

STAFF SELECTION COMMISSION
COMBINED HIGHER SECONDARY LEVEL (TIER-I)
SOLVED PAPER

(4th March 2017: Shift-1)

Time Allotted- 1 hour

Max marks- 200

Important Instructions:-

- ⇒ This paper contains 100 questions which are divided into 4 sections and each section contains 25 questions.
 - ✓ English Language (Basic Knowledge)
 - ✓ General Intelligence
 - ✓ Quantitative Aptitude (Basic Arithmetic Skill)
 - ✓ General Awareness
- ⇒ There will be 2 marks for each correct answer and also there will be negative marking of 0.50 marks for each wrong answer.
- ⇒ Each question is compulsory to attempt and there will be no negative marking for unattempted questions.

English Language

1. In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option.
If a sentence is free from error, select 'No Error'.
Due to the (1)/ snow the (2)/ marks was unrecognisable. (3)/No error (4)
1. 1 2. 2 3. 3 4. 4
2. In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.
Acceptance is not about allowing everything to occur or to go on, (1)/ it is neither related to passivity and weakness, (2)/ nor is it about confirmation or mediocrity. (3)/ No error (4)
1. 1 2. 2 3. 3 4. 4
3. In the following question, the sentence given with blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.
She jumped _____ the bar table.
1. upon 2. in 3. up 4. into
4. In the following question, the sentence given with blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.
Sun is a _____ perfect sphere of hot plasma, with internal convective motion that generates a magnetic field.
1. nearly 2. about 3. near 4. more
5. In the following question, out of the given four alternatives, select the one which best expresses the meaning of the given word.
Hybrid
1. Homogeneous 2. Composite
3. Pure 4. Love
6. In the following question, out of the given four alternatives, select the one which best expresses the meaning of the given word.
Discreet
1. Described 2. Careful 3. Rash 4. Mundane
7. In the following question, out of the given four alternatives, select the one which is opposite in meaning of the given word.
Heed
1. Care 2. Attention 3. Caution 4. Neglect
8. In the following question, out of the given four alternatives, select the one which is opposite in meaning of the given word.
Articulate
1. Unclear 2. Enunciate 3. Eloquent 4. Coherent

9. Rearrange the parts of the sentence in correct order.
All the sound reasons
P : ever given for conserving
Q : to the conservation fo wildlife
R : other natural resources apply
1. PRQ 2. PQR 3. RQP 4. QRP
10. A sentence has been given in Active/Passive Voice. Out of the four given alternatives, select the one which best expresses the same sentence in Passive/Active Voice.
She will finish the thesis in a fortnight.
1. The thesis would be finished in a fortnight by her.
2. The thesis will finished by her in a fortnight.
3. The thesis will be finished by her in a fortnight.
4. A fortnight is required to finish the thesis.
11. A sentence has been given in Direct/Indirect Speech. Out of the four given alternatives, select the one which best expresses the same sentence in Indirect/Direct Speech.
"I know her well" said Manisha.
1. Manisha said that she knew her well.
2. Manisha said if she knows her well.
3. Manisha said that she knows her.
4. Manisha says that she knew her well.
12. In the following question, a word has been written in four different ways out of which only one is correctly spelt. Select the correctly spelt word.
1. Commiety 2. Committee
3. Comittee 4. Committee

Comprehension:

For Questions 13 to 17: In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.
Now, what exactly does big business want? Though they cite some _____ worded performance indicators to compile the index, the true intention appears to be something _____. They want land at throwaway prices even _____ it is fertile agriculture land; they want licenses to be issued immediately even if the proposed activities are likely to result in environmental _____; they want labour laws to be favourable to them so it becomes easy to hire _____ fire and exploit workers; and they want the government to respond favourably to their 'ballout' demands from time to time so they can transfer their risk on to eaxpayers, notwithstanding the fact that they enjoyed their profits during their heyday.

13. they cite some _____ worded performance
1. cleverly 2. cleverer
3. cleverest 4. cleverness

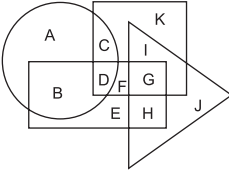
14. something _____. They want land at
1. other 2. extra 3. added 4. else
15. prices even _____ it is fertile agriculture land;
1. if 2. then 3. but 4. also
16. environmental _____; they want labour laws.
1. degrade 2. degrading
3. degraded 4. degradation
17. easy to hire _____ fire and exploit
1. and 2. if 3. thus 4. so
18. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
After one's own heart
1. Sharing or having one's tastes or views.
2. Infatuation with a person which is not reciprocated.
3. Memorise some thing by heart.
4. Don't have the courage to do something bad for a good person.
19. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
Pull the wool over someone's eyes
1. To protect someone.
2. To keep oneself warm.
3. Deceive someone by telling lies.
4. To pretend to be blind to the other person's bad behaviour.
20. In the following question, out of the four alternatives, select the alternative which is the best substitute of the words/sentence.
A warning of impending danger
1. Naive 2. Monition 3. Obtuse 4. Draft
21. In the following question, out of the four alternatives, select the alternative which is the best substitute of the words/sentence.
Concerned with beauty or the appreciation of beauty
1. Foul 2. Aesthetic 3. Hideous 4. Gross
22. In the following question, out of the four alternatives, select the alternative which will improve the bracketed part of the sentence.
In case no improvement is needed, select "no improvement".
We sat on the floor to eat dinner and he (appreciate) the fresh food my mother served.
1. had appreciated 2. appreciated
3. will appreciate 4. no improvement
23. In the following question, out of the four alternatives, select the alternative which will improve the bracketed part of the sentence.
In case no improvement is needed, select "no improvement".
We sat there (enjoy) the view.
1. enjoyed 2. enjoying
3. enjoys 4. no improvement
24. The question below consists of a set of labelled sentences. Out of the four options given, select the most logical order of the sentences to form a coherent paragraph.
Life is never meant to
A-country like India
B-be easy, especially means if you
C-live in a developing
1. BAC 2. ACB 3. BCA 4. ABC
25. In the following question, four words are given out of which one word is correctly spelt. Select the correctly spelt word.
1. stridancy 2. stridensy 3. stridansy 4. stridency
26. In the following question, select the related word pair from the given alternatives.
Train : Track :: ? : ?
1. Car : Four wheeler 2. Aeroplane : Fly
3. Truck : Road 4. Car : Speed
27. In the following question, select the related number pair from the given alternatives.
53 : 35 :: ? : ?
1. 37 : 73 2. 16 : 62 3. 42 : 22 4. 54 : 43
28. In the following question, select the related letter/letters from the given alternatives.
PAL : RDP :: MRF : ?
1. FAJ 2. OUJ 3. KUC 4. RPT
29. In the following question, select the odd word pair from the given alternatives.
1. Reptile – Lizard 2. Mammal – Deer
3. Mammal – Elephant 4. Rodent – Rabbit
30. In the following question, four number pairs are given. The number on left side of (–) is related to the number of the right side of (–) with some Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.
1. 20 – 30 2. 45 – 55 3. 35 – 45 4. 25 – 30
31. In the following question, select the odd letter/letters from the given alternatives.
1. RQP 2. ZYX 3. XWV 4. AZX
32. From the given alternatives, according to dictionary, which word will come at THIRD position?
1. Chimney 2. Cherry 3. Childish 4. Chess
5. Chest
1. Chest 2. Chimney 3. Childish 4. Chess
33. In the following question, select the missing number from the given series.
19, 9, 28, 37, 65, ?
1. 99 2. 102 3. 97 4. 113
34. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
I, L, O, R, ?
1. S 2. U 3. T 4. V
35. Present ages of Ankur and his sister are in the ratio of 4 : 3. After 6 years ratio of ages of Ankur's sister and his brother will be 3 : 2. If the present age of his brother is 32 years, then after 3 years what will be the age (in years) of Ankur?
1. 71 2. 70 3. 68 4. 65
36. From the given alternatives, select the word which CANNOT be formed using the letters of the given word.
STATEMENT
1. Men 2. Start 3. Same 4. State
37. In a certain code language, "FRAME" is written as "IUDPH". How is "ROYAL" written in that code language?
1. XVTGM 2. XIDPH 3. MRDXO 4. URBDO
38. In a certain code language, '–' represents 'x', '÷' represents '+', '+' represents '÷' and 'x' represents '–'. Find out the answer to the following question.
 $15 - 6 + 10 \times 3 \div 2 = ?$
1. 24 2. 2 3. 9 4. 8
39. The following equation is incorrect. Which two signs should be interchanged to correct the equation?
 $12 + 10 - 28 \div 7 \times 4 = 48$
1. ÷ and – 2. – and + 3. + and ÷ 4. × and –
40. If $-4\$1 = 4$, $7\$-7 = 49$ and $3\$1 = -3$, then find the value of $-8\$-5 = ?$
1. -1 2. -40 3. 92 4. -69
41. Which of the following terms follows the trend of the given list?
ABABAbab, ABABabaB, ABAbabAB, ABabaBAB, AbabABAB,

