

STAFF SELECTION COMMISSION
Multi Tasking (Non-Technical) Staff

SOLVED PAPER

(6th September 2023: Shift-2)

Time Allotted- 90 Minutes

Max marks- 270

Important Instructions:-

- ⇒ This paper contains 90 questions which are divided into 4 sections and 2 sections each has 20 questions each and other 2 has 25 questions each.
 - ✓ General English
 - ✓ Numerical Aptitude
 - ✓ General Intelligence & Reasoning
 - ✓ General Awareness
- ⇒ There will be 3 marks for each correct answer and also there is no negative marking in General Intelligence & Reasoning and Numerical Aptitude sections. But in the General Awareness & General English sections, there is a negative marking of one mark for each wrong answer.
- ⇒ Each question is compulsory to attempt and there will be no negative marking for unattempted questions.

General English

1. Parts of the following sentence have been given as options. Select the option that contains an error.
Existentialism has a reputation for being angst-ridden and gloomy mostly because of its emphasis on pondering the meaningless of existence.
 1. on pondering the meaningless of existence
 2. mostly because of its emphasis
 3. existentialism has a reputation
 4. for being angst-ridden and gloomy
2. Select the most appropriate option that can substitute the underlined segment in the given sentence.
To preparing the vine for plant, it should be cut back to 2 ft.
 1. prepares in vine in plant
 2. prepare a vine in planting
 3. prepared the vine of plant
 4. prepare the vine for planting
3. Select the most appropriate ANTONYM of the word given in brackets to fill in the blank.
The student provided her English teacher a short and _____ (incoherent) account of her journey to Shimla with her parents.
 1. humble
 2. lucid
 3. rough
 4. genuine
4. The following sentence has been split into four segments. Identify the segment that contains a grammatical error.
I want to/give you/an information about/the missing necklace.
 1. an information about
 2. the missing necklace
 3. give you
 4. i want to
5. Identify the most appropriate meaning of the given word.
Ancient
 1. Antique
 2. Unworn
 3. Contemporary
 4. Recent
6. Select the most appropriate option that can substitute the underlined segment in the given sentence.
They are sell their company's products to people.
 1. are sell the company
 2. are selling their company's
 3. was sell the company's
 4. is selling they company's
7. Select the most appropriate meaning of the underlined idiom.
Mary is a ball of fire and is always engaged in something creative.
 1. An active and energetic person
 2. A dull and insipid person
 3. To be good and beneficial for someone
 4. A talkative person
8. Select the most appropriate idiom to fill in the blank.
By living in a rural area with access to the city, she gets _____.
 1. the best of both worlds
 2. to keep an ear to the ground
 3. on cloud nine
 4. in for a penny in for a pound
9. Select the most appropriate option that can substitute the underlined segment in the given sentence.
The cats food bowl was empty, so he meowed incessantly until his owner finally filled it with fresh kibble.
 1. The cats'
 2. A cat's
 3. A cats'
 4. The cat's
10. Select the most appropriate meaning of the given idiom.
Get your act together
 1. To have patience
 2. To stay together
 3. To act in a play
 4. Get organised and do things better
11. Select the option that can be used as a one-word substitute for the given group of words.
Unpleasant
 1. Nebulous
 2. Natal
 3. Negligible
 4. Nasty
12. The following sentence has been divided into four parts. Identify the part that contains an error.
(A) The mother exclaimed/(B) when she saw her son/(C) stumble on the race track./(D) "Look, he fell!"
 1. B
 2. D
 3. C
 4. A
13. Select the most appropriate option that can rectify the underlined segment in the given sentence. If there is no need to rectify it, select 'no rectification needed'.
The conductor said that it was the worse quake he ever knew.
 1. more bad
 2. bad
 3. no rectification needed
 4. worst

14. Select the most appropriate meaning of the underlined idiom in the following sentence.
After having invested so much time and energy into the project, we are now back to square one.
1. Not ready for the consequence
 2. In the same city
 3. Fighting with each other
 4. Having to start all over again
15. Select the option that can be used as a one-word substitute for the given group of words.
Killing of one's own father
1. Matricide
 2. Filicide
 3. Patricide
 4. Suicide
16. The sentence given below has spelling errors. Select the sentence without spelling errors.
Though we read and hear a lot on green initiative, we hardly tweak our routines to suite the larger picture.
1. Though we read and hear a lot on green initiatives, we hardly tweak our routines to suit the larger picture.
 2. Throug we read and hear a lot on green initiatives, we hardly tweak our routines to suite the larger picture.
 3. Though we read and hear a lot on green initiatives, we hardly tweek our routines to suite the larger picture.
 4. Though we read and hear a lot on green iniciatives, we hardly tweek our routines to suite the larger picture.
17. Select the most appropriate synonym of the bracketed word in the following sentence to fill in the blank.
The athlete's injury was a _____ (defeat) for the team's chances of winning the championship.
1. progression
 2. breakthrough
 3. stress
 4. setback
18. Select the INCORRECTLY spelt word.
1. Parallel
 2. Recommend
 3. Irresistable
 4. Tomorrow
19. Select the correctly spelt word.
1. Millennium
 2. Milennium
 3. Millenum
 4. Milenium
20. Select the most appropriate option that can substitute the underlined segment in the following sentence.
She proposed to write the life history of the famous poet.
1. novel
 2. biography
 3. mythology
 4. autobiography

Comprehension:

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Democracy is a form of government where the power lies _____ (1) the people. It is based on the principles of equality, freedom and the rule of law. In a democratic society, _____ (2) have the right to participate in the decision-making process, _____ (3) directly or through elected representatives. Democracy also allows for the _____ (4) of individual rights and liberties. While democracy is not without its challenges, such as the need to balance competing interests and the risk of _____ (5) movements, it remains one of the most widely embraced forms of government around the world.

