

**STAFF SELECTION COMMISSION**  
**Multi Tasking (Non-Technical) Staff**

**SOLVED PAPER**

**(12<sup>th</sup> July 2022: Shift-1)**

**Time Allotted-** 100 Minutes

**Max marks-** 100

**Important Instructions:-**

- ⇒ This paper contains 100 questions which are divided into 4 sections and each section contains 25 questions.
  - ✓ General English
  - ✓ General Intelligence & Reasoning
  - ✓ Numerical Aptitude
  - ✓ General Awareness
- ⇒ There will be 1 mark for each correct answer and also there will be a negative marking of 0.25 for each wrong answer.
- ⇒ Each question is compulsory to attempt and there will be no negative marking for unattempted questions.

**General English**

1. Select the most appropriate meaning of the given idiom.  
Have a whale of a time  
1. Be extremely busy with work  
2. A good thing that seems bad at first  
3. Have an exceptionally fun or exciting experience  
4. Immediate involvement of everyone present
2. Parts of the following sentence have been given as options. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer.  
Public agencies and nonprofit conservation groups is already working to promote conservation.  
1. groups is already working  
2. public agencies and nonprofit conservation  
3. to promote conservation  
4. no error
3. Parts of the following sentence have been given as options. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer.  
The thing about anger is that it can either be a helpful emotion or a discouraging one.  
1. a helpful emotion or a discouraging one  
2. the thing about anger  
3. no error  
4. is that it can either be
4. Select the option that can be used as a one-word substitute for the given group of words.  
A person exhibiting excessive worry about one's health  
1. Intellectual                                      3. Megalomaniac  
2. Hypochondriac                                4. Expert
5. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement required'.  
I work hardly too earn bread and butter for my family.  
1. work hardest too                                3. no improvement required  
2. work hard to                                      4. works hardly to
6. The following sentence has been divided into parts. One of them may contain an error.  
Select the part that contains the error from the given options.  
If you don't find any error, mark 'No error' as your answer.  
I was at a party / with some off my / friends in Mumbai.  
1. friends in Mumbai                              3. no error  
2. with some off my                                4. I was at a party
7. Select the most appropriate meaning of the given idiom.  
Crocodile tears  
1. Hopeless situation                              3. False tears  
2. Totally different                                4. Of less worth
8. Select the option that corrects the misspelt words in the given sentence.  
A baloon may liave the earth with a charg.  
1. A balloon may leave the earth with a charge.  
2. A ballon may leave the earth with a charrge.  
3. A balloon may live the earth with a charrge.  
4. A ballun may leave the earth with a charge.
9. Select the most appropriate ANTONYM of the given word.  
Moil  
1. Cultivate    3. Discourage  
2. Grow    4. Work
10. Select the correctly spelt word.  
1. Innability      2. Inabilty      3. Inability      4. Inablity
11. Select the most appropriate ANTONYM of the given word.  
Obedient  
1. Compliant    3. Cheery  
2. Submissive                                        4. Resistant
12. Select the most appropriate synonym of the given word.  
Intricate  
1. Basic    3. Painted  
2. Complicated                                        4. Developed
13. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.  
A better plan is to going and has a lavish dinner at a fine restaurant.  
1. is to go and have                                3. is to gone and have  
2. no substitution required                        4. was to going and have
14. Select the option that can be used as a one-word substitute for the given group of words.  
One who feeds on human flesh  
1. Cannibal      2. Hedonist      3. Stoic      4. Samaritan

15. Select the most appropriate synonym of the underlined word.  
All branded shoes are priced extravagantly.  
1. Modestly                      3. Expensively  
2. Economically                4. Meagerly
16. Select the most appropriate option to fill in the blank.  
It's \_\_\_\_\_ too late to start your own business.  
1. never            2. no            3. neither            4. nor
17. Select the most appropriate option to fill in the blank.  
It was impossible \_\_\_\_\_ guess what he was doing.  
1. to            2. at            3. on            4. of
18. Select the most appropriate ANTONYM of the given word.  
Evident  
1. Obvious            2. Indistinct            3. Stubborn            4. Irritable
19. Select the option that can be used as a one-word substitute for the given group of words.  
A person who believes in or tries to bring about a state of lawlessness  
1. Ephemeral            2. Deluge            3. Gazette            4. Anarchist
20. Select the most appropriate option to fill in the blank.  
The sudden death of our uncle was \_\_\_\_\_ for all of us.  
1. tragic                              3. gentle  
2. fragile                              4. dissuasive

