्नलिखित शब्दों में से 'अक्षत' का विलोम है-

- Ans ☒ 1. क्षय
☒ 2. रक्षित
☒ 3. विक्षत
☒ 4. संक्षिप्त

Question ID : 630680123567
Option 1 ID : 630680479153
Option 2 ID : 630680479152
Option 3 ID : 630680479151
Option 4 ID : 630680479150

Q.10 निम्नलिखित में से कौन सा विकल्प युग्म 'मुहताज' का पर्यायवाची नहीं है?

- Ans ☒ 1. अधीन-परोपजीवी
☒ 2. परवश-अधीनस्थ
☒ 3. इतिवृत्त-निरूपण
☒ 4. परमुखापेक्षी-पराधीन

Question ID : 630680162670
Option 1 ID : 630680629976
Option 2 ID : 630680629977
Option 3 ID : 630680629978
Option 4 ID : 630680629979

Q.11 निम्नलिखित विकल्पों में से कौनसा विकल्प नश्वर का विलोम शब्द है।

- Ans ☒ 1. निषिद्ध
☒ 2. नैसर्गिक
☒ 3. सामिष
☒ 4. शाश्वत

Question ID : 630680157119
Option 1 ID : 630680608021
Option 2 ID : 630680608023
Option 3 ID : 630680608022
Option 4 ID : 630680608020

Q.12 दिए गए वाक्यांश के लिए निम्न में से सार्थक शब्द का चयन करें-
सूर्य जिस पर्वत के पीछे निकलता है-

- Ans ☒ 1. हिमालय
☒ 2. उदयाचल
☒ 3. कैलाश
☒ 4. अस्ताचल

Question ID : 630680291964
Option 1 ID : 6306801135738
Option 2 ID : 6306801135737
Option 3 ID : 6306801135739
Option 4 ID : 6306801135736

Q.13 दो या दो से अधिक धातुओं के मेल से बनने वाली क्रिया को _____ कहते हैं।
रिक्त स्थान के लिए उचित शब्द है-

- Ans
- ☐ 1. द्विकर्मक क्रिया
 - ☐ 2. सहयोगी क्रिया
 - ☐ 3. पूर्ण क्रिया
 - ☒ 4. संयुक्त क्रिया

Question ID : 63068064457
Option 1 ID : 630680248802
Option 2 ID : 630680248803
Option 3 ID : 630680248805
Option 4 ID : 630680248804

Q.14 निम्नलिखित वाक्य में किस क्रिया विशेषण की अशुद्धि है? पहचान करें –
तुम जितना खाती हो, वैसे तो कोई भैंस भी नहीं खाती

- Ans
- ☒ 1. परिमाणवाचक क्रिया विशेषण
 - ☐ 2. स्थानवाचक क्रिया विशेषण
 - ☐ 3. रीतिवाचक क्रिया विशेषण
 - ☐ 4. कालवाचक क्रिया विशेषण

Question ID : 630680828700
Option 1 ID : 6306803246091
Option 2 ID : 6306803246093
Option 3 ID : 6306803246090
Option 4 ID : 6306803246092

Q.15 शैल, भूधर पर्यायवाची शब्दों का अर्थ है –

- Ans
- ☐ 1. वृक्ष
 - ☐ 2. भूप
 - ☒ 3. पर्वत
 - ☐ 4. नभ

Question ID : 63068056133
Option 1 ID : 630680216525
Option 2 ID : 630680216524
Option 3 ID : 630680216523
Option 4 ID : 630680216522

Comprehension:

ज़िन्दगी को ठीक से जीना हमेशा ही जोखिम 1 _____ है और जो आदमी 2 _____ जीने के लिए जोखिम की हर जगह पर एक घेरा डालता है, वह अंततः अपने ही घेरों के बीच कैद हो जाता है और ज़िन्दगी का कोई मजा उसे नहीं मिल पाता; क्योंकि 3 _____ से बचने की कोशिश में असल में उसने ज़िन्दगी को ही आने से रोक रखा है। ज़िन्दगी से, अंत में, हम उतना ही पाते हैं जितनी कि उसमें 4 _____ लगाते हैं। यह पूँजी लगाना ज़िन्दगी के संकटों का सामना करना है, उसके उस 5 _____ को उलट कर पढ़ना है जिसके सभी अक्षर फूलों से ही नहीं, कुछ अंगारों से भी लिखे गए हैं। ज़िन्दगी का भेद कुछ उसे ही मालूम है जो यह जानकार चलता है कि ज़िन्दगी कभी भी ख़त्म न होने वाली चीज़ है।

SubQuestion No : 16

Q.16 Q_1 रिक्त स्थान (1) _____ के लिए सर्वाधिक उपयुक्त शब्द होगा-

- Ans** ☒ 1. जुलना
☒ 2. झुलाना
☒ 3. मिलना
☒ 4. झेलना

Question ID : 630680798437
Option 1 ID : 6306803128628
Option 2 ID : 6306803128630
Option 3 ID : 6306803128627
Option 4 ID : 6306803128629

Comprehension:

ज़िन्दगी को ठीक से जीना हमेशा ही जोखिम 1 _____ है और जो आदमी 2 _____ जीने के लिए जोखिम की हर जगह पर एक घेरा डालता है, वह अंततः अपने ही घेरों के बीच कैद हो जाता है और ज़िन्दगी का कोई मजा उसे नहीं मिल पाता; क्योंकि 3 _____ से बचने की कोशिश में असल में उसने ज़िन्दगी को ही आने से रोक रखा है। ज़िन्दगी से, अंत में, हम उतना ही पाते हैं जितनी कि उसमें 4 _____ लगाते हैं। यह पूँजी लगाना ज़िन्दगी के संकटों का सामना करना है, उसके उस 5 _____ को उलट कर पढ़ना है जिसके सभी अक्षर फूलों से ही नहीं, कुछ अंगारों से भी लिखे गए हैं। ज़िन्दगी का भेद कुछ उसे ही मालूम है जो यह जानकार चलता है कि ज़िन्दगी कभी भी ख़त्म न होने वाली चीज़ है।

SubQuestion No : 17

Q.17 Q_5 गद्यांश के रिक्त स्थान (5) _____ के लिए सर्वाधिक उपयुक्त शब्द होगा-

- Ans** ☒ 1. अक्षर
☒ 2. पत्रे
☒ 3. पद
☒ 4. लेख

Question ID : 630680798441
Option 1 ID : 6306803128644
Option 2 ID : 6306803128646
Option 3 ID : 6306803128645
Option 4 ID : 6306803128643

Comprehension:

ज़िन्दगी को ठीक से जीना हमेशा ही जोखिम 1 _____ है और जो आदमी 2 _____ जीने के लिए जोखिम की हर जगह पर एक घेरा डालता है, वह अंततः अपने ही घेरों के बीच कैद हो जाता है और ज़िन्दगी का कोई मजा उसे नहीं मिल पाता; क्योंकि 3 _____ से बचने की कोशिश में असल में उसने ज़िन्दगी को ही आने से रोक रखा है। ज़िन्दगी से, अंत में, हम उतना ही पाते हैं जितनी कि उसमें 4 _____ लगाते हैं। यह पूँजी लगाना ज़िन्दगी के संकटों का सामना करना है, उसके उस 5 _____ को उलट कर पढ़ना है जिसके सभी अक्षर फूलों से ही नहीं, कुछ अंगारों से भी लिखे गए हैं। ज़िन्दगी का भेद कुछ उसे ही मालूम है जो यह जानकार चलता है कि ज़िन्दगी कभी भी ख़त्म न होने वाली चीज़ है।