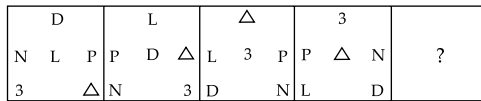
21. Select the most appropriate option to fill in blank no. 1.
1. towards
 2. on
 3. by
 4. with
22. Select the most appropriate option to fill in blank no. 2.
1. lawyers
 2. humans
 3. politicians
 4. citizens
23. Select the most appropriate option to fill in blank no. 3.
1. either
 2. however
 3. neither
 4. also





24. Select the most appropriate option to fill in blank no. 4.
1. delimitation
 2. protection
 3. diversion
 4. proscription
25. Select the most appropriate option to fill in blank no. 5.
1. marginal
 2. elitist
 3. populist
 4. negligible

General Intelligence & Reasoning			
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26. 21 is related to 86 following a certain logic. Following the same logic, 33 is related to 134. To which of the following is 25 related to, following the same logic?
1. 100
 2. 103
 3. 102
 4. 101
27. If G means '−', A means '×', D means '÷', B means '+', then what will come in place of the question mark (?) in the following equation?
12 A 7 G 100 D 5 B 17 = ?
1. 74
 2. 103
 3. 81
 4. 37
28. What should come in place of ? in the given series?
26 39 52 65 ? 91 104
1. 78
 2. 79
 3. 81
 4. 80
29. In a certain code language, 'BLAME' is coded as 'CMBNF' and 'CHANGE' is coded as 'DIBOHF'. What is the code for 'DESERT' in the given code language?
1. EGTGSV
 2. FHSQTV
 3. EFTFSU
 4. FGRFST
30. Read the given statement(s) and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statement(s).
- Statements:** Some dogs are bats. Some bats are cats
- Conclusions:**
- I. Some dogs are cats.
 - II. Some cats are dogs.
1. Both conclusions (I) and (II) follows.
 2. Only conclusion (II) follows.
 3. Neither conclusion (I) nor (II) follows.
 4. Only conclusion (I) follows.
31. Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. You have to decide which conclusion/s logically follow/s from the given statements.
- Statements:** Some paints are cats. All cats are dogs. Some dogs are bananas.
- Conclusion I:** Some paints are dogs.
- Conclusion II:** Some cats are bananas.
1. Neither conclusion (I) nor (II) follow.
 2. Both conclusions (I) and (II) follow.
 3. Only conclusion (I) follow.
 4. Only conclusion (II) follow.
32. What should come in place of '?' in the given series?
7 28 91 280 ? 2548 7651
1. 823
 2. 871
 3. 861
 4. 847
33. What will come in the place of the question mark (?) in the following equation, if '+' and '−' are interchanged and '×' and '÷' are interchanged?
 $3 \div 5 + 8 - 505 \times 5 = ?$
1. 106
 2. 102
 3. 104
 4. 108

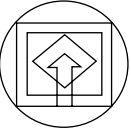
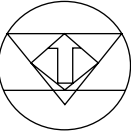
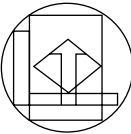
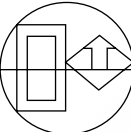
34. Which figure should replace the question mark (?) if the following figure series were to be continued?



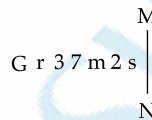
1.  2. 
3.  4. 

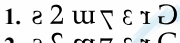
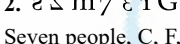
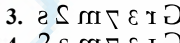
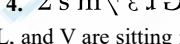
35. Select the option figure in which the given figure (X) is embedded as its part (rotation is NOT allowed).



1.  2. 
3.  4. 

36. What should come in place of '?' in the given series?
11 39 123 375 1131 ?
1. 3399 2. 3499 3. 3187 4. 3417
37. What should come in place of ? in the given series based on the English alphabetical order?
ESP, CRN, AQL, YPJ, ?
1. YMG 2. YNI 3. WOH 4. ZNG
38. Select the combination of letters that when sequentially placed in the blanks of the given series, will complete the series.
A _ AA _ _ AD _ _ DA
1. AADDA 2. DDAAA 3. ADDAD 4. DAADD
39. Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



1.  2. 
3.  4. 
40. Seven people, C, F, D, K, O, L, and V are sitting in a straight line, facing south. V sits second to the right of F. Only three people sit to the right of O. K is an immediate neighbour of O and D. Only three people sit between L and V. F is not an immediate neighbour of L.
Who sits to the extreme left of the line?
1. C 2. F 3. V 4. D
41. The position of how many letters will remain unchanged if each of the letter in the word 'GRAPES' is arranged in alphabetical order?
1. One 2. None 3. Four 4. Two

42. In a certain code language, 'WHAT' is coded as 5298 and 'THAN' is coded as 9826. What is the code for 'W' in the given code language?
1. 8 2. 5 3. 2 4. 6

43. BJTI is related to EMWL in a certain way based on the English alphabetical order. In the same way, HDRL is related to KGUO. To which of the following is OCGM related to, following the same logic?
1. RFIO 2. SEKO 3. RFJP 4. QEIR

44. Select the set in which the numbers are related in the same way as are the numbers of the following sets. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

- (14, 13, 32) (21, 13, 39)
1. 15, 7, 18 2. 19, 12, 36 3. 5, 19, 88 4. 11, 14, 43

45. What should come in place of ? in the given series based on the English alphabetical order?
NBX, MEW, LHV, KKV, ?
1. HMS 2. JNT 3. IMR 4. HNS

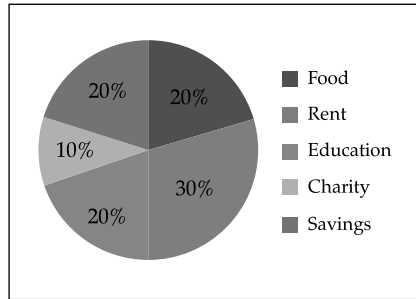
Numerical Aptitude

46. Pradeep is twice as good as Sandeep to complete a work. Working together, they can finish a piece of work in 28 days. In how many days can Pradeep alone finish the work?
1. 46 2. 40 3. 44 4. 42
47. A table showing the percentages of the total population of a town by age groups for the year 2016 is given below.

Age Group (in years)	Percent
up to 15	35
16–30	18.5
30–40	12.5
40–50	25.77
51 and above	8.23

- There are 2200 billion people below 40 years. How many billion people are in the age group 40–50?
1. 417 2. 1167 3. 274 4. 859
48. Two containers of equal capacity are full of a mixture of milk and water. In the first container, the ratio of milk to water is 3 : 11 and in the second container the ratio is 9 : 11. If both the mixtures are mixed in a container, what is the resulting ratio of milk to water?
1. 87 : 197 2. 21 : 87 3. 93 : 187 4. 93 : 179
49. In ABC club, 88% members are men and 12% members are women. If the average age of the men is 25 years and that of the women is 50 years, then what is the average age of all the members?
1. 27 2. 28 3. 26 4. 29
50. A is 25% more than B, and B is 40% less than C. If C is 20% more than D, then by what percentage is A less than D?
1. 12% 2. 5% 3. 15% 4. 10%

51. The following pie chart gives the monthly budget of a family on the heads - Food, Rent, Education, Charity and Savings. The total income of the family is ₹ 9,000. Study the pie chart carefully and answer the question.



What is the total expenditure on the heads - rent, savings, food and education?