1. aBABABab 2. abaBABAB
3. ABABAbab 4. ABABabaB
42. A hiker walks 2 km South, then he turns West and walks for 4 km, then he turns North and walks for 5 km, then he turns to his right and walks for 4 km.

General Intelligence

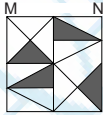
Where is he now with respect to his starting position?





1. 7 km North
 2. 3 km North
 3. 3 km South
 4. 7 km South
43. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.
Statement I: No spaghetti are noodles
Statement II: Some food are spaghetti
Conclusion I: All noodles are food
Conclusion II: All food are noodles
1. Only conclusion I follows
 2. Only conclusion II follows
 3. Both conclusions I and II follow
 4. Neither conclusion I nor conclusion II follows

44. In the following figure, rectangle represents Plumbers, circle represents Athletes, triangle represents Gamers and square represents Cricketers. Which set of letters represents those who are Athletes as well as Crickets?
- 
1. CD
 2. FG
 3. AB
 4. EH

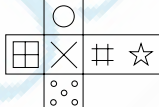




45. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
COT, DQU, ESV, FUW, ?
1. GWY
 2. GWX
 3. GVX
 4. GVY
46. In the following question, select the missing number from the given series.
49, 46, 43, 40, ?, 34
1. 38
 2. 36
 3. 37
 4. 39

47. In the following question, four groups of three numbers are given. In each group the second and third number are related to the first number by a Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.
1. (1, 11, 1111)
 2. (2, 22, 4444)
 3. (4, 44, 4444)
 4. (8, 88, 8888)

48. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?
- 

1. 
2. 
3. 
4. 

49. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?

- 
1. 
 2. 
 3. 
 4. 

50. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can

be represented first by its row and next by its column, for example 'L' can be represented by 21, 33 etc. and 'Z' can be represented by 56, 98 etc. Similarly, you have to identify the set for the word 'TOMB'.

Matrix I					
	0	1	2	3	4
0	l	k	L	L	k
1	G	F	E	F	F
2	H	L	B	A	F
3	I	A	I	L	I
4	E	D	F	M	A

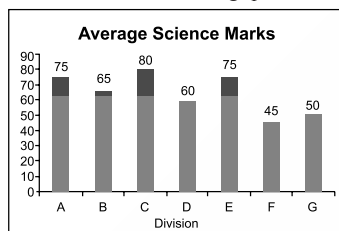
Matrix II					
	5	6	7	8	9
5	V	Z	U	R	O
6	R	W	N	S	O
7	Q	U	T	U	V
8	Q	T	N	P	X
9	Q	Y	V	Z	R

1. 77,69,43,22
2. 11,88,34,55
3. 42,66,12,58
4. 30,65,24,65

Quantitative Aptitude

51. Find the value of $\left\{ (49)^{\frac{3}{2}} - (49)^{-\frac{3}{2}} \right\}$
1. $\frac{117549}{343}$
 2. $\frac{117550}{343}$
 3. $\frac{117659}{343}$
 4. $\frac{117650}{343}$
52. Calculate the total numbers of prime factors in the expression $(4)^{11} \times (5)^5 \times (3)^2 \times (13)^2$.
1. 30
 2. 33
 3. 31
 4. 32
53. Which of the following is the CORRECT rationalize form of $\frac{15}{\sqrt{5} + 2}$?
1. $5\sqrt{5} - 6$
 2. $\sqrt{5} - 30$
 3. $15\sqrt{5} - 30$
 4. $45\sqrt{5} - 30$
54. Determine the value of 'x', if $x = \frac{(943 - 864)^2 - (943 - 864)^2}{(1886 \times 1728)}$
1. 1
 2. 79
 3. 4
 4. 1789
55. Which of the following options is/are CORRECT about the similarity of the two triangles?
1. The corresponding sides are proportional to each other.
 2. The corresponding angles are equal.
 3. The corresponding sides may or may not be equal to each other.
 4. All option are correct.
56. If the height of the equilateral triangle is $2\sqrt{3}$ cm, then determine the area (in cm^2) of the equilateral triangle.
1. 6
 2. $4\sqrt{3}$
 3. $2\sqrt{3}$
 4. 12
57. Length and breadth of a rectangle are increased by 10% and 20% respectively. What will be the percentage increase in the area of rectangle?
1. 30%
 2. 28%
 3. 32%
 4. 33%
58. The ratio of three numbers is 3 : 6 : 8. If their product is 9216, then what is the sum of the three numbers?
1. 96
 2. 144
 3. 72
 4. 68
59. Rohit started a business with Rs 75000 and after some months Simran joined him with Rs 60000. If the profit at the end of the year is divided in the ratio 3 : 1, then after how many months did Simran join Rohit?
1. 7
 2. 8
 3. 6
 4. 4
60. A boy bought 50 chocolates for Rs 1000. If the average price of 30 chocolates is Rs 25, then what is the average price (in Rs) of the remaining chocolates?
1. 10
 2. 15
 3. 12.5
 4. 17.5

61. The simple interest on a sum for 8 years is Rs 47500. The rate of interest for the first 5 years is 10% per annum and for the next 3 years is 15% per annum. What is the value (in Rs) of sum?
 1. 50000 2. 45000 3. 60000 4. 62500
62. Selling price of a chair is Rs 1386. If loss percentage is 23%, then what is the cost price (in Rs) of chair?
 1. 1600 2. 1900 3. 1800 4. 1067
63. Marked price of a computer is Rs 48000 and discount is 13%. What is additional discount (in percentage) should be offered to the customer to bring the price of computer to Rs 39672?
 1. 10 2. 8 3. 5 4. 9
64. Which of the following statement(s) is/are TRUE?
 I. $\sqrt{144} \times \sqrt{36} < \sqrt[3]{125} \times \sqrt{121}$ II. $\sqrt{324} \times \sqrt{49} > \sqrt[3]{216} \times \sqrt{9}$
 1. Only I 2. Only II
 3. Neither I nor II 4. Both I and II
65. Pipe X can fill a tank in 20 hours and Pipe Y can fill the tank in 35 hours. Both the pipes are opened on alternate hours. Pipe Y is opened first, then in how much time (in hours) the tank will be full?
 1. 269/11 2. 280/11 3. 179/7 4. 172/7
66. A train is moving at the speed of 54 km/hr. How many seconds it will take to cover a distance of 450 metres?
 1. 60 2. 45 3. 30 4. 36
- The bar graph shows average marks scored in a 100 marks Science exam by students of 7 divisions of Standard X. Study the diagram and answer the following questions 67 - 70.