SubQuestion No : 18

Q.18 Q_3 गद्यांश के रिक्त स्थान (3) _____ के लिए सर्वाधिक उपयुक्त शब्द होगा-

- Ans** ☒ 1. रहस्य
☒ 2. सबक
☒ 3. जोखिम
☒ 4. दुर्घटना

Question ID : 630680798439
Option 1 ID : 6306803128636
Option 2 ID : 6306803128637
Option 3 ID : 6306803128635
Option 4 ID : 6306803128638

Comprehension:

ज़िन्दगी को ठीक से जीना हमेशा ही जोखिम 1 _____ है और जो आदमी 2 _____ जीने के लिए जोखिम की हर जगह पर एक घेरा डालता है, वह अंततः अपने ही घेरों के बीच कैद हो जाता है और ज़िन्दगी का कोई मजा उसे नहीं मिल पाता; क्योंकि 3 _____ से बचने की कोशिश में असल में उसने ज़िन्दगी को ही आने से रोक रखा है। ज़िन्दगी से, अंत में, हम उतना ही पाते हैं जितनी कि उसमें 4 _____ लगाते हैं। यह पूँजी लगाना ज़िन्दगी के संकटों का सामना करना है, उसके उस 5 _____ को उलट कर पढ़ना है जिसके सभी अक्षर फूलों से ही नहीं, कुछ अंगारों से भी लिखे गए हैं। ज़िन्दगी का भेद कुछ उसे ही मालूम है जो यह जानकार चलता है कि ज़िन्दगी कभी भी ख़त्म न होने वाली चीज़ है।

SubQuestion No : 19

Q.19 Q_4 गद्यांश के रिक्त स्थान (4) _____ के लिए सर्वाधिक उपयुक्त शब्द होगा-

- Ans** ☒ 1. जोखिम
☒ 2. हौसला
☒ 3. हिम्मत
☒ 4. पूँजी

Question ID : 630680798440
Option 1 ID : 6306803128642
Option 2 ID : 6306803128641
Option 3 ID : 6306803128639
Option 4 ID : 6306803128640

Comprehension:

ज़िन्दगी को ठीक से जीना हमेशा ही जोखिम 1 _____ है और जो आदमी 2 _____ जीने के लिए जोखिम की हर जगह पर एक घेरा डालता है, वह अंततः अपने ही घेरों के बीच कैद हो जाता है और ज़िन्दगी का कोई मजा उसे नहीं मिल पाता; क्योंकि 3 _____ से बचने की कोशिश में असल में उसने ज़िन्दगी को ही आने से रोक रखा है। ज़िन्दगी से, अंत में, हम उतना ही पाते हैं जितनी कि उसमें 4 _____ लगाते हैं। यह पूँजी लगाना ज़िन्दगी के संकटों का सामना करना है, उसके उस 5 _____ को उलट कर पढ़ना है जिसके सभी अक्षर फूलों से ही नहीं, कुछ अंगारों से भी लिखे गए हैं। ज़िन्दगी का भेद कुछ उसे ही मालूम है जो यह जानकार चलता है कि ज़िन्दगी कभी भी ख़त्म न होने वाली चीज़ है।

SubQuestion No : 20

Q.20 Q_2 गद्यांश के रिक्त स्थान (2) _____ के लिए सर्वाधिक उपयुक्त शब्द होगा-

- Ans
- ☐ 1. कुशल
 - ☐ 2. निपुण
 - ☒ 3. सकुशल
 - ☐ 4. कुशलता

Question ID : 630680798438
Option 1 ID : 6306803128632
Option 2 ID : 6306803128634
Option 3 ID : 6306803128631
Option 4 ID : 6306803128633

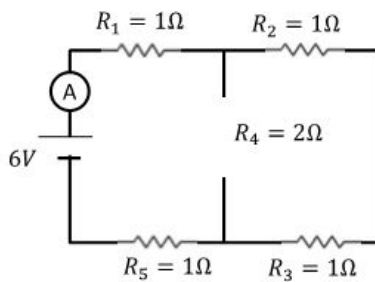
Section : Discipline1

Q.1 The electrostatic field due to a fixed charge 'Q' at a point varies as a function of distance 'r' as:

- Ans
- ☐ 1. $\frac{1}{r}$
 - ☐ 2. $\frac{1}{r^3}$
 - ☒ 3. $\frac{1}{r^2}$
 - ☐ 4. Independent of 'r'

Question ID : 630680160440
Option 1 ID : 630680621132
Option 2 ID : 630680621134
Option 3 ID : 630680621133
Option 4 ID : 630680621135

Q.2 In the following circuit, battery is of EMF 6 V and its internal resistance is $1\ \Omega$. Find the value of the total current measured by ammeter 'A', which is having negligible resistance.



- Ans**
- ☒ 1. 2.5 A
 - ☒ 2. 1.5 A
 - ☒ 3. 2 A
 - ☒ 4. 3 A

Question ID : 630680347772
 Option 1 ID : 6306801353378
 Option 2 ID : 6306801353377
 Option 3 ID : 6306801353379
 Option 4 ID : 6306801353380

Q.3 Which of the following is the Standard International (SI) unit of force?

- Ans**
- ☒ 1. Joule
 - ☒ 2. Newton
 - ☒ 3. Pascal
 - ☒ 4. Metre

Question ID : 630680692627
 Option 1 ID : 6306802712789
 Option 2 ID : 6306802712788
 Option 3 ID : 6306802712790
 Option 4 ID : 6306802712787

Q.4 What is the value of the velocity of a satellite to revolve in an orbit just near the surface of Earth?

- Ans**
- ☒ 1. 7.92 kms^{-1}
 - ☒ 2. 9.8 kms^{-1}
 - ☒ 3. 11.2 kms^{-1}
 - ☒ 4. 9.4 kms^{-1}

Question ID : 630680347763
 Option 1 ID : 6306801353343
 Option 2 ID : 6306801353344
 Option 3 ID : 6306801353342
 Option 4 ID : 6306801353341

Q.5 The feedback network in a Colpitts oscillator consists of:

- Ans**
- ☐ 1. three pairs of RC circuit
 - ☐ 2. two inductors and a capacitor
 - ☐ 3. three pairs of RL circuit
 - ☒ 4. two capacitors and an inductor

Question ID : 63068090170
Option 1 ID : 630680349454
Option 2 ID : 630680349457
Option 3 ID : 630680349455
Option 4 ID : 630680349456

Q.6 A system does 800 J of work when 200 calories of heat is given to it. The change in the internal energy of the system will be approximately equal to _____.

- Ans**
- ☐ 1. 1640 J
 - ☒ 2. Approx. 37 J
 - ☐ 3. 800 J
 - ☐ 4. 840 J

Question ID : 630680238887
Option 1 ID : 630680926565
Option 2 ID : 630680926564
Option 3 ID : 630680926567
Option 4 ID : 630680926566

Q.7 Two satellites, P and Q, have time periods in the ratio of 125 : 1. The ratio of their radii, respectively, will be:

- Ans**
- ☐ 1. 5 : 1
 - ☐ 2. 125 : 1
 - ☐ 3. 1 : 125
 - ☒ 4. 25 : 1

Question ID : 630680694423
Option 1 ID : 6306802719961
Option 2 ID : 6306802719960
Option 3 ID : 6306802719962
Option 4 ID : 6306802719959

Q.8 If the force between two parallel current carrying conductors is attractive in nature, the direction of current in these conductors is:

- Ans**
- ☐ 1. independent of force
 - ☐ 2. in the opposite direction
 - ☐ 3. when current in both the conductors is zero
 - ☒ 4. in the same direction

Question ID : 630680402922
Option 1 ID : 6306801571274
Option 2 ID : 6306801571271
Option 3 ID : 6306801571273
Option 4 ID : 6306801571272

Q.9 Two cells of EMF ' ϵ ' having internal resistance ' r ' each are connected in series, the effective EMF and the total internal resistance of the combination, respectively, will be:

- Ans
- ☒ 1. $\frac{\epsilon}{2}; \frac{r}{2}$
 - ☒ 2. $2\epsilon; 2r$
 - ☒ 3. $2\epsilon; \frac{r}{2}$
 - ☒ 4. $\frac{\epsilon}{2}; 2r$

Question ID : 630680702720
Option 1 ID : 6306802752701
Option 2 ID : 6306802752702
Option 3 ID : 6306802752703
Option 4 ID : 6306802752704

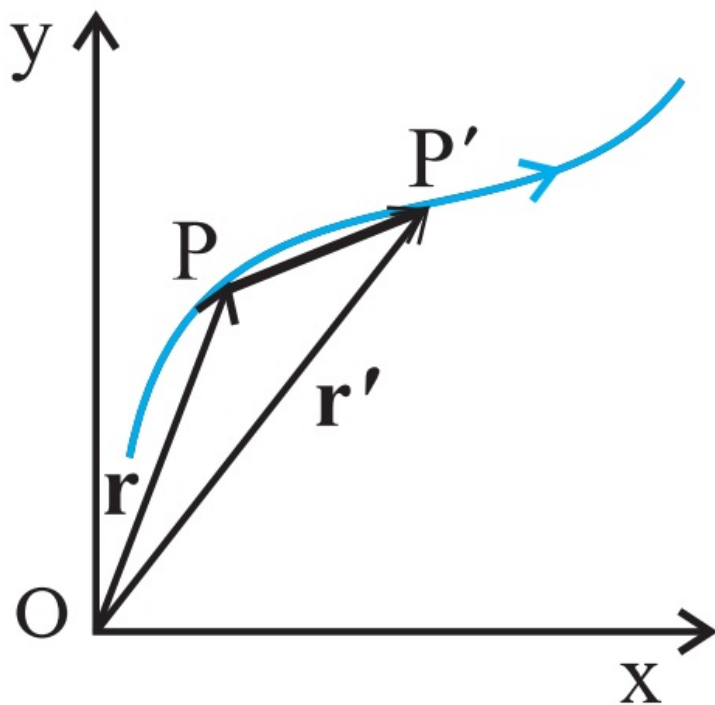
Q.10 If any object of mass 2 kg revolves around a track of radius 0.2 m with velocity 20 m/s, calculate the angular momentum of the object.

- Ans
- ☒ 1. $6 \text{ kgm}^2\text{s}^{-1}$
 - ☒ 2. $8 \text{ kgm}^2\text{s}^{-1}$
 - ☒ 3. $80 \text{ kgm}^2\text{s}^{-1}$
 - ☒ 4. $60 \text{ kgm}^2\text{s}^{-1}$

Question ID : 630680347760
Option 1 ID : 6306801353331
Option 2 ID : 6306801353329
Option 3 ID : 6306801353330
Option 4 ID : 6306801353332



Q.11 Identify displacement vector from the given image.



Ans ☒ 1. PP'

☐ 2. P'O

☐ 3. OP'

☐ 4. OP

Question ID : 630680693470

Option 1 ID : 6306802716012

Option 2 ID : 6306802716015

Option 3 ID : 6306802716014

Option 4 ID : 6306802716013

Q.12 The pressure (P) exerted by a liquid column depends on the height of the column (h) as:

Ans ☐ 1. $P \propto \frac{1}{h}$

☐ 2. $P \propto (h)^3$

☒ 3. $P \propto h$

☐ 4. $P \propto \frac{1}{(h)^2}$

Question ID : 630680694725

Option 1 ID : 6306802721163

Option 2 ID : 6306802721164

Option 3 ID : 6306802721165

Option 4 ID : 6306802721166

Q.13 Taking into account significant figures, what will be the value of $20.112 + 5.5$?

- Ans ☒ 1. 25.6
- ☐ 2. 25
- ☐ 3. 25.61
- ☐ 4. 25.612

Question ID : 630680692625
Option 1 ID : 6306802712782
Option 2 ID : 6306802712779
Option 3 ID : 6306802712780
Option 4 ID : 6306802712781

Q.14 Kinetic energy of the body under simple harmonic motion, at mean position is same as

- 1) Kinetic energy at extreme position
- 2) potential energy at mean position
- 3) Mechanical energy at any position
- 4) potential energy at extreme position

- Ans ☐ 1. 1 and 4 only
- ☐ 2. 4 only
- ☒ 3. 3 and 4 only
- ☐ 4. 2 only

Question ID : 630680238774
Option 1 ID : 630680926113
Option 2 ID : 630680926112
Option 3 ID : 630680926115
Option 4 ID : 630680926114

Q.15 A long air cored solenoid of length 'l' and area of cross section 'A', having N_1 turns, has a secondary coaxial coil S of cross section 'A1', having N_2 turns inside it ($A > A_1$). If n_1 is the number of turns per unit length of primary coil, then what is the value of mutual inductance M of solenoid?

- Ans ☒ 1. $M = \mu_0 n_1 N_2 A$
- ☐ 2. $M = \mu_0 n_1 N_2 A l$
- ☐ 3. $M = \mu n_1 N_2$
- ☐ 4. $M = \mu_0 N_1 N_2 A$

Question ID : 630680347775
Option 1 ID : 6306801353391
Option 2 ID : 6306801353392
Option 3 ID : 6306801353390
Option 4 ID : 6306801353389

Q.16 (A + B) is a unit vector along x-axis, if $A = 2\hat{i} - \hat{j} + 3\hat{k}$ then what is the value of B?

Ans

☐ 1. $-\hat{i} + \hat{j} - 4\hat{k}$

☒ 2. $-\hat{i} + \hat{j} - 3\hat{k}$

☐ 3. $\hat{i} - \hat{j} - 3\hat{k}$

☐ 4. $-\hat{i} + \hat{j} + 3\hat{k}$

Question ID : 63068090345
Option 1 ID : 630680350157
Option 2 ID : 630680350155
Option 3 ID : 630680350154
Option 4 ID : 630680350156

Q.17 According to the Law of Equipartition of Energy, the ratio of specific heat at constant pressure C_p and specific heat at constant volume C_v of an ideal diatomic gas ($\frac{C_p}{C_v}$) is equal to:

Ans

☐ 1. $\frac{5}{7}$

☐ 2. $\frac{9}{7}$

☐ 3. $\frac{7}{9}$

☒ 4. $\frac{7}{5}$

Question ID : 630680696880
Option 1 ID : 6306802729684
Option 2 ID : 6306802729685
Option 3 ID : 6306802729686
Option 4 ID : 6306802729683

Q.18 The force of attraction between the plates of an air capacitor in terms of the capacitance 'C', distance 'd' between the plates of the capacitor and the potential difference 'V' applied in between the plates will be:

Ans

☐ 1. $\frac{C^2 V^2}{2d}$

☐ 2. $\frac{C^2 V^2}{2d^2}$

☒ 3. $\frac{CV^2}{d}$

☐ 4. $\frac{CV^2}{2d}$

Question ID : 630680701868
Option 1 ID : 6306802749382
Option 2 ID : 6306802749383
Option 3 ID : 6306802749381
Option 4 ID : 6306802749384

Q.19 Energy of a photon of wavelength 1Å is(given $h = 6.63 \times 10^{-34}$ Js, $c = 3 \times 10^8$ m/s and $e = 1.603 \times 10^{-19}$ C):

- Ans** ☒ 1. 12.41 eV
☒ 2. 19.9 keV
☒ 3. 12.41 keV
☒ 4. 19.9 eV

Question ID : 63068090085
Option 1 ID : 630680349116
Option 2 ID : 630680349117
Option 3 ID : 630680349115
Option 4 ID : 630680349114

Q.20 The following truth table is for which logic gate?