1. ₹ 8,200 2. ₹ 8,100 3. ₹ 6,300 4. ₹ 6,500
52. Two tankers contain 850 litres and 680 litres of oil. Find the maximum capacity of a container which can measure the oil of both tankers when used, an exact number of times.
1. 425 litres 2. 680 litres 3. 340 litres 4. 170 litres
53. Find the mean proportional between 56 and 14.
1. 42 2. 14 3. 35 4. 28
54. A and B can finish a work in $5\frac{1}{3}$ days. A alone can finish this work in 8 days. A and B worked on alternate days (starting with B) to finish this work. In how many days will the work be finished?
1. 6 days 3. 11 days
2. $11\frac{1}{3}$ days 4. $6\frac{1}{3}$ days
55. The selling price of 10 articles is equal to the cost price of 13 articles. What is the gain percentage?
1. 30% 2. 25% 3. 20% 4. 40%
56. The simple interest on a certain sum for 4 years at the rate of 15% p.a. is ₹ 4,500 less than the simple interest on the same sum for 6 years at the same rate of interest. Find the sum.
1. ₹ 12,000 2. ₹ 13,000 3. ₹ 15,000 4. ₹ 14,000
57. The average of four consecutive odd numbers is 58. What is the lowest number?
1. 51 2. 57 3. 55 4. 53
58. At what rate per an annum will a sum of ₹ 6,400 fetch a compound interest (Compounded annually) of ₹ 1,344 in 2 years?
1. 10% 2. 8% 3. 12% 4. 5%
59. If $p : q = 5 : 2$, then $p^2 - q^2 : p^2 + q^2 = ?$
1. 29 : 21 2. 4 : 3 3. 3 : 4 4. 21 : 29
60. Simplify the following.
 $15 \div 5$ of $3 \times 4 + 8 \div 12$ of $4 \times 12 - 4 \div 5 \times 20$
1. $\frac{20}{3}$ 2. -10 3. 12 4. 1
61. A man takes 30 minutes to cover a certain distance at the speed of 8 km/h. If he walks at a speed of 16 km/h, he covers the same distance in:
1. 15 minutes 3. 25 minutes
2. 30 minutes 4. 20 minutes
62. Metallic spheres of radii 6 cm, 8 cm and 10 cm, respectively, are melted to form a single solid sphere. Find the radius of the resulting sphere (in cm).
1. 18 2. 12 3. 24 4. 16

63. Each edge of a cube is increased by 30%. What will be the increase in its surface area?
1. 90% 2. 60% 3. 30% 4. 69%
64. If there is a profit of 25% on the cost price of an article, the percentage of profit calculated on its selling price will be:
1. 20% 2. 60% 3. 18% 4. 22%
65. Trains A and B start at the same time. Train A travels at the speed of 50 km/h from station P to station Q and train B travels at the speed of 70 km/h from station Q to station P. They cross each other after 1 hour 20 minutes. What is the distance (in km) between station P and station Q?
1. 180 2. 150 3. 140 4. 160

General Awareness

66. Who inaugurated the 2023 World Squash Championships that was held in India?
1. KN Nehru 3. EV Velu
2. K Pomudi 4. Udhayanidhi Stalin
67. Who among the following is primarily regarded as a maestro of Hindustani classical music?
1. Bade Ghulam Ali Khan
2. Mavelikkara Prabhakara Varma
3. Sampagodu Vighnaraja
4. Sai Vignesh
68. What is 'Mahawat' in India?
1. Cold waves during the winter season
2. Cloud burst during the monsoon season
3. Cyclonic rainfall during the winter season
4. Hot and dry winds during the summer season
69. Who among the following is the author of the book 'Selection Day'?
1. Vikram Seth 3. Chetan Bhagat
2. Aravind Adiga 4. Amish Tripathi
70. Which Article of the Constitution of India deals with the organization of village panchayat?
1. Article 38 3. Article 40
2. Article 45 4. Article 36
71. Bharati Shivaji and Kanak Rele are exponents of _____.
1. Manipuri 3. Kathak
2. Mohiniyattam 4. Odissi
72. Which is the most common ore of oxidised mercury that occurs in granular crusts or veins associated with volcanic activity and hot springs?
1. Diaspore 3. Cinnabar
2. Siderite 4. Corundum
73. Women's World Boxing Championship 2023 was held in which city in India?
1. Goa 3. New Delhi
2. Punjab 4. Gujarat
74. Who is regarded as the 'Mother of Indian Revolution'?
1. Annie Besant 3. Madame Cama
2. Usha Mehta 4. Kasturba Gandhi
75. Which microscopic, single-celled photosynthetic organisms are known as the primary producers of the ocean - the organisms that form the base of the aquatic food chains?
1. Phytoplankton 3. Bacterioplankton
2. Zooplankton 4. Virioplankton
76. Which of the following novels is correctly paired with its author?
1. The Shadow Lines - RK Narayan
2. Malgudi Days - Khushwant Singh
3. The Namesake - Jhumpa Lahiri
4. Train to Pakistan - Amitav Ghosh

(information) does not take an indefinite article before it. Thus it will be preceded by 'a piece of information' or 'some information'.

5. **Option (1) is correct.**
The word 'ancient' means 'belonging to the very distant past and no longer in existence.' Thus, it is synonymous with 'antique' (very old).
6. **Option (2) is correct.**
The correct sentence is: They are selling their company's products to people. The part 'are sell their company's' will be substituted by 'are selling their company's' because the auxiliary verb(are) always takes -ing form of verb.
7. **Option (1) is correct.**
The idiom 'a ball of fire' signifies 'a person full of energy and enthusiasm'. Any person who is always engaged in something creative is, 'an active and energetic person'.
8. **Option (1) is correct.**
The idiom 'the best of both worlds' implies 'a situation in which you can enjoy the advantages of two very different things at the same time'; 'to keep an ear to the ground' means 'be well informed about events and trends.' The idiom 'on cloud nine' implies 'extremely happy'; 'in for a penny in for a pound' implies that a person should finish what he or she has started to do even though it may be difficult. The sentence claims that the man lives in a rural area with access to the city connotes that he enjoys the benefits of two different things at the same time.
9. **Option (4) is correct.**
The correct sentence is: The cat's food bowl was empty, so he meowed incessantly until his owner finally filled it with fresh kibble. The part 'The cats' will be substituted by 'the cat's' to demonstrate the state of possession' (indicated by the use of apostrophes).
10. **Option (4) is correct.**
The idiom 'get your act together' means 'start to behave more appropriately or effectively; get organised.'
11. **Option (4) is correct.**
'Unpleasant' means 'nasty' (filthy, foul). 'Nebulous' means 'unclear'.
12. **Option (2) is correct.**
The correct sentence is: The mother exclaimed when she saw her son stumble on the race track, "Look, he falls!". Here the part "Look, he falls!" will be replaced by "Look, he falls!". This is because the event occurs in the present, so the verb will be in simple present tense (falls). Hence part (D) has the error.
13. **Option (4) is correct.**
The correct sentence is: The conductor said that it was the worst quake he ever knew. Here, 'worse' will be replaced by 'worst'. The adjective 'worse' is in comparative degree, but there is no comparison being made here. The part demands an adjective in superlative degree, thus, 'worst' is the correct choice.
14. **Option (4) is correct.**
The idiom 'back to square one' means 'back to where one started, with no progress having been made.' The sentence states that after having invested time and energy into the project, no progress was made.
15. **Option (3) is correct.**
Killing of one's own father is called patricide; 'matricide' is 'the killing of one's mother.' Filicide is the deliberate act of a parent killing their own child. Suicide is the act or an instance of taking one's own life voluntarily and intentionally.
16. **Option (1) is correct.**
The correct sentence is: Though we read and hear a lot on green initiatives, we hardly tweak our routines to suit the larger picture. Option (2) has error in 'Throug' and 'suite';