**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.

Nitrogen is essential to life (1) \_\_\_\_\_ Earth. It is a component of all proteins, and it can be (2) \_\_\_\_\_ in all living systems. Nitrogen compounds are (3) \_\_\_\_\_ in organic materials, foods, fertilisers, explosives and poisons. Nitrogen is crucial to life, (4) \_\_\_\_\_ in excess it can also be (5) \_\_\_\_\_ to the environment.

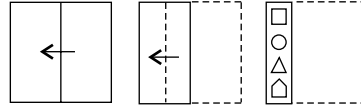
21. Select the most appropriate option to fill in blank number 1.  
1. at            2. into            3. on            4. in
22. Select the most appropriate option to fill in blank number 2.  
1. founder            2. find            3. founded            4. found
23. Select the most appropriate option to fill in blank number 3.  
1. function            2. instant            3. immediate            4. present
24. Select the most appropriate option to fill in blank number 4.  
1. such            2. because            3. but            4. if
25. Select the most appropriate option to fill in blank number 5.  
1. harmful            2. pliable            3. optimistic            4. rational

**General Intelligence & Reasoning**

26. Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number.  
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /deleting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)  
2 : 6 :: 4 : 60 :: 7 : ?  
1. 600            2. 105            3. 201            4. 336
27. Six girls, Pooja, Qimat, Reeti, Shweta, Tejaswini and Vineeta, are sitting around a circular table. All of them are facing towards the centre of the table (but not necessarily in the same order). Tejaswini is the immediate neighbour of Vineeta and Reeti. Pooja is to the immediate left of Vineeta. Qimat is fourth to the right of Pooja. Shweta is to the immediate left of Pooja. Who is sitting to the immediate left of Shweta?  
1. Tejaswini            2. Pooja            3. Qimat            4. Reeti

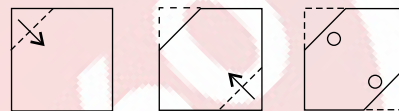
28. P, Q, R, S and T are five students who scored different marks in an examination. Only two people scored more P than but less than S. Q scored the highest marks. T scored more marks than R. Who got the 4th highest marks?  
1. P            2. R            3. Q            4. S

29. The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded?



- 1.
- 2.
- 3.
- 4.

30. The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded?



- 1.
- 2.
- 3.
- 4.

31. Six persons are sitting in two straight rows facing north. Their names are Farhan, Utkarsh, Yugal, Krishna, Chaman and Manish. Farhan and Manish are sitting at diagonally opposite ends. Utkarsh is in the top row and to the immediate right of Farhan. Krishna is second to the left of Manish while Yugal and Krishna are not in the same row. Who is sitting at the diagonally opposite end to Yugal?  
1. Manish            2. Krishna            3. Utkarsh            4. Chaman

32. After interchanging which two signs will the value of the given expression be '356'?

$$133 + 49 - 16 \div 2 \times 34$$

1. + and -            2. - and ÷            3. × and +            4. ÷ and ×

33. Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.

PAN : SCP :: HOP : ?

1. KQR            2. KRQ            3. KSQ            4. KQS

34. Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.

ROM, URJ, XUG, AXD, ?

1. DAA            2. DAD            3. DAB            4. DBA

35. Select the option that is related to the fifth term in the same way as the second term is related to the first term and the fourth term is related to the third term.

TREE : RTEE :: KEEP : EKPE :: SOLO : ?

1. OOSL            2. OLSO            3. OSOL            4. LOSO

36. 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 /deleting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(3, 6, 18) (5, 7, 35)

1. (8, 13, 94)                      3. (8, 12, 86)  
2. (7, 12, 74)                      4. (6, 14, 84)

37. In a certain code language, 'Here we go west' is written as '8 6 4 9', 'West and east best' is written as '4 @ # pr' and 'East direction sun' is written as '# jt qm'. Which one of the following is the possible code for 'direction east' in that code language?