A	X
0	1
1	0

- Ans** ☒ 1. AND gate
☒ 2. NOR gate
☒ 3. OR gate
☒ 4. NOT gate

Question ID : 630680163858
Option 1 ID : 630680634568
Option 2 ID : 630680634569
Option 3 ID : 630680634570
Option 4 ID : 630680634571

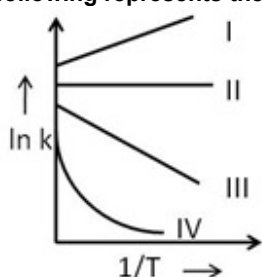
Section : Discipline2

Q.1 Hydrogen bonding is about _____ of the strength of the covalent bond.

- Ans** ☒ 1. one
☒ 2. one fifth
☒ 3. one tenth
☒ 4. one fourth

Question ID : 630680198298
Option 1 ID : 630680769366
Option 2 ID : 630680769365
Option 3 ID : 630680769363
Option 4 ID : 630680769364

Q.2 According to Arrhenius equation, rate constant k is equal to $Ae^{-E_a/RT}$. Which of the following represents the correct graph of $\ln k$ vs $1/T$?



Ans ☒ 1. III

☐ 2. I

☐ 3. IV

☐ 4. II

Question ID : 630680236517

Option 1 ID : 630680917466

Option 2 ID : 630680917464

Option 3 ID : 630680917467

Option 4 ID : 630680917465

Q.3 The oxidation number of phosphorous in NaH_2PO_4 is:

Ans ☐ 1. 0

☒ 2. +5

☐ 3. -5

☐ 4. +3

Question ID : 63068086647

Option 1 ID : 630680335999

Option 2 ID : 630680335997

Option 3 ID : 630680335998

Option 4 ID : 630680335996

Q.4 When anisole is treated with acetyl chloride in the presence of anhydrous chloride, it forms:

Ans ☐ 1. o-methoxyacetophenone

☐ 2. m-methoxyacetophenone

☐ 3. p-methoxyacetophenone

☒ 4. o-methoxyacetophenone and p-methoxyacetophenone

Question ID : 630680155724

Option 1 ID : 630680602631

Option 2 ID : 630680602628

Option 3 ID : 630680602630

Option 4 ID : 630680602629

Q.5 Which soil pollutant whose high persistent will transferred from lower tropic level to higher tropic level through food chain?

- Ans**
- ☐ 1. Agricultural waste
 - ☐ 2. Pathogens
 - ☒ 3. Pesticides
 - ☐ 4. Industrial waste

Question ID : 63068081252
Option 1 ID : 630680315041
Option 2 ID : 630680315039
Option 3 ID : 630680315038
Option 4 ID : 630680315040

Q.6 Which of the following metals is used in bulletproof jackets?

- Ans**
- ☐ 1. Aluminium
 - ☐ 2. Sodium
 - ☒ 3. Boron
 - ☐ 4. Magnesium

Question ID : 63068086691
Option 1 ID : 630680336172
Option 2 ID : 630680336174
Option 3 ID : 630680336173
Option 4 ID : 630680336175

Q.7 When colloidal solutions are viewed under a powerful ultramicroscope, the colloidal particles appear to be in a state of a continuous zig-zag motion all over the field of view. Who observed this movement?

- Ans**
- ☒ 1. Robert Brown
 - ☐ 2. Zsigmondy
 - ☐ 3. JJ Thompson
 - ☐ 4. James Chadwick

Question ID : 630680233269
Option 1 ID : 630680905053
Option 2 ID : 630680905054
Option 3 ID : 630680905055
Option 4 ID : 630680905056

Q.8 Calculate Gibb's Free Energy for a reaction $3/2\text{O}_2(\text{g}) \rightarrow \text{O}_3(\text{g})$ at 298K.

Given:

$$K_p = 2.47 \times 10^{-29}$$

$$R = 8.314 \text{ JK}^{-1} \text{ mol}^{-1}$$

- Ans**
- ☐ 1. 163 Jmol⁻¹
 - ☐ 2. -163 Jmol⁻¹
 - ☐ 3. -1,63,000 Jmol⁻¹
 - ☒ 4. 1,63,000 Jmol⁻¹

Question ID : 630680237659
Option 1 ID : 630680921653
Option 2 ID : 630680921655
Option 3 ID : 630680921654
Option 4 ID : 630680921652

Q.9 Which distillation process is based on the principle of Dalton's law of partial pressure?

- Ans** ☒ 1. Steam distillation
☐ 2. Simple distillation
☐ 3. Vacuum distillation
☐ 4. Fractional distillation

Question ID : 63068083182
Option 1 ID : 630680322589
Option 2 ID : 630680322591
Option 3 ID : 630680322588
Option 4 ID : 630680322590

Q.10 Select the correct magnetic property of these lanthanide ions: Ce^{4+} , Yb^{2+} and Lu^{3+} .

- Ans** ☒ 1. All are diamagnetic
☐ 2. Only Yb^{2+} is diamagnetic
☐ 3. Only Lu^{3+} is diamagnetic
☐ 4. Only Ce^{4+} is diamagnetic

Question ID : 630680285061
Option 1 ID : 6306801108222
Option 2 ID : 6306801108220
Option 3 ID : 6306801108221
Option 4 ID : 6306801108219

Q.11 Which of the following statements is correct?

- Ans** ☐ 1. Carbon is a metalloid.
☐ 2. Lead is a non-metal.
☐ 3. Germanium is pure metal.
☒ 4. Silicon is a metalloid.

Question ID : 63068086696
Option 1 ID : 630680336192
Option 2 ID : 630680336195
Option 3 ID : 630680336193
Option 4 ID : 630680336194

Q.12 Which of the following molecules do NOT show the same number of resonance hybrid?

- Ans** ☐ 1. C_6H_6
☐ 2. SO_2
☒ 3. SO_3
☐ 4. O_3

Question ID : 630680212982
Option 1 ID : 630680826018
Option 2 ID : 630680826015
Option 3 ID : 630680826017
Option 4 ID : 630680826016

Q.13 The IUPAC name of $C_2H_5OCH_3$ is _____.

- Ans
- ☐ 1. ethoxy methane
 - ☐ 2. methyl ethyl ether
 - ☐ 3. ethyl methyl ether
 - ☒ 4. methoxy ethane

Question ID : 630680155723

Option 1 ID : 630680602625

Option 2 ID : 630680602626

Option 3 ID : 630680602627

Option 4 ID : 630680602624

Q.14 Aromatisation of alkanes takes place upon heating to 773 K at 10-20 atmospheric pressure in the presence of _____.

- Ans
- ☐ 1. Pt
 - ☒ 2. Cr_2O_3
 - ☐ 3. Zn, H^+
 - ☐ 4. CaO

Question ID : 630680347716

Option 1 ID : 6306801353154

Option 2 ID : 6306801353153

Option 3 ID : 6306801353156

Option 4 ID : 6306801353155

Q.15 When ammonium salt is heated with base, it forms:

- Ans
- ☐ 1. Nitrous Acid
 - ☐ 2. nitrogen dioxide
 - ☐ 3. nitric acid
 - ☒ 4. ammonia

Question ID : 63068087377

Option 1 ID : 630680338900

Option 2 ID : 630680338899

Option 3 ID : 630680338898

Option 4 ID : 630680338897

Q.16 The energy of hydrogen bond varies between:

- Ans
- ☐ 1. 0 to 50 kJ mol^{-1}
 - ☐ 2. 20 to 200 kJ mol^{-1}
 - ☒ 3. 10 to 100 kJ mol^{-1}
 - ☐ 4. 30 to 100 kJ mol^{-1}

Question ID : 630680212988

Option 1 ID : 630680826040

Option 2 ID : 630680826039

Option 3 ID : 630680826041

Option 4 ID : 630680826042

Q.17 Alkali metals react with liquid ammonia to give deep blue coloured solution. The blue colour is due to:

- Ans**
- ☐ 1. outermost electron of alkali metal
 - ☐ 2. lone pair of ammonia
 - ☐ 3. diamagnetic nature of solution
 - ☒ 4. ammoniated electron

Question ID : 63068086673
Option 1 ID : 630680336100
Option 2 ID : 630680336103
Option 3 ID : 630680336102
Option 4 ID : 630680336101

Q.18 Which of the following is NOT a correct statement about the higher acidity of carboxylic acid as compared to phenol?