option (3) has error in 'Throug' and 'tweek', while option (4) has errors in 'suite'; and 'iniciatives'.

17. **Option (4) is correct.**
The correct sentence is: The athlete's injury was a setback for the team's chances of winning the championship. The word 'defeat' means 'downfall'.
18. **Option (3) is correct.**
Irresistible. It will be spelt as 'Irresistible', meaning tempting.
19. **Option (1) is correct.**
Millennium. Other options have incorrect spellings.
20. **Option (2) is correct.**
The correct sentence is: Biography means an account of someone's life written by someone else. Mythology means very old stories and the beliefs contained in them. Autobiography implies the story of a person's life written by that person.
21. **Option (4) is correct.**
The correct sentence is: Democracy is a form of government where the power lies with the people. 'Lies with' means be the responsibility or fault of a particular person.
22. **Option (4) is correct.**
The correct sentence is: In a democratic society, citizens have the right to participate in the decision-making process. The meaning of citizen is a native or naturalised person who owes allegiance to a government and is entitled to protection from it. Since the sentence refers to people of a country, thus, 'citizen' is the appropriate word.
23. **Option (1) is correct.**
The correct sentence is: In a democratic society, citizens have the right to participate in the decision-making process either directly or through elected representatives. The context gives an option- right to participate in the decision-making process directly or through elected representatives. Therefore, the use of conjunction 'either...or' is correct.
24. **Option (2) is correct.**
The correct sentence is: Democracy also allows for the protection of individual rights and liberties. The passage highlights the features and benefits of a democracy, and this form of government protects/secures individual rights and liberties.
25. **Option (3) is correct.**
The correct sentence is: While democracy is not without its challenges, such as the need to balance competing interests and the risk of populist movements. Populist movements refer to political ideas and activities that are intended to get the support of ordinary people. 'Marginal' and 'negligible' movements are incorrect; while 'elitist' refers to some things controlled or owned only by the richest or best educated people. But this is contrary to the ideologies of a democracy.
26. **Option (3) is correct.**
Given that: 21 is related to 86 and 33 is related to 134
The pattern followed here is:
 $(1^{\text{st}} \text{ term} \times 4) + 2 = 2^{\text{nd}} \text{ term}$
So,
 $(21 \times 4) + 2 \Rightarrow 84 + 2 = 86$
And
 $(33 \times 4) + 2 \Rightarrow 132 + 2 = 134$
Similarly,
 $(25 \times 4) + 2 \Rightarrow 100 + 2 = 102$
Hence, 25 is related to 102.
27. **Option (3) is correct.**
Given series: 12 A 7 G 100 D 5 B 17 = ?
After putting the signs as per question, we get:
 $12 \times 7 - 100 \div 5 + 17$

Now, according to the BODMAS rule,
 $\Rightarrow 12 \times 7 - 20 + 17 \Rightarrow 84 - 20 + 17$
 $\Rightarrow 101 - 20 = 81$
 Hence, 81 is the correct answer.

28. Option (1) is correct.

Given that: 26 39 52 65 ? 91 104
 The pattern followed here is:
 (First approach)

$$1^{\text{st}} \text{ term} + 13 = 2^{\text{nd}} \text{ term}$$

So,

- $26 + 13 = 39$
- $39 + 13 = 52$
- $52 + 13 = 65$
- $65 + 13 = 78$
- $78 + 13 = 91$
- $91 + 13 = 104$

(Second approach)

These are multiples of 13

- $13 \times 2 = 26$
- $13 \times 3 = 39$
- $13 \times 4 = 52$
- $13 \times 5 = 65$
- $13 \times 6 = 78$
- $13 \times 7 = 91$
- $13 \times 8 = 104$

Hence, 78 is the correct answer.

29. Option (3) is correct.

Given that:
 BLAME is coded as CMBNF
 The pattern followed here is:

- B +1 C
- L +1 M
- A +1 B
- M +1 N
- E +1 F

And, CHANGE is coded as DIBOHF:

- C +1 D
- H +1 I
- A +1 B
- N +1 O
- G +1 H
- E +1 F

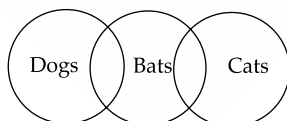
Similarly,

- D +1 E
- E +1 F
- S +1 T
- E +1 F
- R +1 S
- T +1 U

Hence, DESERT will be coded as EFTFSU.

30. Option (3) is correct.

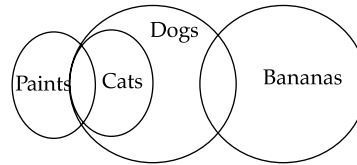
As per the given statements, following venn diagram can be made:



Both the conclusions are not definite as per the given information. Hence, neither conclusion I nor II follows.

31. Option (3) is correct.

As per the given statements, following venn diagram can be made:



Conclusion I - Some paints are dogs.

Some paints are cats and all cats are dogs, which implies some paints are dogs. So, this conclusion follows.

Conclusion II - Some cats are bananas.

All cats are dogs and some dogs are bananas, which implies some cats could be banana but it is not definite. So, this conclusion doesn't follow.

Hence, only conclusion I follows.