67. Which division scored the second lowest marks?
 1. F 2. G 3. B 4. D
68. What is the ratio of average marks scored by Division D to Division A?
 1. 4 : 5 2. 4 : 7 3. 5 : 4 4. 7 : 4
69. Marks of division F were lesser than that of Division C by _____
 1. 35% 2. 45% 3. 47.25% 4. 43.75%
70. If all students of Division A lost 5 marks each for indiscipline then their new average marks would decrease by how much?
 1. 5% 2. 6.67% 3. 11.11% 4. 10%
71. If the length of one side and the diagonal of a rectangle are 7 cm and 25 cm respectively, then find its perimeter (in cm).
 1. 124 2. 62 3. 36 4. 72
72. If a regular polygon has 5 sides then the measure of its interior angle is greater than the measure of its exterior angle by how many degrees?
 1. 60° 2. 90° 3. 36° 4. 100°
73. Find the volume (in cm³) of a cube of side 3.5 cm.
 1. 69.845 2. 19.765 3. 42.875 4. 11.165
74. ΔXYZ is right angled at Y. If $m\angle X = 60^\circ$, then find the value of $(\sec Z + 2/\sqrt{3})$.
 1. $4\sqrt{3}$ 2. $(\sqrt{2} + 2)2\sqrt{2}$
 3. $7/2\sqrt{3}$ 4. $4/2\sqrt{3}$
75. In ΔUVW measure of angle V is 90°. If $\tan U = 12/5$, and $UV = 10$ cm, then what is the length (in cm) of side VW?
 1. 26 2. 25 3. 24 4. 5

General Awareness

76. The competitive position of a company can be improved by _____.
 1. increasing the selling price
 2. reducing the margin of profit
 3. ignoring competitors
 4. understanding and fulfilling customers needs
77. Deficit financing means the government borrows money from the _____.
 1. International Monetary Fund
 2. Ministry of Finance
 3. Reserve Bank of India
 4. World Trade Organization
78. Which of the following information is found in Ashoka's inscriptions?
 1. Life story 2. Internal policy
 3. Foreign policy 4. All option are correct.
79. Bahadur Shah, the ruler of Gujarat was killed in a conflict with which of the following?
 1. Dutch 2. English 3. Portuguese 4. French
80. Which part of the Earth has the abundance of nickel and iron?
 1. SIAL 2. SIMA
 3. NIFE 4. No option is correct.
81. Konkan coast is stretched from where to where?
 1. Goa to Kochi 2. Goa to Diu
 3. Daman to Goa 4. Goa to Mumbai
82. Which of the following pair is NOT matched correctly?
 1. Bharatanatyam - Tamilnadu
 2. Kathakali - Karnataka
 3. Odissi - Odisha
 4. Kuchipudi-Andhra Pradesh
83. How much water has been allowed to India for irrigation, power generation and transport purposes from Indus river?
 1. 10% 2. 20% 3. 15% 4. 25%
84. Who among the following was NOT one of the recipients of Dronacharya Award for the year 2017?
 1. R. Gandhi 2. Prashant Singh
 3. Heera Nand Kataria 4. Sanjay Chakarvorthy
85. China has the longest border with which of the following country?
 1. Russia 2. India 3. Myanmar 4. Mongolia
86. Which of the following statement(s) is/are CORRECT?
 I. Bakelite is a good conductor of heat.
 II. Bakelite is a poor conductor of electricity.
 III. Bakelite can be softened by heating.
 1. Only I and II 2. Only I and III
 3. Only II 4. All I, II and III
87. Which of the following has minimum ignition temperature?
 1. Petrol 2. Plastic 3. Wood 4. Paper
88. Which Article of Indian Constitution empowers Indian Parliament to amend the constitution?
 1. Article 368 2. Article 252
 3. Article 254 4. Article 256
89. Which part of Indian constitution deals with Union Territories?
 1. Part VI 2. Part VII 3. Part VIII 4. Part IX
90. The rhythmic contraction of the lining of muscles of canal to push the food along the gut is called _____.
 1. peristalsis 2. facilitation
 3. guttation 4. No option is correct.
91. Which of the following represents the pair of sex chromosomes in men?
 1. XY 2. XX
 3. YY 4. No option is correct.

92. How much amount has been reserved for the 'National Biopharma Mission' named 'i3' by the Government of India?
 1. USD 250 million 2. USD 350 million
 3. USD 500 million 4. USD 150 million
93. Scientists of which country have developed working human skeletal muscle from stem cells in the laboratory for the first time?
 1. China 2. Japan
 3. India 4. United States of America
94. In July 2017, how much revised cost was approved for the cost Socio Economic and Caste Census 2011 (SECC 2011)?
 1. ₹ 4893 crore 2. ₹ 7983 crore
 3. ₹ 9893 crore 4. ₹ 10,000 crore
95. From May 2017, the Real Estate Act has come into effect. Under the Act, the Regulatory Authorities are required to dispose of complaints in how many days?
 1. 60 2. 30 3. 45 4. 90
96. A body of mass 4 kg accelerates from 15 m/s to 25 m/s in 5 seconds due to the application of a force on it. Calculate the magnitude of this force (in N).
 1. 32 2. 8 3. 16 4. 64
97. During _____ motion of an object along a straight line, the change in velocity of the object for any time interval is zero.
 1. linear 2. translational
 3. equilibrium 4. uniform
98. The tropical rainforests _____.
 1. are dry and hot
 2. are in the coastal regions only
 3. are mostly covered in snow
 4. get plenty of rainfall
99. Which of the statements given below are correct?
 A. Valentino Rossi won the Motorcycle race 2017 Dutch TT MotoGP.
 B. United Kingdom hosted the Table Tennis 2017 ITTF Women's World Cup.
 C. In 2017, Glenn Maxwell captained the IPL team Kings XI Punjab.
 1. A and B 2. B and C 3. A and C 4. A, B and C
100. In Microsoft Word, under character formatting _____ is used to underline some particular text.
 1. Font style 2. Underline 3. Effects 4. Size

Answer Key

1.	(3)	2.	(3)	3.	(1)	4.	(1)	5.	(2)	6.	(2)	7.	(4)	8.	(1)	9.	(1)	10.	(3)
11.	(1)	12.	(2)	13.	(1)	14.	(4)	15.	(1)	16.	(4)	17.	(1)	18.	(1)	19.	(3)	20.	(2)
21.	(2)	22.	(2)	23.	(2)	24.	(3)	25.	(4)	26.	(3)	27.	(1)	28.	(2)	29.	(4)	30.	(4)
31.	(4)	32.	(1)	33.	(2)	34.	(2)	35.	(1)	36.	(2)	37.	(4)	38.	(4)	39.	(4)	40.	(2)
41.	(2)	42.	(2)	43.	(4)	44.	(1)	45.	(2)	46.	(3)	47.	(2)	48.	(1)	49.	(3)	50.	(1)
51.	(4)	52.	(2)	53.	(3)	54.	(1)	55.	(4)	56.	(2)	57.	(3)	58.	(4)	59.	(1)	60.	(3)
61.	(1)	62.	(3)	63.	(3)	64.	(2)	65.	(3)	66.	(3)	67.	(2)	68.	(1)	69.	(4)	70.	(2)
71.	(2)	72.	(3)	73.	(3)	74.	(1)	75.	(3)	76.	(4)	77.	(3)	78.	(4)	79.	(3)	80.	(3)
81.	(3)	82.	(2)	83.	(2)	84.	(2)	85.	(4)	86.	(3)	87.	(1)	88.	(1)	89.	(3)	90.	(1)
91.	(1)	92.	(1)	93.	(4)	94.	(1)	95.	(1)	96.	(2)	97.	(4)	98.	(4)	99.	(3)	100.	(2)

Answers with Explanations

1. Option (3) is correct.

Here in the given sentence, the subject is 'the marks' which is in plural form. Since the subject is in plural form 'the verb' should also be a plural verb. It must be 'were' instead of 'was'.