- Ans**
- ☐ 1. Greater resonance stabilisation of carboxylate ion.
 - ☒ 2. Greater resonance stabilisation of phenoxide ion.
 - ☐ 3. Phenoxide ion resonance structures have a negative charge at the less electro-negative carbon atom.
 - ☐ 4. Carboxylate resonance structures have a negative charge at the more electro-negative atom of oxygen.

Question ID : 630680373785
Option 1 ID : 6306801456413
Option 2 ID : 6306801456414
Option 3 ID : 6306801456412
Option 4 ID : 6306801456411

Q.19 Which of the following vitamins is used as an antioxidant?

- Ans**
- ☐ 1. Ascorbic acid
 - ☐ 2. Tocopherol
 - ☐ 3. Biotin
 - ☒ 4. Both Ascorbic acid and Tocopherol

Question ID : 630680211026
Option 1 ID : 630680818255
Option 2 ID : 630680818256
Option 3 ID : 630680818257
Option 4 ID : 630680818258

Q.20 When phenol is treated with an excess of bromine water, it forms:

- Ans**
- ☐ 1. 3,4-dibromophenol
 - ☐ 2. 3,5,6-tribromophenol
 - ☐ 3. 2,4-bibromophenol
 - ☒ 4. 2,4,6-tribromophenol

Question ID : 63068080204
Option 1 ID : 630680310841
Option 2 ID : 630680310844
Option 3 ID : 630680310842
Option 4 ID : 630680310843

Q.1 Which of the following features is NOT used as a basis of animal classification?

- Ans** ☒ 1. Levels of organisation
- ☒ 2. Patterns of growth
- ☒ 3. Nature of coelom
- ☒ 4. Body symmetry

Question ID : 630680785411
Option 1 ID : 6306803077670
Option 2 ID : 6306803077673
Option 3 ID : 6306803077672
Option 4 ID : 6306803077671

Q.2 Probably how much million years ago (mya) did jawless fish evolve?

- Ans** ☒ 1. 350 mya
- ☒ 2. 750 mya
- ☒ 3. 950 mya
- ☒ 4. 150 mya

Question ID : 63068090059
Option 1 ID : 630680349011
Option 2 ID : 630680349012
Option 3 ID : 630680349013
Option 4 ID : 630680349010

Q.3 Which type of respiratory organ is found in both prawns and pila?

- Ans** ☒ 1. Book gills
- ☒ 2. Book lungs
- ☒ 3. Tracheae
- ☒ 4. Gills

Question ID : 630680347640
Option 1 ID : 6306801352851
Option 2 ID : 6306801352849
Option 3 ID : 6306801352852
Option 4 ID : 6306801352850

Q.4 Which of the following is an INCORRECT statement regarding growth?

- Ans** ☒ 1. Growth can be defined as a reversible permanent increase in the size of an organ or its parts or even an individual cell.
- ☒ 2. Growth ability in plants is due to the presence of meristems at certain locations in their body.
- ☒ 3. Growth is regarded as one of the most fundamental and conspicuous characteristics of a living being.
- ☒ 4. Growth is accompanied by metabolic processes (both anabolic and catabolic), that occur at the expense of energy.

Question ID : 630680722097
Option 1 ID : 6306802829666
Option 2 ID : 6306802858557
Option 3 ID : 6306802829665
Option 4 ID : 6306802858556

Q.5 Fusion between large, non-motile (static) female gamete and a smaller, motile male gamete is termed oogamous type sexual reproduction, which of the following is an example of such reproduction?

- Ans** ☒ 1. Ulothrix
☒ 2. Volvox
☒ 3. Spirogyra
☒ 4. Eudorina

Question ID : 630680785405
Option 1 ID : 6306803077646
Option 2 ID : 6306803077649
Option 3 ID : 6306803077647
Option 4 ID : 6306803077648

Q.6 Thylakoid pigments like chlorophyll b, xanthophylls and carotenoids are called accessory pigments. Which of the following statements is INCORRECT regarding these accessory pigments?

- Ans** ☒ 1. They synthesise sugar.
☒ 2. They protect chlorophyll a from photo-oxidation.
☒ 3. They enable a wider range of wavelength of incoming light to be utilised for photosynthesis.
☒ 4. They absorb light and transfer the energy to chlorophyll a.

Question ID : 630680709135
Option 1 ID : 6306802778199
Option 2 ID : 6306802778198
Option 3 ID : 6306802778197
Option 4 ID : 6306802778196

Q.7 Which is a RNA $\Rightarrow$ RNA virus?

- Ans** ☒ 1. λ phase
☒ 2. HIV
☒ 3. T₂ phage
☒ 4. TMV

Question ID : 63068091467
Option 1 ID : 630680354603
Option 2 ID : 630680354605
Option 3 ID : 630680354602
Option 4 ID : 630680354604

Q.8 Which of the following is a C₄ plant?

- Ans** ☒ 1. Tobacco
☒ 2. Maize
☒ 3. Potato
☒ 4. Sunflower

Question ID : 630680722088
Option 1 ID : 6306802858562
Option 2 ID : 6306802829632
Option 3 ID : 6306802829631
Option 4 ID : 6306802858563

Q.9 The rate of transpiration is high in -

- Ans**
- ☐ 1. dorsiventral leaves
 - ☐ 2. floating leaves
 - ☐ 3. submerged leaves
 - ☒ 4. isobilateral leaves

Question ID : 63068091473
Option 1 ID : 630680354626
Option 2 ID : 630680354628
Option 3 ID : 630680354629
Option 4 ID : 630680354627

Q.10 A plant in your garden shows brown spots on the leaves surrounded by chlorotic veins. What could be the reason for this?

- Ans**
- ☐ 1. No calcium translocation in the shoot apex
 - ☒ 2. Level of manganese is very high
 - ☐ 3. Plant has excess of iron and magnesium
 - ☐ 4. Plant has excess of chlorophyll

Question ID : 630680347632
Option 1 ID : 6306801352818
Option 2 ID : 6306801352817
Option 3 ID : 6306801352820
Option 4 ID : 6306801352819

Q.11 Name the pollination in which pollen grains from one plant are transferred to the stigma of a totally different plant.

- Ans**
- ☐ 1. Xenobiogamy
 - ☐ 2. Autogamy
 - ☒ 3. Xenogamy
 - ☐ 4. Geitonogamy

Question ID : 630680133901
Option 1 ID : 630680518537
Option 2 ID : 630680518534
Option 3 ID : 630680518536
Option 4 ID : 630680518535

Q.12 Open circulatory pathway is found in which organism?

- Ans**
- ☐ 1. Squid
 - ☐ 2. Earthworm
 - ☒ 3. Prawn
 - ☐ 4. Scoliodon

Question ID : 630680347638
Option 1 ID : 6306801352842
Option 2 ID : 6306801352841
Option 3 ID : 6306801352844
Option 4 ID : 6306801352843

Q.13 Which of the following groups of animals shows radial symmetry and acoelomate body cavity?