1. @ jt                      2. qm it                      3. 4 qm                      4. # qm

38. Read the given statements 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 statements.

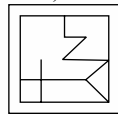
**Statements:**

Some pets are birds.  
All birds are mats.

**Conclusions:**

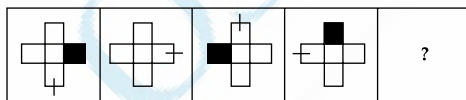
- I. All mats are birds.  
II. Some mats are pets.  
1. Only conclusion II follows.  
2. Neither conclusion I nor II follows.  
3. Both conclusions I and II follow.  
4. Only conclusion I follows.

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



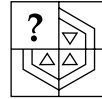
1.                      3.   
2.                      4.

40. Select the figure from among the given options that can replace the question mark (?) in the following series.



1.                      3.   
2.                      4.

41. Select the figure from the options that can replace the question mark (?) and complete the pattern. (Rotation is not allowed)



1.                      3.   
2.                      4.

42. In a certain code language, 'IFSP' is written as 'JHTR' and 'MPWF' is written as 'NRXH'.

How will 'TOAD' be written in that language?

1. UQCE                      2. UQBF                      3. UQCF                      4. UPBF

43. Read the given statements 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 statements.

**Statements:**

No plate is a spoon.  
Some plates are forks.  
All forks are knives.

**Conclusions:**

- I. Some plates are knives is a possibility.  
II. No spoon is a fork.  
1. Only conclusion I follows  
2. Neither conclusion I nor II follows  
3. Both conclusions I and II follow  
4. Only conclusion II follows

44. D 2 is related to H 6 in a certain way. In the same way, L 11 is related to P 15. To which of the following is T 18 related following the same logic?

1. Z 22                      2. X 22                      3. Y 22                      4. W 22

45. Which two signs need to be interchanged to make the following equation correct?

$$9 + 3 - 4 \div 5 \times 2 = 9$$

1. - and  $\times$                       2. + and  $\times$                       3. + and  $\div$                       4. - and +

46. Select the number from among the given options that can replace the question mark (?) in the following series.

728, 717, 695, 662, 618, ?

1. 564                      2. 561                      3. 563                      4. 562

47. In a certain code language, 'ANAEMIA' is written as 'AOAENIA', 'AQUEOUS' is written as 'ARUEOUT', and 'LIVELY' is written as 'MIWEMZ'. How will 'EUGENIA' be written in that language?

1. EUHEOJA                      3. EUHEOIA  
2. FVGFNJB                      4. FUGFNJB

48. In a certain code language, 'POR' is coded as '52' and 'AND' is coded as '22'. How will 'VXB' be coded in that language?

1. 51                      2. 49                      3. 48                      4. 52

49. Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number.

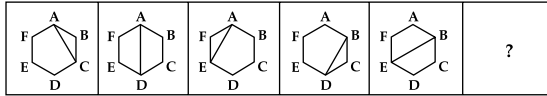
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its

constituent digits. E.g. 13 – Operations on 13 such as adding /deleting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

12 : 20 :: 8 : 12 :: 34 : ?

1. 52      2. 64      3. 48      4. 56

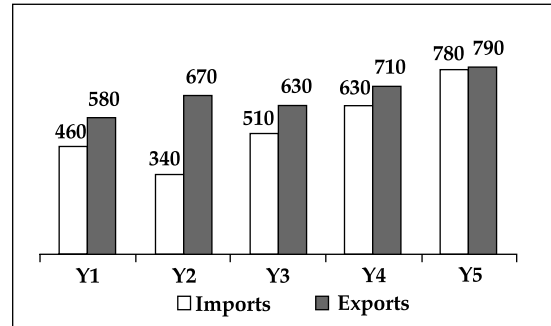
50. Select the figure from among the given options that can replace the question mark (?) in the following series.



1.      3.
2.      4.