32. Option (4) is correct.

Given that: 7 28 91 280 ? 2548 7651

The pattern followed here is:

- $(1^{\text{st}} \text{ term} \times 3) + 7 = 2^{\text{nd}} \text{ term}$
- $(7 \times 3) + 7 = 28$
- $(28 \times 3) + 7 = 91$
- $(91 \times 3) + 7 = 280$
- $(280 \times 3) + 7 = 847$
- $(847 \times 3) + 7 = 2548$
- $(2548 \times 3) + 7 = 7651$

Hence, 847 is the missing number.

33. Option (4) is correct.

Given equation: $3 \div 5 + 8 - 505 \times 5 = ?$

After interchanging the signs as per question, we get $3 \times 5 - 8 + 505 \div 5$

Now, according to the BODMAS rule,

$$\Rightarrow 3 \times 5 - 8 + 101 \Rightarrow 15 - 8 + 101 \Rightarrow 116 - 8 = 108$$

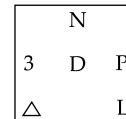
Hence, 108 is the correct answer.

34. Option (1) is correct.

Given figure:

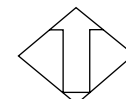
D	L	△	3	
N	L	P	P	△
3	△	N	3	D

As per the pattern followed and symmetry, the required image is:

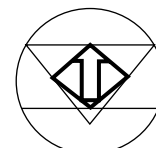


35. Option (2) is correct.

Given figure:



This image is embedded in the figure of option 2 as highlighted below.



36. Option (1) is correct.

Given that: 11 39 123 375 1131 ?

The pattern followed here is:

$$(1^{\text{st}} \text{ term} \times 3) + 6 = 2^{\text{nd}} \text{ term}$$

$$(11 \times 3) + 6 = 39$$

$$(39 \times 3) + 6 = 123$$

$$(123 \times 3) + 6 = 375$$

$$(375 \times 3) + 6 = 1131$$

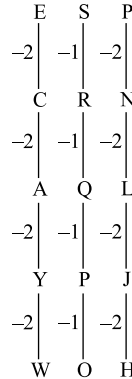
$$(1131 \times 3) + 6 = 3399$$

Hence, 3399 is the missing number.

37. Option (3) is correct.

Given that: ESP, CRN, AQL, YPJ, ?

The pattern followed here is:



Hence, WOH is the correct answer.

38. Option (2) is correct.

Given series: A_AA_AD_DA

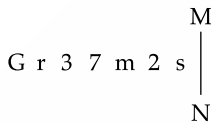
Upon inserting alphabets from option (2) sequentially, we get

ADAADAADA

Hence, it forms a logical series.

39. Option (3) is correct.

Given image:

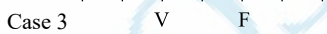
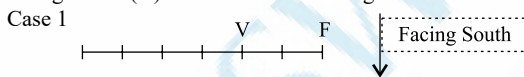


In the mirror image, objects on the left appears in right and object on the right appears in the left. Hence, the required image is:

z 2 m 7 3 r G

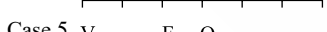
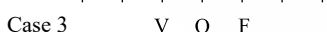
40. Option (2) is correct.

Given that: C, F, D, K, O, L and V are sitting in a straight line, facing south. (A) V sits second to the right of F



(B) Only three people sit to the right of O

Which implies that cases 2 and 4 are eliminated.



(C) K is the immediate neighbour of O and D

Which implies that case 3 is eliminated.

Case 1

	D	K	O	V		F	

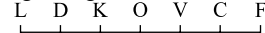
Case 5

V		F	O	K		D	

(D) Only three people sit between Land V

Which implies that case 5 is eliminated.

So, the final sitting arrangement will be as follows:



Hence, F sits to the extreme left of the line.

41. Option (4) is correct.

Given word: GRAPES

When we arrange this word alphabetically, we get

AEGPRS

Which means 2 letters 'P' and 'S' will remain unchanged at these positions.

Hence, two is the correct answer.

42. Option (2) is correct.

Given that:

WHAT is coded as 5298.

THAN is coded as 9826.

If we compare both of the words we get,

The codes for the similar alphabets in both the words, i.e. H, A, T are 9, 8, 2 (in random order), indicating that the only letter remaining in the word WHAT is 'W.'

Therefore, there is only 1 digit left for 'W' which is 5.

Hence, 5 is the correct answer.

43. Option (3) is correct.

Given that:

BJTI is related to EMWL.

The pattern followed here is:

B _____ +3 _____ E

J _____ +3 _____ M

T _____ +3 _____ W

I _____ +3 _____ L

And, HDRL is related to KGUO:

H _____ +3 _____ K

D _____ +3 _____ G

R _____ +3 _____ U

L _____ +3 _____ O

Similarly, OCGM is related to:

O _____ +3 _____ R

C _____ +3 _____ F

G _____ +3 _____ J

M _____ +3 _____ P

Hence, RFJP is the correct answer.

44. Option (2) is correct.

Given that:

(14, 13, 32)

(21, 13, 39)

The pattern followed here is:

1st term + 2nd term + 5 = 3rd term

Upon checking option one by one,

1. 15, 7, 18

15 + 7 + 5 = 27 (Incorrect)

2. 19, 12, 36

$$19 + 12 + 5 = 36 \text{ (Correct)}$$

3. 5, 19, 88

$$5 + 19 + 5 = 29 \text{ (Incorrect)}$$

4. 11, 14, 43

$$11 + 14 + 5 = 30 \text{ (Incorrect)}$$

Hence, 19, 12, 36 is the correct answer.

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

Given pairs: NBX, MEW, LHV, KKV, ?

The pattern followed here is:

$$\begin{array}{ccc} \text{N} & \text{B} & \text{X} \\ -1 & +3 & -1 \\ \text{M} & \text{E} & \text{W} \\ -1 & +3 & -1 \\ \text{L} & \text{H} & \text{V} \\ -1 & +3 & -1 \\ \text{K} & \text{K} & \text{U} \\ -1 & +3 & -1 \\ \text{J} & \text{N} & \text{T} \end{array}$$

Hence, JNT is the correct answer.

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

Let Pradeep completes the work in "x" days.

∴ Sandeep completes the same work in "2x" days.

According to the question

$$\frac{1}{x} + \frac{1}{2x} = \frac{1}{28} \Rightarrow \frac{3}{2x} = \frac{1}{28} \Rightarrow x = 42$$

∴ Pradeep will complete the work in 42 days.