- Ans ☐ 1. Chordata
- ☒ 2. Coelenterata
- ☐ 3. Mollusca
- ☐ 4. Hemichordata

Question ID : 630680709159
Option 1 ID : 6306802778306
Option 2 ID : 6306802778307
Option 3 ID : 6306802778304
Option 4 ID : 6306802778305

Q.14 Who among the following naturalists worked in the Malay Archipelago?

- Ans ☐ 1. Ernst Haeckel
- ☐ 2. Charles Darwin
- ☐ 3. Karl Ernst von Baer
- ☒ 4. Alfred Wallace

Question ID : 630680785383
Option 1 ID : 6306803077560
Option 2 ID : 6306803077558
Option 3 ID : 6306803077561
Option 4 ID : 6306803077559

Q.15 Transgenic animals are also used to understand how genes contribute to the development of a disease by serving as models for human diseases, EXCEPT which of the following diseases?

- Ans ☐ 1. Alzheimer's disease
- ☐ 2. Cancer
- ☐ 3. Rheumatoid arthritis
- ☒ 4. Sickle cell anaemia

Question ID : 630680709114
Option 1 ID : 6306802778089
Option 2 ID : 6306802778088
Option 3 ID : 6306802778091
Option 4 ID : 6306802778090

Q.16 Which of the following statements is INCORRECT regarding Hardy-Weinberg Principle?

- Ans ☐ 1. When migration of a section of population to another place and population occurs, gene frequencies change in the original as well as in the new population.
- ☒ 2. Sum total of all the allelic frequencies is 2.
- ☐ 3. The gene pool (total genes and their alleles in a population) remains a constant.
- ☐ 4. Allele frequencies in a population are stable and constant from generation to generation.

Question ID : 630680709126
Option 1 ID : 6306802778152
Option 2 ID : 6306802778155
Option 3 ID : 6306802778154
Option 4 ID : 6306802778153

Q.17 Which of the following did NOT find a place in classification since they are not considered truly 'living'?

- Ans
- ☒ 1. Fungi
 - ☒ 2. Viruses
 - ☒ 3. Protozoans
 - ☒ 4. Algae

Question ID : 630680709155
Option 1 ID : 6306802778289
Option 2 ID : 6306802778290
Option 3 ID : 6306802778291
Option 4 ID : 6306802778288

Q.18 What is the chemical nature of carrier molecules that cause facilitated transport across the plasma membrane?

- Ans
- ☒ 1. Starch
 - ☒ 2. Fatty acid
 - ☒ 3. Protein
 - ☒ 4. Sugar

Question ID : 630680347631
Option 1 ID : 6306801352813
Option 2 ID : 6306801352815
Option 3 ID : 6306801352814
Option 4 ID : 6306801352816

Q.19 Which of the following are NOT included in kingdom Protista?

- Ans
- ☒ 1. Dinoflagellates
 - ☒ 2. Slime moulds
 - ☒ 3. Mycoplasmas
 - ☒ 4. Chrysophytes

Question ID : 630680709156
Option 1 ID : 6306802778295
Option 2 ID : 6306802778293
Option 3 ID : 6306802778292
Option 4 ID : 6306802778294

Q.20 Does the neural system become more composed and developed as per organisms' hierarchy?

- Ans
- ☒ 1. It is not true conceptually.
 - ☒ 2. The relationship between organism hierarchy and neural system is actually inversely proportional.
 - ☒ 3. It is evident that organism hierarchy follows the neural system development, which means simple organisms have simple neural systems, while advanced organisms have developed neural systems.
 - ☒ 4. It is evident that organism hierarchy and neural system do not follow a sequence.

Question ID : 630680285097
Option 1 ID : 6306801108366
Option 2 ID : 6306801108364
Option 3 ID : 6306801108365
Option 4 ID : 6306801108363

Q.1 $(A \cap B) \cup (A - B) = ?$

- Ans
- ☒ 1. $A \cup B$
 - ☒ 2. A
 - ☒ 3. $A \cap B$
 - ☒ 4. B

Question ID : 63068091695
Option 1 ID : 630680355516
Option 2 ID : 630680355515
Option 3 ID : 630680355517
Option 4 ID : 630680355514

Q.2 The expression $2x^3 + 3px^2 - 4x + p$ has remainder 5 when divided by $x + 2$, then the value of p is:

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

Question ID : 63068092942
Option 1 ID : 630680360460
Option 2 ID : 630680360462
Option 3 ID : 630680360461
Option 4 ID : 630680360459

Q.3 Solve the following.

$$(x+2) \frac{dy}{dx} = 3xy$$

- Ans
- ☒ 1. $y = Ce^{3[x - 2\ln(x+2)]}$
 - ☒ 2. $y = Ce^{3[x + 2\ln(x-2)]}$
 - ☒ 3. $y = Ce^{3[x - 2\ln(x-2)]}$
 - ☒ 4. $y = Ce^{3[x - 3\ln(x+2)]}$

Question ID : 630680720076
Option 1 ID : 6306802821762
Option 2 ID : 6306802821761
Option 3 ID : 6306802821760
Option 4 ID : 6306802821763

Q.4 Integrate of $\varphi(t) = \int \left(3t^2 e^{t^3} + \frac{\ln|t|}{t} + t^2 + \sin t \cos t \right) dt$ with respect to t is:

Ans

- ☐ 1. $e^{t^3} + \frac{(\ln|t|)}{2} + \frac{t^3}{3} + \frac{\cos(2t)}{4} + c$
- ☐ 2. $e^{t^2} + \frac{(\ln|t|)^2}{2} + \frac{t^3}{3} - \frac{\cos(2t)}{4} + c$
- ☐ 3. $e^{t^3} + \frac{(\ln|t|)^2}{2} + \frac{t^3}{3} + \frac{\cos(2t)}{4} + c$
- ☒ 4. $e^{t^3} + \frac{(\ln|t|)^2}{2} + \frac{t^3}{3} - \frac{\cos(2t)}{4} + c$

Question ID : 63068091613
Option 1 ID : 630680355189
Option 2 ID : 630680355188
Option 3 ID : 630680355186
Option 4 ID : 630680355187

Q.5 If $\sin y = x \sin(a + y)$, then $\frac{dy}{dx}$ is equal to:

- Ans ☐ 1. $\sin(a + y)$
- ☐ 2. $\sin^2(a + y)$
- ☒ 3. $\frac{\sin^2(a + y)}{\sin a}$
- ☐ 4. $\frac{\sin^2(a + y)}{\sin y}$

Question ID : 63068091254
Option 1 ID : 630680353771
Option 2 ID : 630680353770
Option 3 ID : 630680353772
Option 4 ID : 630680353773

Q.6 The equation $\frac{x^2}{11-K} + \frac{y^2}{-15-K} = 1$ represents a hyperbola if:

- Ans ☒ 1. $-15 < K < 11$
- ☐ 2. $K \neq 15, k \neq 11$
- ☐ 3. $K > 15$
- ☐ 4. $K < 15$ or $K > 11$

Question ID : 630680347858
Option 1 ID : 6306801353721
Option 2 ID : 6306801353724
Option 3 ID : 6306801353723
Option 4 ID : 6306801353722

Q.7 If a, b and c are any real numbers, then with respect to associative property, select the correct statement.