2. Option (3) is correct.

The given sentence is framed using the correlative conjunction 'neither...nor'. When we use correlative conjunction, we must follow the rule of parallelism. In the second part of the sentence, we find 'it is neither related to passivity'. The part 3 of the sentence must be 'nor it is about conformation'.

3. Option (1) is correct.

The table is the base. One cannot jump up the table, jump in the table or jump into the table. 'Upon' is a preposition that shows that one object is placed on another, so the answer is 'upon the table'. She can only jump on it or jump upon it.

4. Option (1) is correct.

The given sentence describes the sun. The word 'nearly' is an adverb that shows a sort of closeness while describing the sun and the word 'perfect' is an adjective. The adverb 'nearly' qualifies the adjective 'perfect'. The word 'near' 'about' and 'more' will not be the right choice as they do not fit in there. The adverb 'nearly' is the right answer that will fit in there.

5. Option (2) is correct.

'Hybrid' is a combination of different elements. 'Composite' is made up of different elements. Homogenous means same kind. Pure means unpolluted or untainted or clean. Love is a feeling or an emotion. So, homogenous, pure and love will not be the synonym of hybrid. 'Composite' is the right option.

6. Option (2) is correct.

The first option described means explaining something or elaborating on something. The third one 'rash' means being inconsiderate and unthinking and the fourth option 'mundane' means old or superannuated. These three options will not be the meaning of discreet as discreet is being cautious, considerate, or careful.

7. Option (4) is correct.

The synonym of 'heed' is taking note of something or paying attention to something.

Care means paying attention, caution means being careful about something and attention is caring about something. 'Neglect' is disregarding or avoiding something, not caring something. So the right option is neglect.

8. Option (1) is correct.

Articulate means speaking or uttering something very clearly. Enunciate means speak or articulate, eloquent means expressive or fluent and coherent means clear. So unclear is the antonym of articulate.

9. Option (1) is correct.

'All the sound reasons' is the main part of the sentence in which the subject or noun is 'reasons'. The noun reason is being modified by the adjective 'sound'. A subject requires a verb. We find the verb in option 'P' ever given for conserving and hence 'p' must be the next part following the main part given above and the last word in 'p' is 'conserving' after which an object is required. The object is found in option 'R' other natural resources and finally, the last part will be Q.

10. Option (3) is correct.

When we convert a sentence into passive, the tense of the sentence will remain the same. Here the given sentence is in the future tense.

The pattern is: Subject+ Auxillary verb+ Main verb in participle form+by+ object.

The object of the active sentence will become the subject in the passive.

The auxillary verb in the given sentence is 'will'. When will is the auxillary verb 'be' is supposed to be the be verb which is mandatory in the sentence. The subject she becomes her in the passive structure as it becomes the object.

11. Option (1) is correct.

In the given sentence the reporting verb is 'said' which is in past tense. The verb to be reported is 'know' which is in present tense. When we transform a sentence into reported speech, we need to focus on the tense of the reporting verb and based on the reporting verb's tense form, the verb to be reported too should be converted into the same tense form. Since the given example is a statement, the conjunction 'that' should be used in between the reporting element and the element to be reported.

So, it must be 'Manisha said that she knew her well.'

12. Option (2) is correct.

The correct spelling is COMMITTEE which means a group of people selected to decide or to complete a task.

13. Option (1) is correct.

In the given sentence 'they cite some _____ worded performance' the word 'worded' is an adjective that requires only an adverb to qualify or modify it. In the given option the word cleverly is an adverb. The right structure is 'adverb+adjective+noun'.

14. Option (4) is correct.

When we come across words like something, anything, everything, someone, we will be using the adverb else which means, additional, more or in addition. The other words given in the options will make the sentence meaningless.

15. Option (1) is correct.

The adverb "even" can be combined with the words "though," "when" and "if." It emphasizes that a result is unexpected. "Even if" is used when something is rarely done or just imagined. So here, then, but and also will not make sense in this sentence as it is an imaginary condition that the land is fertile.

16. Option (4) is correct.

In the given example, the word 'environmental' is an adjective and after an adjective, we must use a noun. Among the words given in the option, the word 'degradation' alone is a noun and hence the right option is degradation. The word degrade is a verb that cannot be used after an adjective and degraded and degrading are the past and participle forms of the verb 'degrade'.

17. Option (1) is correct.

The sentence is about making labour laws favourable. If the labour law is favourable, it will be easy to hire people and fire or exploit people. The blank has to be filled with the conjunction and as the author wants to connect the process of hiring and firing people using the labour law. The other three options will be making the part of the sentence meaningless.

18. Option (1) is correct.

The meaning of the idiom is 'having the same opinions or interests as you' and hence the right option will be 'Sharing or having one's tastes or views'.

19. Option (3) is correct.

The meaning of the given idiom is to deceive or cheat someone in order to prevent them from discovering something. It is not

protecting someone or keeping oneself warm or pretending to be blind. The right option is deceiving someone by telling lies.

20. Option (2) is correct.

The meaning of the word monition is ' something really dangerous is about to happen. Naïve means lack of experience, obtuse means something that is not very sharp and daft is being silly or foolish. Hence, monition is the one-word substitute for the given phrase.

21. Option (2) is correct.

Foul is an adjective which means offensive and worse, aesthetic means something related to beauty or art, hideous means something that is really ugly and gross means very large and unattractive. The right option is concerned with beauty or the appreciation of art.

22. Option (2) is correct.

The given sentence is in past tense. The verb 'sat' shows the tense of the sentence. So, the second clause of the sentence must be in past and hence the right option is 'appreciated'. If we use any other option, tense consistency will be affected.

23. Option (2) is correct.

The verb in the sentence is 'sat' which is an intransitive verb and 'there' is an adverb of place. After a verb, we will not use another verb, instead, we will be using a gerund. Here the word 'enjoying' is a gerund and hence the right option is 'enjoying'. As 'enjoyed' and 'enjoys' are verbs in different forms, we cannot use anyone of those words.

24. Option (3) is correct.

The main part of the sentence given here ends with 'to'. So, a verb is required to make it infinitive. Option B will make it meaningful and coherent, as option C has got a verb and if we use the verb live to continue, the completed sentence will not have cohesion. We must go with option B and then C and finally A to make the sentence a coherent one.

25. Option (4) is correct.

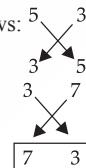
The first three options are incorrect as they are wrongly spelt and do not convey any meaning. The meaning of the word 'stridency' is very loud and harsh. Option 4 is the right answer.

26. Option (3) is correct.

As we know, train runs on track. Similarly, truck runs on roads.