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

Total percentage of people below 40 years
= (35 + 18.5 + 12.5) = 66%

Let the total population (in billion) = x

$$\therefore \frac{66}{100} \times x = 2200 \Rightarrow x = \frac{10000}{3}$$

Number of people in age group 40–50 (in billion)

$$= \frac{25.77}{100} \times \frac{10000}{3} = 859$$

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

Let the capacity of each container = 140 units (LCM of 14, 20)

$$\text{Milk in first container} = \frac{3}{3+11} \times 140 = 30 \text{ units}$$

$$\text{Milk in second container} = \frac{9}{9+11} \times 140 = 63 \text{ units}$$

$$\begin{aligned} \therefore \text{Required ratio} &= \frac{30+63}{(140-30)+(140-63)} \\ &= \frac{93}{187} = 93 : 187 \end{aligned}$$

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

Let there are 100 members in the club

∴ Sum of ages of all men in the club = 88 × 25 = 2200 years

Sum of ages of all women in the club = 12 × 50 = 600 years

$$\text{Average age of all the members} = \frac{2200+600}{100} = 28 \text{ years}$$

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

Let D is = 100

$$\therefore \text{C is} = \frac{100+20}{100} \times 100 = 120$$

$$\text{B is} = \frac{100-40}{100} \times 120 = 72$$

$$\text{A is} = \frac{100+25}{100} \times 72 = 90$$

Clearly A (90) is 10% less than D (100).

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

Total percentage of expenditure on heads – rent, savings, food and education = (20 + 30 + 20 + 20) = 90%

$$\begin{aligned} \therefore \text{Total expenditure on above heads} \\ &= \frac{90}{100} \times 9000 = ₹8100 \end{aligned}$$

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

The required capacity of container = L.C.M of 850 & 680
= 170 litres.

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

Let the mean proportion = x

$$\therefore \frac{56}{x} = \frac{x}{14} \quad [56 : x : x : 14]$$

$$\Rightarrow x^2 = 56 \times 14 = 14 \times 14 \times 4 \Rightarrow x = 28$$

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

A and B can finish the work in $5\frac{1}{3}$ days

$$\text{One day work of A and B} = \frac{1}{5\frac{1}{3}} = \frac{1}{\frac{16}{3}} = \frac{3}{16} \text{ th part}$$

$$\text{One day work of A} = \frac{1}{8} \text{ th part}$$

$$\text{One day work of B} = \frac{3}{16} - \frac{1}{8} = \frac{3-2}{16} = \frac{1}{16} \text{ part}$$

Work done in 10 days by A and B on alternate days with B

$$\text{starting} = \left(\frac{1}{16} \times 5\right) + \left(\frac{1}{8} \times 5\right) \Rightarrow \frac{5}{16} + \frac{5}{8} = \frac{5+10}{16} = \frac{15}{16} \text{ part}$$

$$\text{Remaining work} = 1 - \frac{15}{16} = \frac{1}{16} \text{ part}$$

Since, B can do $\frac{1}{16}$ th part in one day.

Hence, B will finish the work on 11th day.

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

∴ Selling price of 10 articles (m) = cost price of 13 articles (n)

$$\begin{aligned} \therefore \text{Gain/Profit percentage} &= \left[\frac{n-m}{m}\right] \times 100 \\ &= \left[\frac{13-10}{10}\right] \times 100 = 30\% \end{aligned}$$

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

Let the required sum = ₹ x

Simple interest on sum in 4 years is ₹ 4500 less than the simple interest on sum in 6 years.

∴ Simple interest in 2 years on same sum = ₹ 4500

According to the question

$$\frac{x \times 15 \times 2}{100} = 4500 \Rightarrow x = ₹ 15000$$

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

Let the first odd number = x

∴ 4 consecutive odd numbers are x, x + 2, x + 4, x + 6

$$\begin{aligned} \text{Average of 4 odd numbers} &= \frac{x+x+2+x+4+x+6}{4} \\ &= x+3 \end{aligned}$$

According to the question

$$x + 3 = 58 \Rightarrow x = 55$$

So, the lowest odd number is 55.

58. Option (1) is correct.

Principal amount, $P = ₹ 6400$

Time, $n = 2$ years

Compound interest, C.I. = ₹ 1344

Let rate of compound interest = $r\%$

$$\text{C.I.} = P \left[1 + \frac{r}{100} \right]^n - P$$

$$\Rightarrow 1344 = 6400 \left[1 + \frac{r}{100} \right]^2 - 6400$$

$$\Rightarrow 1 + \frac{r}{100} = \sqrt{\frac{7744}{6400}} = \frac{88}{80}$$

$$\Rightarrow \frac{r}{100} = \frac{88}{80} - 1 = \frac{8}{80} \Rightarrow r = 10$$

\therefore Rate of compound interest = 10%

59. Option (4) is correct.

$$\therefore \frac{P}{q} = \frac{5}{2}$$

Let $P = 5$ & $q = 2$

$$\therefore \frac{P^2 - q^2}{P^2 + q^2} = \frac{5^2 - 2^2}{5^2 + 2^2} = \frac{21}{29} = 21 : 29$$

60. Option (2) is correct.

$15 \div 5$ of $3 \times 4 + 8 \div 12$ of $4 \times 12 - 4 \times 5 \times 20$

Use BODMAS to solve the expression.

$$\begin{aligned} &= 15 \div 5 \times 4 + 8 \div 48 \times 12 - \frac{4}{5} \times 20 \\ &= \frac{15}{5} \times 4 + \frac{8}{48} \times 12 - 16 = 4 + 2 - 16 = -10 \end{aligned}$$

61. Option (1) is correct.

Distance covered by a man with 8 km/h in 30 minutes

$$= 8 \times \frac{1}{2} = 4 \text{ km}$$

4 km will be covered with 16 km/h in $\frac{4}{16}$ hour

$$= \frac{1}{4} \text{ hour} = \frac{1}{4} \times 60 \text{ minutes} = 15 \text{ minutes}$$

62. Option (2) is correct.

Volume of sphere = $\frac{4}{3}\pi r^3$ (where r is radius)

Let radius of resulting sphere = r cm

Volume of 3 given sphere = Volume of resulting sphere

$$\text{i.e. } \frac{4}{3} \times \pi \times 6^3 + \frac{4}{3} \times \pi \times 8^3 + \frac{4}{3} \times \pi \times 10^3 = \frac{4}{3} \times \pi r^3$$

$$6^3 + 8^3 + 10^3 = r^3 \Rightarrow r^3 = 216 + 512 + 1000$$

$$\Rightarrow r^3 = 1728 \Rightarrow r = \sqrt[3]{1728} = 12$$

\therefore Required radius = 12 cm

63. Option (4) is correct.

Let the original edge of cube = a units

\therefore the original surface area of cube $6a^2$

$$\text{New edge of cube} = \frac{130}{100} a = \frac{13}{10} a$$

$$\therefore \text{New surface area of cube} = 6 \times \left(\frac{13}{10} a \right)^2$$

$$\text{Increase in surface area} = \left[\frac{6 \times \frac{169}{100} a^2 - 6a^2}{6a^2} \right] \times 100 = 69\%$$