Ans

☐ 1. $a(b + c) = (a \times b) + c$

☐ 2. $(a + b) = (b + c)$

☒ 3. $(a + b) + c = a + (b + c)$

☐ 4. $(a + b) + c = ac + bc$

Question ID : 630680285028
Option 1 ID : 6306801108088
Option 2 ID : 6306801108090
Option 3 ID : 6306801108089
Option 4 ID : 6306801108087

Q.8 The perpendicular distance of the plane $5x - 2y - 3z + 46 = 0$ from the (1, 2, 3) is:

Ans

☐ 1. $\sqrt{18}$ units

☐ 2. $\sqrt{22}$ units

☐ 3. $\sqrt{28}$ units

☒ 4. $\sqrt{38}$ units

Question ID : 630680230038
Option 1 ID : 630680892589
Option 2 ID : 630680892592
Option 3 ID : 630680892590
Option 4 ID : 630680892591

Q.9 If the point Q(a,b) is equidistant from the point A(x - y, x + y) and B(x + y, y - x), then:

Ans

☐ 1. $xa = b$

☐ 2. $a = xb$

☐ 3. $xa = yb$

☒ 4. $ya = xb$

Question ID : 63068091217
Option 1 ID : 630680353623
Option 2 ID : 630680353625
Option 3 ID : 630680353622
Option 4 ID : 630680353624

Q.10 Relation between arithmetic(AM), harmonic(HM) and geometric mean(GM) is:

- Ans
- ☐ 1. $AM \times GM = HM^2$
 - ☐ 2. $AM + HM = GM^2$
 - ☒ 3. $AM \times HM = GM^2$
 - ☐ 4. $GM \times HM = AM^2$

Question ID : 63068090384
Option 1 ID : 630680350312
Option 2 ID : 630680350310
Option 3 ID : 630680350311
Option 4 ID : 630680350313

Q.11 For an unbounded feasible region _____.

- Ans
- ☐ 1. we cannot determine maximum or minimum value
 - ☒ 2. either maximum or minimum value exist
 - ☐ 3. both maximum and minimum value exist
 - ☐ 4. neither maximum nor minimum value exist

Question ID : 630680285029
Option 1 ID : 6306801108094
Option 2 ID : 6306801108093
Option 3 ID : 6306801108091
Option 4 ID : 6306801108092

Q.12 If the function $f(x)$ satisfies mean value theorem, then which of the following is FALSE.

- Ans
- ☐ 1. $(f(b) - f(a)) = f'(c)(b - a); c \in (a, b)$
 - ☐ 2. $f(x)$ defined on $[a, b]$
 - ☒ 3. $f(x)$ is differentiable in $[a, b]$
 - ☐ 4. $f(x)$ is continuous in $[a, b]$

Question ID : 630680285032
Option 1 ID : 6306801108104
Option 2 ID : 6306801108106
Option 3 ID : 6306801108105
Option 4 ID : 6306801108103

Q.13 If $(x-9, y+7) = (7-x, 8-y)$, then $(x, y) = ?$

Ans

✓ 1. $(8, \frac{1}{2})$

✗ 2. $(\frac{1}{2}, -8)$

✗ 3. $(-8, \frac{1}{2})$

✗ 4. $(\frac{1}{2}, 8)$

Question ID : 63068090367
Option 1 ID : 630680350243
Option 2 ID : 630680350245
Option 3 ID : 630680350244
Option 4 ID : 630680350242

Q.14 Express the following using quantifiers.

Every polar bear that is found in cold regions has a white colour.

Where $A(x)$: x has a white colour; $B(x)$: x is a polar bear; $C(x)$: x is found in cold regions.

Ans

✓ 1. $\forall x((B(x) \wedge C(x)) \rightarrow A(x))$

✗ 2. $\forall x((A(x) \wedge C(x)) \rightarrow B(x))$

✗ 3. $\forall x((B(x) \vee C(x)) \rightarrow A(x))$

✗ 4. $\forall x((B(x) \wedge A(x)) \rightarrow C(x))$

Question ID : 630680285185
Option 1 ID : 6306801108718
Option 2 ID : 6306801108715
Option 3 ID : 6306801108717
Option 4 ID : 6306801108716

Q.15 If 'f' is a function such that $f: \mathbb{R} \rightarrow \mathbb{R}$ is a bijective function; $\mathbb{R}$ is the set of real numbers, then which of the following options is NOT true?

Ans

✗ 1. 'f' cannot be a constant function.

✓ 2. The inverse of the function 'f' is not a bijection.

The composition of functions 'f' and 'g' is

✗ 3. also a bijective function; $f: \mathbb{R} \rightarrow \mathbb{R}$ and $g: \mathbb{R} \rightarrow \mathbb{R}$ is a bijective function.

the function 'f' where $f: \mathbb{R} \rightarrow \mathbb{R}$, if

✗ 4. represented as a graph is always a straight line.

Question ID : 630680403614
Option 1 ID : 6306801573946
Option 2 ID : 6306801573948
Option 3 ID : 6306801573947
Option 4 ID : 6306801573949

Q.16 The sum of all the divisors of 38808 is ____.

- Ans ☐ 1. 70
☒ 2. 133380
☐ 3. 72
☐ 4. 460

Question ID : 630680403636
Option 1 ID : 6306801574036
Option 2 ID : 6306801574034
Option 3 ID : 6306801574035
Option 4 ID : 6306801574037

Q.17 The Constraints $-x_1 + x_2 \leq 2$; $-x_1 + 3x_2 \leq 7$; $x_1, x_2 \geq 0$ defines on:

- Ans ☐ 1. both bounded and unbounded feasible space
☒ 2. unbounded feasible space
☐ 3. neither bounded nor unbounded feasible space
☐ 4. bounded feasible space

Question ID : 630680285117
Option 1 ID : 6306801108445
Option 2 ID : 6306801108444
Option 3 ID : 6306801108446
Option 4 ID : 6306801108443

Q.18 If $n(U) = 480, n(A) = 150, n(B) = 225, n(A \cap B) = 175$, then $n(A' \cap B')$ is equal to:

- Ans ☐ 1. 300
☐ 2. 320
☒ 3. 280
☐ 4. 200

Question ID : 630680285150
Option 1 ID : 6306801108577
Option 2 ID : 6306801108578
Option 3 ID : 6306801108576
Option 4 ID : 6306801108575

Q.19 A painter has 300 litres of 10% thinner solution. How many litres of 20% thinner solution must be added to it so that the thinner content in the resulting mixture will be more than 14% but less than 16%?

- Ans ☐ 1. $200 < x < 430$
☐ 2. $150 < x < 450$
☒ 3. $200 < x < 450$
☐ 4. $220 < x < 450$

Question ID : 63068090385
Option 1 ID : 630680350317
Option 2 ID : 630680350316
Option 3 ID : 630680350315
Option 4 ID : 630680350314

Q.20 Which of the following is NOT a feasible solution property in linear programming (LP) problem?

- Ans ☒ 1. LP is infeasible if there exists no solution that satisfies some of the constraints.
- ☐ 2. If a feasible solution exists, consequently a basic feasible solution also exists
- ☐ 3. In the presence of an optimum solution, there exists a basic feasible solution that is also an optimum solution.
- ☐ 4. An infeasible solution violates at least one of the constraints of the LP problem

Question ID : 630680403616
Option 1 ID : 6306801573955
Option 2 ID : 6306801573954
Option 3 ID : 6306801573956
Option 4 ID : 6306801573957

Section : Discipline5

Q.1 Which of the following wavelengths of light will have the minimum Rayleigh scattering rate?

- Ans ☐ 1. Green
- ☐ 2. Orange
- ☒ 3. Red
- ☐ 4. Blue

Question ID : 63068090084
Option 1 ID : 630680349112
Option 2 ID : 630680349111
Option 3 ID : 630680349110
Option 4 ID : 630680349113

Q.2 Find the variance of the following data.

6, 8, 10, 12, 14

- Ans ☐ 1. 10
- ☐ 2. 20
- ☒ 3. 8
- ☐ 4. 12

Question ID : 630680926076
Option 1 ID : 6306803629279
Option 2 ID : 6306803629282
Option 3 ID : 6306803629280
Option 4 ID : 6306803629281

Q.3 The type of attachment in which the filament runs up the entire length of the anther is known as:

- Ans ☒ 1. Adnate
- ☐ 2. Basifixed
- ☐ 3. Versatile
- ☐ 4. Staminode

Question ID : 63068046285
Option 1 ID : 630680177927
Option 2 ID : 630680177929
Option 3 ID : 630680177926
Option 4 ID : 630680177928

Q.4 What is the major cause of atmospheric pollution?