27. Option (1) is correct.

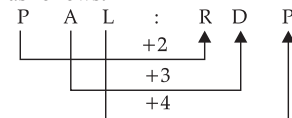
The pattern is as follows:



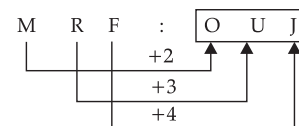
Similarly,

28. Option (2) is correct.

The pattern is as follows:



Similarly,



Therefore, MRF : O U J.

29. Option (4) is correct.

Except for Rabbit, all of the others are members of the same family. A lizard is a reptile; deer and elephants are mammals, as we all know. But rabbits belong to the Lagomorpha family.

30. Option (4) is correct.

From option (1): $20 - 30$
 $30 - 20 = 10$

From option (2): $35 - 45$
 $45 - 35 = 10$

From option (3): $45 - 55$
 $55 - 45 = 10$

And from option (4): $25 - 30 = 5$ which is not equal to 10.

Except for option (4), all others have the same pattern that is, the difference between each of the pair of numbers is 10.

31. Option (4) is correct.

Except for AZX, all others have the same pattern.

R	Q	P	X	W	V
↑	↑		↑	↑	
-1	-1		-1	-1	
Z	Y	X	A	Z	X
↑	↑		↑	↑	
-1	-1		-1	-2	

32. Option (1) is correct.

The given words in the sequence in which they occur in the dictionary is as follows:

1	2	3	4	5
Cherry	Chess	Chest	Childish	Chimney

So, from the above arrangement, we can say that chest is the third word.

33. Option (2) is correct.

The given series is as follows: 19, 9, 28, 37, 65, ?

And the pattern of the series is as follows:

$$19 + 9 = 28$$

$$9 + 28 = 37$$

$$28 + 37 = 65$$

$$37 + 65 = 102$$

Therefore, the next term will be 102.

34. Option (2) is correct.

The pattern of the series is as follows:

I , L , O , R , U

↑ ↑ ↑ ↑

+3 +3 +3 +3

Therefore, the next term will be U.

35. Option (1) is correct.

According to the question:

Ankur's brother's age 6 years from now is $32 + 6 = 38$ years.

Ratio of Ankur's sister and his brother after 6 years is 3 : 2.

Now, Ankur's sister's age 6 years from now is $3/2 \times 38 = 57$ years.

And Ankur's sister's present age is $57 - 6 = 51$ years.

Therefore, the ratio of Ankur and his sister's present age is 4 : 3.

Now, Ankur's present age is $4/3 \times 51 = 68$ years.

Therefore, Ankur's age 3 years from now is $68 + 3 = 71$ years.

36. Option (2) is correct.

Except word Start, all other words can be formed. Statement does not contain letter R.

37. Option (4) is correct.

FRAME is written as IDUPH

F	R	A	M	E
+3↓	+3↓	+3↓	+3↓	+3↓
I	U	D	P	H

Similarly, ROYAL is written in the same way and we get

R	O	Y	A	L
+3↓	+3↓	+3↓	+3↓	+3↓
U	R	B	D	O

Therefore, ROYAL is written as URBDO.

38. Option (4) is correct.

The given expression: $15 - 6 + 10 \times 3 \div 2 = ?$

After putting signs: $15 \times 6 \div 10 - 3 + 2$

$$9 - 1 = 8$$

39. Option (4) is correct.

Given expression: $12 + 10 - 28 \div 7 \times 4 = 48$

After interchanging signs:

$$12 + 10 \times 28 \div 7 - 4 = 48$$

$$12 + 10 \times 4 - 4 = 48$$

$$12 + 40 - 4 = 48$$

$$52 - 4 = 48$$

$$48 = 48$$

Therefore, LHS is equal to RHS.

40. Option (2) is correct.

Given that: $-4\$1 = 4$, $7\$-7 = 49$ and $3\$1 = -3$

$$-4\$1 = 4$$

$$(-4 \times 1) \times (-1) = 4$$

$$7\$-7 = 49$$

$$(7 \times -7) \times (-1) = -49$$

$$3\$1 = -3$$

$$(3 \times 1) \times (-1) = -3$$

Similarly, for $-8 \$ -5 = ?$

$$(-8 \times -5) \times (-1) = -40$$

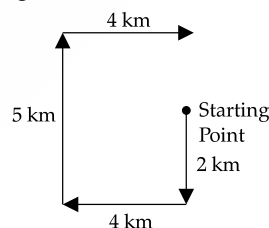
41. Option (2) is correct.

The pattern of the series is a combination of 4 AB in which there are three consecutive small terms starting from right end and shifting one place to the left. So, the next term would be abaBABAB.

ABABAbab, ABABabaB, ABAbabAB, ABabaBAB, AbabABAB, abaBABAB.

42. Option (2) is correct.

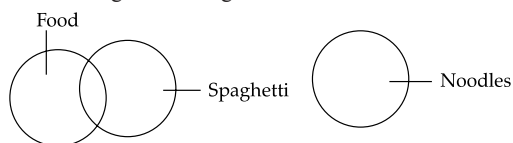
The direction diagram is as shown below:



From the above direction diagram, Biker is 3 km North (5 km - 2 km) with respect to his starting point.

43. Option (4) is correct.

The venn diagram of the given statements is as follows:



From conclusion I: All noodles are food is false.

From conclusion II: All food are noodles is false.

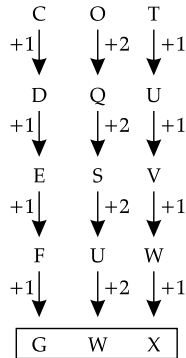
Therefore, neither conclusion I nor conclusion II follows.

44. **Option (1) is correct.**

From the given diagram, those who are athletes as well as cricketers are represented by CD.

45. **Option (2) is correct.**

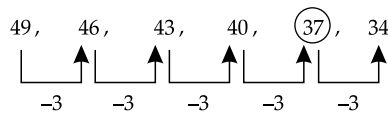
The pattern of the series is as follows:



Therefore, the next term would be GWX.

46. **Option (3) is correct.**

The pattern of the series is as follows:



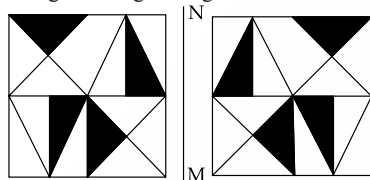
Therefore, the missing term would be 37.

47. **Option (2) is correct.**

Except for option (2, 22, 4444), all others have the same pattern.

48. **Option (1) is correct.**

The mirror image of the given figure is as follows:



49. **Option (3) is correct.**

In an open dice alternate pairs are opposite to each other.

Therefore, the opposite sides cannot be adjacent in the cube, thus the cube in the option (3) is not possible.