64. Option (1) is correct.

Let the cost price of an article = ₹100

$$\therefore \text{Selling price of an article} = \frac{125}{100} \times 100 = ₹125$$

New profit percentage based on selling price

$$= \frac{25}{125} \times 100 = 20\%$$

65. Option (4) is correct.

The relative speed of both the trains = $(50 + 70)$ km/h = 120 km/h

$$\text{Time to cross each other} = 1 \text{ hour } 20 \text{ min} = \frac{4}{3} \text{ h}$$

$$\therefore \text{Distance between the stations} = 120 \times \frac{4}{3} = 160 \text{ km}$$

66. Option (4) is correct.

The 2023 World Squash Championship was held in Chennai, Tamil Nadu. It was inaugurated by Udhayanidhi Stalin, minister for Youth Welfare and Sports Development of Tamil Nadu. There were eight participating countries in the championship namely- Hong Kong, India, Japan, Malaysia, Egypt, South Africa, Australia, and Colombia. Egypt won the championship by beating Malaysia 2-1 in the final.

67. Option (1) is correct.

Bade Ghulam Ali Khan is known as the maestro of Hindustani Classical Music. He was an Indian vocalist from Patiala Gharana. He worked under the pen name of Sabrang and was trained by his father Ali Baksh Khan and Ustad Bade Inayat Khan. He was honoured with Sangeet Natak Academic Award, Sangeet Natak Akademi fellow and Padma Bhushan.

68. Option (3) is correct.

Mahawat is the total amount of rain in the winter season, which is caused by the western cyclonic disturbances in the north and north-western parts of India.

69. Option (2) is correct.

Books	Author
A Suitable Boy, The Golden Gate, and An Equal Music	Vikram Seth
The White Tiger, Last Man in Tower, Selection Day	Aravind Adiga
Five Point Someone, The Story of my Marriage, The Three mistakes of my Life, 400 days, One Arranged Murder	Chetan Bhagat
The Shiva Trilogy, Immortal India, Ram Chandra Series, Indic Chronicles	Amish Tripathi

70. Option (3) is correct.

Article 40 of the Indian constitution deals with the organisation of panchayats in villages which states that the state shall undertake necessary steps to organise village panchayats. The state shall furnish the village panchayats with some powers

and authority as may be necessary to enable them to function as units of self-government.

Article 38 of the Indian constitution says that the state shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life.

Article 45 of the Indian constitution provides for free and compulsory education for children until they complete the age of fourteen years.

Article 36 of the Indian constitution defines the 'state.'

71. Option (2) is correct.

Bharati Shivaji and Kanak Rele are exponents of Mohiniyattam. Mohiniyattam is the dance of Mohini, who is considered to be an incarnation of Lord Vishnu. The reference of this dance form can be found in Vyavaharamala written in 1709 by Mazhamagalum Narayanan Namputiri. It is a Lasya type of dance that showcases a more graceful, gentle and feminine form of dancing.

Bharati Shivaji was a choreographer, author and dancer. She was awarded with Padma Shri, the Sangeet Natak Akademi Award, and Sahitya Kala Parishad. Kanak Rele was an Indian choreographer and dancer. She passed away in February 2023.

72. Option (3) is correct.

Cinnabar is an ore of Mercury which is bright red to reddish-brown in colour. Its formula is HgS. It is used for pigmentation in traditional medicine and cosmetics. In its natural form, the ore is toxic for human consumption due to the presence of Mercury.

Diaspore is an ore of aluminium. Chemically, it is an Aluminium Hydroxide Oxide mineral. Its colour may vary from white to grey, yellow, brown, or even pink. It is most commonly used as a gemstone.

Siderite is an ore of iron which is used for the production of steel. It consists of 48% iron and its color ranges from yellow to dark brown or black.

Corundum is a naturally transparent crystalline form of Aluminium oxide. It is a rock-forming mineral.

73. Option (3) is correct.

The Women Boxing Championship 2023 was held in New Delhi from March 15 - 26, 2023. The maximum number of medals were won by India. IBA is the International Boxing Association which is headquartered in Lausanne, Switzerland. The President of IBA is Umar Kremlev.

74. Option (3) is correct.

Madam Bhikaji Cama is known as 'The Mother of the Indian Revolution.' She was a prominent figure in the Indian freedom movement and was the first Indian to unfurl a precursor of the Indian National Flag in a foreign country- Stuttgart, Germany. She was an advocate of women's rights.

Annie Besant was a British Socialist, women's rights activist, theosophist, educationist, and orator. She was the first woman President of the Indian National Congress and headed the Calcutta session of INC in 1917.

Kasturbha Gandhi was an Indian political activist and wife of Mahatma Gandhi. She participated in various civil disobedience and nonviolent protest movements alongside him. She was a strong advocate for women's rights.

Usha Mehta was a freedom fighter in India and is famously known for running 'an underground radio station' during the Quit India movement. It was also called as 'Secret Congress Radio.'

75. Option (1) is correct.

Phytoplankton are autotrophic organisms that are single-celled organisms. They form the base of aquatic food chains and are not visible to the naked eye. These obtain energy through the process of photosynthesis.

Zooplankton are microscopic aquatic organisms such as protozoans, jellyfish larvae, and larval stages of larger marine animals like fish. They are generally found near the surface of water as they are weak swimmers and tend to drift along with the water current.

76. Option (3) is correct.

Novel's Name	Author's Name
The Shadow Lines	Amitav Ghosh
Malgudi Days	R.K. Narayan
The Namesake	Jhumpa Lahiri
Train to Pakistan	Khushwant Singh

77. Option (4) is correct.

The Green Channel service is one of the communication channels of the Indian Postal Service. In this, green-coloured mailboxes are placed at the post offices in the large and metro cities. The letters inside these mailboxes are meant for local delivery within the same city or its nearby areas. It is the fastest mail option within the city. The Indian Postal Service has introduced six communication channels to facilitate faster communication from person to person at different places. These channels are - Rajdhani Channel, Metro Channel, Green Channel, Business Channel, Bulk Channel, and Periodical Channel.

Union Minister of Communications - Ashwini Vaishnav.

78. Option (3) is correct.

Under the 'Ujjwal Bharat, Ujjwal Bhavishya - Power @2047', PM Narendra Modi inaugurated the 100 MW Ramagundam Floating Solar Project in Telangana. It is India's largest floating solar PV project with 4.5 lakh 'Made in India' solar PV modules.