Ans ☒ 1. Human activities

☐ 2. Sea waves

☐ 3. Heavy rains

☐ 4. Trees

Question ID : 63068083191
Option 1 ID : 630680322624
Option 2 ID : 630680322627
Option 3 ID : 630680322625
Option 4 ID : 630680322626

Q.5 Succession of plants, which progress from hydric to mesic conditions is called:

Ans ☐ 1. hydrotrophic succession

☐ 2. xerarch succession

☐ 3. Mesotrophic succession

☒ 4. hydrarch succession

Question ID : 63068090061
Option 1 ID : 630680349018
Option 2 ID : 630680349021
Option 3 ID : 630680349019
Option 4 ID : 630680349020

Q.6 if the root of the quadratic equation $x^2 - kx + 25 = 0$ are real and repeated positive, then $k = ?$

Ans ☐ 1. -10

☒ 2. 10

☐ 3. 0

☐ 4. 2

Question ID : 63068090382
Option 1 ID : 630680350305
Option 2 ID : 630680350303
Option 3 ID : 630680350304
Option 4 ID : 630680350302

Q.7 Temperature coefficient of resistance is found to be positive for material A and negative for material B. This implies:

Ans ☒ 1. A is conductor and B is semiconductor

☐ 2. Both A and B are semiconductors

☐ 3. Both A and B are conductors

☐ 4. A is semiconductor and B is conductor

Question ID : 63068090076
Option 1 ID : 630680349078
Option 2 ID : 630680349081
Option 3 ID : 630680349080
Option 4 ID : 630680349079

Q.8 The bonds that develop between two oppositely charged groups, which are attracted by electrostatic interaction are called:

- Ans
- ☐ 1. hydrophobic bonds
 - ☐ 2. hydrogen bonds
 - ☒ 3. ionic bonds
 - ☐ 4. disulphide bonds

Question ID : 63068080176
Option 1 ID : 630680310732
Option 2 ID : 630680310729
Option 3 ID : 630680310731
Option 4 ID : 630680310730

Q.9 $\text{Ni(s)} + 4\text{CO(g)} \rightleftharpoons \text{Ni(CO)}_4\text{(g)}$
The equilibrium constant for the given reaction is given as:

- Ans
- ☐ 1. p_{Ni}
 - ☒ 2. $p_{\text{Ni(CO)}_4} / p^4_{\text{CO}}$
 - ☐ 3. $p_{\text{Ni}} \cdot p^4_{\text{CO}}$
 - ☐ 4. $p_{\text{Ni(CO)}_4}$

Question ID : 63068086632
Option 1 ID : 630680335936
Option 2 ID : 630680335939
Option 3 ID : 630680335937
Option 4 ID : 630680335938

Q.10 Which of the following parts of a flower develops into a seed?

- Ans
- ☐ 1. Sepal
 - ☐ 2. Ovary
 - ☒ 3. Ovule
 - ☐ 4. Petal

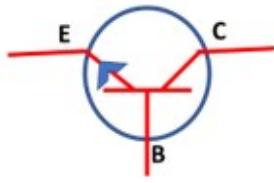
Question ID : 630680903466
Option 1 ID : 6306803539498
Option 2 ID : 6306803539497
Option 3 ID : 6306803539496
Option 4 ID : 6306803539499

Q.11 What is the shortest distance from the point (2, -1, -3) to the plane $2x - 3y + 6z - 10 = 0$?

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

Question ID : 630680923897
Option 1 ID : 6306803620703
Option 2 ID : 6306803620704
Option 3 ID : 6306803620706
Option 4 ID : 6306803620705

Q.12 The given symbol represents:



- Ans
- ☐ 1. PNP transistor
 - ☐ 2. forward biased PN junction diode
 - ☒ 3. NPN transistor
 - ☐ 4. reverse biased NP junction diode

Question ID : 63068090164
Option 1 ID : 630680349432
Option 2 ID : 630680349433
Option 3 ID : 630680349431
Option 4 ID : 630680349430

Q.13 The equation of the line through $(-3, 7, -5)$ and perpendicular to the plane $3x + 6y - 7z + 44 = 0$ is:

- Ans
- ☐ 1. $\frac{x-3}{3} = \frac{y-7}{6} = \frac{z-5}{7}$
 - ☐ 2. $\frac{x-3}{3} = \frac{y+7}{6} = \frac{z-5}{-7}$
 - ☒ 3. $\frac{x+3}{3} = \frac{y-7}{6} = \frac{z+5}{-7}$
 - ☐ 4. $\frac{x+3}{3} = \frac{y-6}{7} = \frac{z+7}{5}$

Question ID : 630680923888
Option 1 ID : 6306803620670
Option 2 ID : 6306803620668
Option 3 ID : 6306803620667
Option 4 ID : 6306803620669

Q.14 In what kind of water does soap NOT show its cleansing property?

- Ans
- ☒ 1. Hard water
 - ☐ 2. Soft water
 - ☐ 3. Distilled water
 - ☐ 4. Mineral water

Question ID : 63068083146
Option 1 ID : 630680322446
Option 2 ID : 630680322444
Option 3 ID : 630680322445
Option 4 ID : 630680322447

Q.15 The purpose of using a polariser is to:

- Ans** ☒ 1. increase the intensity of light
☒ 2. reduce the intensity of light
☒ 3. produce polarised light
☒ 4. produce unpolarised light

Question ID : 63068090155
Option 1 ID : 630680349395
Option 2 ID : 630680349397
Option 3 ID : 630680349394
Option 4 ID : 630680349396

Q.16 Which of the following water pollutants is biodegradable?

- Ans** ☒ 1. Polythene
☒ 2. DDT
☒ 3. Radioactive waste
☒ 4. Domestic sewage

Question ID : 63068083198
Option 1 ID : 630680322655
Option 2 ID : 630680322654
Option 3 ID : 630680322653
Option 4 ID : 630680322652

Q.17 Elements of power set $P(A)$ is/are:

- Ans** ☒ 1. an empty set
☒ 2. only two sets, empty set and the set A
☒ 3. all the proper subsets of A
☒ 4. empty set, proper subsets of A and set A

Question ID : 63068090364
Option 1 ID : 630680350232
Option 2 ID : 630680350230
Option 3 ID : 630680350231
Option 4 ID : 630680350233

Q.18 The AND gate has an output of 1 only when both the inputs A and B are:

- Ans** ☒ 1. A=1, B=0
☒ 2. A=0, B=1
☒ 3. A=0, B=0
☒ 4. A=1, B=1

Question ID : 63068090171
Option 1 ID : 630680349461
Option 2 ID : 630680349460
Option 3 ID : 630680349459
Option 4 ID : 630680349458

Q.19 Which force holds oppositely charged ions together to form an ionic bond?

Ans ☒ 1. Electrostatic force

☐ 2. Applied force

☐ 3. Gravitational force

☐ 4. Magnetic force

Question ID : 63068086619
Option 1 ID : 630680335885
Option 2 ID : 630680335887
Option 3 ID : 630680335886
Option 4 ID : 630680335884

Q.20 The muscular tissue originates from:

Ans ☐ 1. basal lamina

☐ 2. endoderm

☐ 3. ectoderm

☒ 4. mesoderm

Question ID : 63068080175
Option 1 ID : 630680310728
Option 2 ID : 630680310727
Option 3 ID : 630680310725
Option 4 ID : 630680310726