50. **Option (1) is correct.**

From option (1): 77,69,43,22 = TOMB

From option (2): 11,88,34,55 = FPIV

From option (3): 42,66,12,58 = FWER

From option (4): 30,65,24,65 = IRFR

51. **Option (4) is correct.**

$$(49)^{\frac{3}{2}} + (49)^{-\frac{3}{2}} = (7^2)^{\frac{3}{2}} + (7^2)^{-\frac{3}{2}}$$

$$= 7^3 + 7^{-3} = 7^3 + \frac{1}{7^3} = \frac{7^6 + 1}{7^3} = \frac{117650}{343}$$

52. **Option (2) is correct.**

$$(4)^{11} \times (5)^5 \times (3)^2 \times (13)^2$$

$$= (2^2)^{11} \times (5)^5 \times (3)^2 \times (13)^2$$

$$= (2)^{22} \times (5)^5 \times (3)^2 \times (13)^2$$

∴ Total number of prime factors = 22+5+2+2 = 31

53. **Option (3) is correct.**

$$\frac{15}{\sqrt{5} + 2} = \frac{15(\sqrt{5} - 2)}{(\sqrt{5} + 2)(\sqrt{5} - 2)}$$

$$= \frac{15(\sqrt{5} - 2)}{5 - 4} = 15(\sqrt{5} - 2) = 15\sqrt{5} - 30$$

54. **Option (1) is correct.**

$$x = \frac{(943 + 864)^2 - (943 - 864)^2}{1886 \times 1728}$$

$$= \frac{(943 + 864 + 943 - 864)(943 + 864 - 943 + 864)}{1886 \times 1728}$$

$$= \frac{(943 + 943)(864 + 864)}{1886 \times 1728} = \frac{1886 \times 1728}{1886 \times 1728} = 1$$

55. **Option (4) is correct.**

Congruence triangle also called similar triangle.

56. **Option (2) is correct.**

Using Pythagoras in triangle ABD

$$\left(\frac{a}{2}\right)^2 + (2\sqrt{3})^2 = a^2$$

$$\Rightarrow \frac{a^2}{4} + 12 = a^2$$

$$\Rightarrow a^2 - \frac{a^2}{4} = 12$$

$$\Rightarrow \frac{4a^2 - a^2}{4} = 12$$

$$\Rightarrow \frac{3a^2}{4} = 12 \Rightarrow a^2 = \frac{12 \times 4}{3} = 16 \Rightarrow a = 4$$

$$\therefore \text{Area of triangle} = \frac{\sqrt{3}}{4} \times a^2 = \frac{\sqrt{3}}{4} \times (4)^2 = 4\sqrt{3} \text{ cm}^2$$

57. **Option (3) is correct.**

$$\text{New length} = l \left(1 + \frac{10}{100}\right) = \frac{11l}{10}$$

$$\text{New breadth} = b \left(1 + \frac{20}{100}\right) = \frac{6b}{5}$$

$$\text{New area} = \frac{11l}{10} \times \frac{6b}{5} = \frac{33lb}{25}$$

$$\text{Increased area} = \frac{33lb}{25} - lb$$

$$= \frac{33lb - 25lb}{25} = \frac{8lb}{25}$$

$$\text{Percentage of increased area} = \frac{\frac{8lb}{25}}{lb} \times 100 = 32\%$$

Shortcut:

$$\text{Overall percentage change} = 20 + 10 + (20)(10)/100 = 32\%$$

58. **Option (4) is correct.**

Let the numbers are 3x, 6x and 8x.

According to the question,

$$(3x)(6x)(8x) = 9216$$

$$\Rightarrow x^3 = \frac{9216}{3 \times 6 \times 8} = 64$$

$$x = (64)^{\frac{1}{3}} = 4$$

$$\therefore \text{Sum of numbers} = 3x + 6x + 8x = 17x = 17(4) = 68$$

59. Option (1) is correct.

Let Simran joined after 'n' months

$$\therefore \text{Share ratio} = \frac{75000 \times 12}{60000 \times (12-n)} = \frac{3}{1}$$

$$\Rightarrow \frac{5 \times 12}{4 \times (12-n)} = \frac{3}{1}$$

$$\Rightarrow 12-n=5 \Rightarrow n=12-5=7 \text{ months}$$

60. Option (3) is correct.

$$\text{Total price of 30 chocolates} = 30 \times 25 = ₹ 750$$

$$\text{Total price of 20 chocolates} = 1000 - 750 = 250$$

\therefore Average price of 20 chocolates

$$= \frac{250}{20} = ₹ 12.5$$

61. Option (1) is correct.

$$\text{Simple interest} = \frac{P \times 5 \times 10}{100} + \frac{P \times 3 \times 15}{100}$$

$$47500 = P \left(\frac{50}{100} + \frac{45}{100} \right) = P \times \frac{95}{100}$$

$$\Rightarrow P = \frac{47500 \times 100}{95} = ₹ 50000$$

62. Option (3) is correct.

Given that, S.P. = 1386, Loss% = 23%

$$\begin{aligned} \therefore \text{C.P.} &= \frac{\text{S.P.} \times 100}{100 - \text{Loss}\%} = \frac{1386 \times 100}{100 - 23} \\ &= \frac{1386 \times 100}{77} = ₹ 1800 \end{aligned}$$

63. Option (3) is correct.

Let additional discount be $r\%$

$$\therefore \text{Purchase price} = 48000 \left(1 - \frac{13}{100} \right) \left(1 - \frac{r}{100} \right)$$

$$39672 = 48000 \times \frac{87}{100} \left(1 - \frac{r}{100} \right)$$

$$\Rightarrow 1 - \frac{r}{100} = \frac{39672}{480 \times 87} = \frac{19}{20}$$

$$\Rightarrow 1 - \frac{19}{20} = \frac{r}{100} \Rightarrow \frac{1}{20} = \frac{r}{100}$$

$$r = \frac{100}{20} = 5\%$$

64. Option (2) is correct.

$$\text{I. } \sqrt{144} \times \sqrt{36} < \sqrt[3]{125} \times \sqrt{121}$$

$$\Rightarrow 12 \times 6 < 5 \times 11$$

$$\Rightarrow 72 < 55 \text{ Not true}$$

$$\text{II. } \sqrt{324} + \sqrt{49} > \sqrt[3]{216} \times \sqrt{9}$$

$$\Rightarrow 18 + 7 > 6 \times 3$$

$$\Rightarrow 25 > 18, \text{ it is true}$$

65. Option (3) is correct.

Given, time taken by pipe X to fill the tank
= 20 hours

Time taken by pipe Y to fill the tank = 35 hours

Total capacity of tank = L.C.M. of 20 and 35 = 140 units

$$\text{Efficiency of pipe X} = \frac{140}{20} = 7 \text{ units/hour}$$

$$\text{Efficiency of pipe Y} = \frac{140}{35} = 4 \text{ units/hour}$$

Efficiency of pipe X and Y together = 7 + 4 = 11 units/2 hours

Now, 140 = 12 × 11 + 8

So both X and Y will work 2 hours and 12 times a day

\therefore Remaining 8 units can be filled by both X and Y

$$\text{Time taken by X to fill 4 units} = \frac{4}{7} \text{ hours}$$

$$\begin{aligned} \therefore \text{Total time} &= 2 \times 12 + 1 + \frac{4}{7} \\ &= 25 + \frac{4}{7} = \frac{179}{7} \text{ hours.} \end{aligned}$$

66. Option (3) is correct.

$$\text{Speed} = 54 \text{ km/h} = \frac{54 \times 1000}{60 \times 60} \text{ m/s} = 15 \text{ m/s}$$

Distance = 450 m

$$\text{Time} = \frac{\text{Distance}}{\text{Speed}} = \frac{450}{15} = 30 \text{ sec.}$$

67. Option (2) is correct.

First lowest marks = 45

Second lowest marks = 50

68. Option (1) is correct.

Average marks scored by division D = 60

Average marks scored by division A = 75

$$\text{Ratio} = \frac{60}{75} = \frac{4}{5} = 4 : 5$$

69. Option (4) is correct.

Average marks scored by F = 45

Average marks scored by C = 80

Less marks of F than C = 80 - 45 = 35

$$\text{Percentage} = \frac{35 \times 100}{80} = 43.75\%$$

70. Option (2) is correct.

Let total number of students in division A be x .