'Ujjwal Bharat Ujjwal Bhavishya' focuses on the transformation in the power sector achieved in the last eight years. It was organised across the country as part of the ongoing 'Azadi Ka Amrit Mahotsav'. It is an initiative by the Ministry of Power and Ministry of New and Renewable Energy and all Power CPSEs and State DISCOMs. The celebration showcases the achievements in India's power sector through short films made by various Power CPSEs, through Nuked Natakas based on electrification schemes and their benefits and also cultural programmes. The district administration, village Headmen and localities are fully involved in the preparation.

79. Option (2) is correct.

The Strait of Gibraltar is a narrow waterway that separates Southern Spain in Europe from northern Morocco in Africa. It connects the Atlantic Ocean with the Mediterranean Sea and is one of the most strategically and economically significant waterways in the world. It is 900 metres deep.

The Bosphorus or Bosphorus Strait is a natural strait connecting the Black Sea and the Sea of Marmara. It is situated in Istanbul, Turkey. It forms a natural boundary and is 31 km in length and 700m in width.

The Dardanelles Strait or Strait of Gallipoli is a natural waterway connecting the Aegean Sea and the Mediterranean Sea. It is located to the south of the Bosphorus Strait and Istanbul and is 61 km in length and 1.2 km in width.

The Strait of Malacca connects the South China Sea and the Indian Ocean while separating the Malay Peninsula from Sumatra. In fact, it forms the shortest route between the Pacific Ocean and the Indian Ocean. It plays an important role in the global trade and energy transportation.

80. Option (2) is correct.

Pandit Birju Maharaj was an Indian composer, singer, and dancer who practised Kathak dance in India. He was an

exponent of the Lucknow 'Kalka-Bindadin' Gharana. He was a vocalist of Hindustani classical music and was honoured with Padma Vibhushan. He passed away at the age of 83. Kathak is the classical dance of Uttar Pradesh and is one of the eight major forms of Indian classical dance.

81. Option (3) is correct.

MFI stands for Micro-Finance Institutions. These provide targeted financial services to low-income individuals and micro-entrepreneurs enabling financial inclusion. MFIs provide small loans, savings accounts, and insurance for individuals who typically lack access to traditional banking services.

82. Option (1) is correct.

Personal income is the sum total of all the earnings and revenue an individual has received from all the sources in a given period of time. It is often reported before taxes and other deductions. Transfer payments are the payments or incomes for which no goods or services are being paid for. These include subsidy or benefit payments. These type of payments usually redistribute the money to the strata that require the payment. These are transferred into government accounts as these are methods to achieve social goals such as Medicare, welfare programs, subsidies etc. These are not part of national income as this is a one-sided payment.

83. Option (4) is correct.

Ishwar Chandra Vidyasagar was a prominent Indian social reformer and educator. He was a key figure in the Bengal Renaissance during the 19th century. He is considered as the 'Father of Bengali Prose.' He was instrumental in establishing schools for the girl child. He had an important role in the passing of the Widow Remarriage Act of 1856, which allowed Hindu widows to remarry. He was involved in various philanthropic activities, such as relief work during famines and efforts to provide aid to the needy.

84. Option (2) is correct.

Bharhut Stupa is located in Satna district, Madhya Pradesh. It is one of the oldest Buddhist stupas in India and holds significant historical and archaeological importance. It is known for its sculptures and stone carvings of the life of Lord Buddha, Jataka tales (stories of Buddha's past lives), and other Buddhist themes. It dates back to the 2nd century BC and it is constructed in the hemispherical shape of Buddhist stupas.

85. Option (3) is correct.

Mahamastakabhisheka is performed every 12 years at the Digambara sacred complex at Shravanabelagola in Karnataka, India. It is also known as 'Grand Consecration' or 'The Great Indian Festival.' The anointment of the Bahubali Gommateshwara statue is the most famous consecration. This forms an integral part of the ancient and composite Jain tradition. It is held in veneration of a 17.4-metre-high monolithic statue of the Siddha Bahubali. The last anointing took place in 2018 under the leadership of Charukeerthi Bhattaraka Swamiji of Shravanabelagola. The next anointment will happen in 2030.

86. Option (3) is correct.

Buddhism is the most practised religion in Bhutan and is followed by 75-80% of the population. There is complete freedom to practice any religion.

Bhutan's Capital- Thimphu
Official language - Dzongkha

87. Option (3) is correct.

The Madhavpur fair is an annual event held in the Madhavpur village of Porbandar District, Gujarat. It is a cultural event that celebrates the marriage between Lord Krishna and Rukmani, which took place in Madhavpur village. Mishmi Tribe of Arunachal Pradesh is a part of this fair as Rukmani was the daughter of great King Bhishmaka, who belonged to this tribe. The fair brings together Northeast and West India. There are different performances including music, dance, and theatre by artists from both regions.

88. Option (4) is correct.

Pritam Siwach was the former Indian women's hockey team captain. At present, she is the coach of the Indian hockey women's team. She was a part of the Indian women's hockey team that won a silver medal at the 1998 Asian Games and a gold at the Commonwealth Games 2002. She was the first woman hockey coach to be given the Dronacharya Award.

89. Option (4) is correct.

Mrinalini Vikram Sarabhai was an Indian classical dancer who was also the founder and director of the Darpana Academy of Performing Arts. She was a trained and Kathakali dancer and was awarded Padma Shri and Padma Vibhushan by the Government of India. She was married to Vikram Sarabhai, who is considered as the father of Indian space program.

Sonal Mansingh is a Bharatnatyam and Odissi guru and dancer. She was the youngest recipient of Padma Bhushan in 1992 and Padma Vibhushan in 2003. She is also a member of Rajya Sabha. She founded the Centre for Indian Classical Dances (CICD), New Delhi.

Shovona Narayan is an Indian Kathak dancer and was trained under Birju Maharaj.

Padma Subrahmanyam is an Indian classical Bharatanatyam dancer. She is a dancer, choreographer, author, and teacher.

90. Option (2) is correct.

Article 32 of the Indian constitution states that every citizen of India has the right to seek constitutional remedy from the Supreme Court if they have been deprived of their fundamental rights.

Article 25 of the Constitution of India provides the freedom of conscience, the freedom to profess, practice and propagate religion to all citizens.

Article 21 of the Constitution of India establishes the Right to Life, which is also a fundamental right. It provides two rights - the right to life and the right to personal liberty. The right to life is also known as the 'heart of fundamental rights'.

Article 29 of the Constitution deals with the protection of the interests of Minorities. It provides them the right to conserve their culture, script, and language.