\therefore Total marks = 75x

Total decrease of marks = 5x

Percentage decrease of marks

$$= \frac{5x \times 100}{75x} = \frac{20}{3}\% = 6.67\%$$

71. Option (2) is correct.

Using pythagoras in triangle ABD,

$$AB^2 + AD^2 = BD^2$$

$$\Rightarrow AB^2 + (7)^2 = (25)^2$$

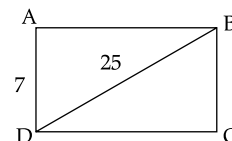
$$\Rightarrow AB^2 = (25)^2 - (7)^2$$

$$= (25 + 7)(25 - 7)$$

$$= 32 \times 18$$

$$= 16 \times 2 \times 18$$

$$= 16 \times 36$$



$$\Rightarrow AB = \sqrt{16 \times 36} = 4 \times 6 = 24 \text{ cm}$$

$$\text{Perimeter of rectangle} = 2(l + b) = 2(7 + 24) = 2 \times 31 = 62 \text{ cm}$$

72. Option (3) is correct.

Number of sides of polygon = 5 sides

$$\text{Interior angle} = \frac{(n-2)}{n} \times 180 = \frac{(5-2) \times 180}{5} = 108^\circ$$

$$\text{Exterior angle} = \frac{360}{n} = \frac{360}{5} = 72^\circ$$

$$\text{Difference} = 108^\circ - 72^\circ = 36^\circ$$

73. Option (3) is correct.

Given that side of cube = 3.5 cm

$$\begin{aligned} \text{Volume of cube} &= (\text{side})^3 \\ &= (3.5)^3 = 42.875 \text{ cm}^3 \end{aligned}$$

74. Option (1) is correct.

$$\angle X + \angle Y + \angle Z = 180^\circ$$

$$\Rightarrow 60^\circ + 90^\circ + \angle Z = 180^\circ$$

$$\Rightarrow 150^\circ + \angle Z = 180^\circ$$

$$\Rightarrow \angle Z = 180^\circ - 150^\circ = 30^\circ$$

$$\text{Now, } \sec Z + \frac{2}{\sqrt{3}} = \sec 30^\circ + \frac{2}{\sqrt{3}}$$

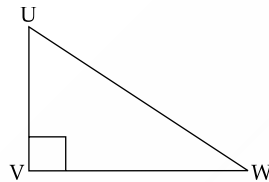
$$= \frac{2}{\sqrt{3}} + \frac{2}{\sqrt{3}} = \frac{4}{\sqrt{3}}$$

75. Option (3) is correct.

$$\tan U = \frac{VW}{UV} = \frac{12}{5}$$

$$\Rightarrow \frac{VW}{10} = \frac{12}{5}$$

$$\Rightarrow VW = \frac{12 \times 10}{5} = 24 \text{ cm}$$

**76. Option (4) is correct.**

Understanding and fulfilling customers' needs and demands can help a company's competitive position by helping the company define service and cost requirements.

Competitive advantage is what makes one entity's products or services more appealing to customers than those of competitors. Comparative advantages and differential advantages are two types of competitive advantages. Comparative advantage refers to a company's ability to produce something more efficiently than a competitor, resulting in higher profit margins. A differential advantage occurs when a company's products are perceived to be both unique and of higher quality than those of a competitor.

77. Option (3) is correct.

Deficit financing is a method of covering government deficits by printing new currency. The deficit is the difference between government expenditures and receipts. The expenditure includes both revenue and capital account disbursements. During deficit financing, the government borrows money from the RBI. When government expenditures exceed government revenues, deficit financing is required to close the deficit gap.

78. Option (4) is correct.

Ashoka was the most famous Mauryan ruler. He was the first ruler to try to communicate with the people through inscriptions. Ashoka's inscriptions contain information about his life story, internal and foreign policy, religious and moral prospects, Buddhism, and his animal and social welfare programme. These inscriptions can be found throughout India, Nepal, and Pakistan. The inscriptions of Ashoka are the first

tangible evidence of Buddhism. There are 33 inscriptions in total, which are primarily classified as follows: Important rock edicts, Minor rock rules, Separate the rock decrees, Edicts from the major pillars. Minor pillar decrees. The majority of Ashoka's inscriptions were written in Prakrit and in the Brahmi script. Prakrit inscriptions were written in Brahmi and Kharosthi scripts, which were accessible to the general public. The inscriptions discovered in Pakistan are written in the Kharosthi script.

79. Option (3) is correct.

In February 1537, Gujarat's ruler, Bahadur Shah, was killed in a conflict with the Portuguese in Diu, and his body was later dumped into the Arabian Sea.

Bahadur Shah was a Muzaffarid dynasty sultan who ruled the Gujarat Sultanate, a late mediaeval Indian kingdom, from 1526 to 1535 and again from 1536 to 1537. Bahadur Shah had already given the Portuguese the city of Bassein in 1534, and after that, he signed another treaty with them, giving them Daman & Diu, Mumbai, and Vasai in exchange for their support. While visiting them on a Portuguese ship anchored off the coast of Gujarat in 1537, Bahadur Shah was killed by the Portuguese and his body was thrown into the Arabian Sea.

80. Option (3) is correct.

The term 'NIFE' refers to the Earth's Core. The core is the Earth's innermost layer, with a radius of about 3500 km. The core is made of very heavy material, primarily nickel (Ni) and iron (Fe). Nickel and iron are abundant in NiFe. NiFe is also known as Ni - nickel and Fe - ferrous or iron layer. The central core is extremely hot and pressurised. The outer core is in a liquid state, whereas the inner core is solid.

81. Option (3) is correct.

The Konkan coast stretches from Daman in the north to Goa in the south. The Konkan coast is a 720-kilometre-long rugged section of India's western coastline. It runs between Maharashtra and Karnataka and connects the Western Ghats to the Arabian Sea via the Daman Ganga and Terekhol rivers. The Arabian Sea to the west and the Deccan plateau to the east form the boundaries of Konkan. The Konkan Coast begins in the north at Daman in the Gulf of Khambat and extends south with the western seaside areas of Maharashtra and Goa until it meets the Canara coast at the northern edge of Karwar District in Karnataka.

82. Option (2) is correct.

Kunitha, also known as Dollu Kunitha, is Karnataka's folk dance form. It is accompanied by the beats of decorated drums and singing and is primarily performed by the Kuruba caste of shepherds. Kathakali is a Kerala classical dance form. The Sangeet Natak Akademi currently grants classical status to nine Indian classical dance styles: Bharatanatyam (Tamil Nadu), Kathak (North, West, and Central India), Kathakali (South India), and Kathak (West Bengal) (Kerala) Kuchipudi (Andhra Pradesh), Odissi (Orissa), Manipuri (Manipur), Mohiniyattam (Kerala), Sattriya (Assam), and Chhau (Assam) are all dance forms (Eastern India).

83. Option (2) is correct.

According to the Indus Water Treaty, which was signed on September 19, 1960, by then Prime Minister Jawaharlal Nehru and President of Pakistan Ayub Khan. India has been granted 20% of the water from the Indus River for irrigation, power generation, and transportation purposes. According to the treaty, India governs the rivers Beas, Sutlej, and Ravi, while Pakistan governs the rivers Jhelum, Chenab, and Indus. The World Bank, which is also a signatory, assisted in the signing of the treaty. The treaty governs how the Indus River and its

tributaries, which flow through both countries, will be used. According to the treaty, India will govern the rivers Beas, Ravi, and Sutlej, while Pakistan will govern the rivers Indus, Chenab, and Jhelum. However, because the Indus originates in India, the country is permitted to use 20% of its water for irrigation, power generation, and transportation.

84. Option (2) is correct.

Prashant Singh did not receive the Dronacharya Award in 2017. He is an Indian politician who is currently a member of the Samajwadi Party. The Dronacharya Award is given to coaches who produce medal winners at prestigious international sporting events. The Indian government established the Dronacharya Award in 1985 to recognise excellence in sports coaching. A bronze statuette of Dronacharya, a scroll of honour, and a cash component of 5,00,000 rupees comprise the award. B.I. Fernandez is the Dronacharya Award's first foreign coach.

85. Option (4) is correct.

Many countries share China's land borders. The longest one is shared with Mongolia and is 4677 kilometres long, followed by Russia at 3645 kilometers, India at 3380 kilometers, and Myanmar at 2185 kilometers. North Korea, Russia, Mongolia, Kazakhstan, Kyrgyzstan, Tajikistan, Afghanistan, Pakistan, India, Nepal, Bhutan, Myanmar, Laos, and Vietnam have the most neighbours (14) sharing its 22,000 km land borders.

86. Option (3) is correct.

Bakelite is a poor heat and electricity conductor. It is a thermosetting plastic with extremely high internal resistance that resists the flow of circuit current through it. One of the first synthetic plastics, it was used for its electrical non conductivity and heat resistance in electrical insulators and products such as kitchenware, jewellery, children's toys, firearms, and so on.

87. Option (1) is correct.

Petrol has the lowest ignition temperature. It is highly flammable and can be ignited by a spark of fire. The lowest temperature at which any combustible substance catches fire and continues to burn when heated is known as the ignition temperature.

Ignition temperature is an important property of any fuel because it is only above this temperature that the combustion reaction of the fuel becomes self-sustaining. A certain amount of combustion is required in a typical gasifier to provide the energy required for drying, pyrolysis, and finally the endothermic gasification reaction. To prevent burning when it comes into contact with oxygen in the air, the temperature of the cooled product in torrefied should be lower than its ignition temperature.

88. Option (1) is correct.

The Indian Parliament has the authority to amend the constitution under Article 368 of Part XX of the Indian Constitution. This allows for changes to the nation's supreme law or fundamental law. Article 368 gives the Indian Parliament the authority to amend the constitution. Article 252 empowers the Indian Parliament to legislate for two or more states with the consent and adoption of any other state. Article 254 empowers Parliament to make laws for the whole or any part of India, and empowers the legislature of a state to make laws for the whole or any part of the state. Article 256 every state's executive power shall be exercised in such a manner as to ensure compliance with the laws enacted by the Parliament or with any other existing laws applicable to that state.

89. Option (3) is correct.

The Union Territory is addressed in Part 8 of the Indian Constitution. The Union Territory of India is described in our constitution between articles 239 and 242. There were 9

union territories in India, but as of January 26, 2020, Dadra and Nagar Haveli and Daman and Diu will be combined into a single territory, leaving India with 8 union territories. Delhi, Jammu and Kashmir, Ladakh, Dadra and Nagar Haveli, Daman and Diu, Puducherry, Chandigarh, Andaman and Nicobar Islands, and Lakshadweep are among India's eight union territories. Delhi, Puducherry, Jammu and Kashmir are the only union territories in India with legislatures. Union Territories are special administrative sectors in India that are run directly by the central government.

90. Option (1) is correct.

Peristalsis is the rhythmic contraction of the canal's lining muscles to push food along the gut. The movement consists of circular smooth muscle relaxation, followed by contraction behind a chewed material to keep it from moving backwards, and then longitudinal contraction to push the material forward. The term comes from the Greek word peristellein, which means 'to wrap around'.

91. Option (1) is correct.

Humans have sex chromosomes that determine their gender. In humans, each cell contains 46 (23 pairs) chromosomes. Twenty-two of these pairs are autosomes, and the sex chromosome differs between males and females. Males have one X and one Y chromosome, while females have two copies of the X chromosome. Each parent gives his or her offspring a set of 23 chromosomes, one pair of which are sex chromosomes, X and Y. A male is produced by combining X and Y, whereas a female is produced by combining XX.

92. Option (1) is correct.

The Union Ministry of Science and Technology launched the first ever Industry-Academia Mission, dubbed the "National Biopharma Mission," to accelerate biopharmaceutical development in India. Under this mission, the Innovate in India (i3) programme was launched to create an enabling ecosystem to promote indigenous manufacturing and entrepreneurship in this sector. A total of USD 250 million has been set aside for this mission, with the World Bank lending USD 125 million.

93. Option (4) is correct.

For the first time, scientists from Duke University in North Carolina, USA, created functional human skeletal muscle from stem cells in the laboratory. Human skeletal muscle was created by reprogramming blood cells or adult skin into a versatile and juvenile state. This advancement may benefit those suffering from degenerative muscular diseases.

94. Option (1) is correct.

The revised cost for the Socio-Economic and Caste Census 2011 (SEC 2011) has been approved at ₹ 4893.60 crores. The project, which ended on March 31, 2016, aimed to provide the government with the names and numbers of families in all Panchayats, as well as information on their status on seven deprivation parameters. It has completed all of its objectives.

95. Option (1) is correct.

The Real Estate (Regulation and Development) Act, which went into effect on May 1, 2017, requires regulatory authorities to resolve complaints in 60 days and Appellate Tribunals to adjudicate cases in 60 days. The act penalises developers if the project is delayed.

96. Option (2) is correct.

A push or pull on an object is referred to as force. A force can cause an object to accelerate, decelerate, remain stationary, or change shape. $F = m \times a = \text{force exerted} = \text{mass} \times \text{acceleration}$
 $a = (v_2 - v_1)/t$ Acceleration = (Final velocity – Initial velocity)/time Where F is the force applied to the body, m is its mass,

a is its acceleration, v_2 is the final velocity, v_1 is the initial velocity, and t is the time. Given data: the mass of the body $m = 4$ kg, Final velocity $v_2 = 25$ m/s, Initial velocity $v_1 = 15$ m/s, time $t = 5$ s. We know that, \Rightarrow Acceleration = (Final velocity – Initial velocity)/time $a = (25 - 15)/5 \text{ m/s}^2 = 2 \text{ m/s}^2$ Also, \Rightarrow Force exerted = mass \times acceleration \Rightarrow Force = $4 \times 2 = 8$ N.

97. Option (4) is correct.

The change in velocity of an object during uniform motion along a straight line is zero for any time interval and remains constant with time. The acceleration would also be zero in this case. In the case of uniform motion, this means that the rate of change of velocity, i.e., acceleration, is equal to zero.

98. Option (4) is correct.

Tropical rainforests are a type of rainforest found near the Earth's equator and are typically moist and hot biomes. These occur in areas with no dry season, such as the tropical

rainforest climate. They get a lot of rain, with an average annual rainfall of 1,680 mm, which can sometimes exceed that.

99. Option (3) is correct.

Valentino Rossi won the 2017 Dutch TT Moto GP motorcycle race. Glenn Maxwell captained the IPL team Kings XI Punjab in 2017. The 2017 ITTF Women's World Cup in table tennis was hosted by Canada rather than the United Kingdom. The 2017 ITTF Women's World Cup was a table tennis competition held from October 27 to 29, 2017 in Markham, Ontario. It was the ITTF-sanctioned event's 21st edition, and the first time it had been held in Canada.

100. Option (2) is correct.

Under character formatting, underlining is used in Microsoft Word to highlight specific text. Font style is used to alter the appearance of the default font or the font you were previously using. Font size is used to alter the size of the text. Effects are used to change the appearance of text.



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