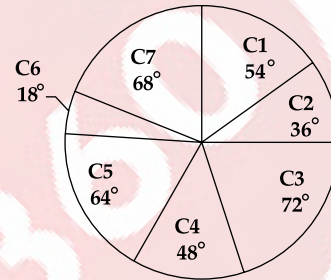
### Numerical Aptitude

51. Vishal sells a bag at a profit of 40%. If Vishal's profit is ₹880, then what is the cost price of the bag?  
1. ₹2,000      2. ₹2,450      3. ₹1,900      4. ₹2,200
52. A 900 meter long train crosses a 1200 metres long platform completely in 70 seconds. What is the speed of the train?  
1. 117 km/h      2. 108 km/h      3. 99 km/h      4. 90 km/h
53. ₹12,000 is lent for one year at the rate of 15% per annum, the interest being compounded annually. If the compounding of the interest is done half-yearly, then how much more interest will be obtained at the end of the one-year period on the same initial sum?  
1. ₹72.5      2. ₹82.8      3. ₹60.5      4. ₹67.5
54. A 480 m long train takes 16 seconds to pass a pole. how long will it take to pass a platform that is 900 m long?  
1. 47 seconds      3. 46 seconds  
2. 45 seconds      4. 48 seconds
55. If ₹1,000 is divided into three parts in the ratio 2 : 3 : 5, find the value of the smallest part.  
1. ₹100      2. ₹300      3. ₹200      4. ₹400
56. Ishita can read a newspaper in 'n' minutes. What part of the newspaper can she read in 7 minutes ( $n > 7$ )  
1.  $\frac{n}{7}$       2.  $7n^2$       3.  $7n$       4.  $\frac{7}{n}$
57. There are two numbers such that the first number is four times of the second number. If their average is 65, then what is the second number?  
1. 26      2. 14      3. 24      4. 28
58. Find the value of p, when  $p = (5 \div 6) \text{ of } 54 - 40 \div 10 - 41 - 22$   
1. - 11      2. - 22      3. - 18      4. - 23
59. The base of a triangle is 16 cm and its area is  $144 \text{ cm}^2$ . Find its corresponding height, with respect to the given base.  
1. 18 cm      2. 9 cm      3. 24 cm      4. 12 cm
60. A train moves at a speed of 35 km/h for the first 2 hours and at a speed of 50 km/h for the next 4 hours. Find the average speed of the train during the entire journey.  
1. 47 km/h      2. 50 km/h      3. 45 km/h      4. 35 km/h
61. The bar chart given below shows the exports (in ₹000) and imports (in ₹000) of a country for 5 consecutive years.



What is the positive difference in the total export figures of all the five years taken together and the total import figures of all the five years taken together?

1. ₹6,20,000      2. ₹5,40,000      3. ₹5,80,000      4. ₹6,60,000
62. The following pie chart shows the sectors representing the shares of the number of electric buses manufactured in each of 7 different colours in a given year in terms of the central angles (in degrees) with respect to the total number of buses manufactured during that year of all the 7 colours taken together.



What is the difference in the percentage shares of buses of C4 and C6? [Give your answer correct to 2 decimal places.]

1. 11.11%      2. 8.33%      3. 9.09%      4. 12.5%
63. The selling prices of two articles are equal. If the first article is sold at a profit of 20% and the second article is sold at a loss of 20%, what will be the overall loss percentage?  
1. 4%      2. 3.5%      3. 2.5%      4. 2%
64. The table below gives the ranks secured by five different students in three different subjects in a qualifying examination:

Subject	Maths	Physics	Chemistry
A	12	22	14
B	15	21	15
C	3	15	22
D	14	24	1
E	18	13	2

Find the positive difference between the ranks secured by A in Physics and a Maths.

1. 25      2. 10      3. 15      4. 20
65. Rachit invests ₹12,000 for a 2-year period at a certain rate of simple interest per annum. Prasad invests ₹12,000 for a 2-year period at the same rate of interest per annum as Rachit, but in Prasad case the interest is compounded annually. Find the rate of interest per annum if Prasad receives ₹172.80 more as interest than Rachit at the end of the 2-year period.  
1. 10%      2. 8%      3. 12%      4. 5%
66. What is the value of  $\frac{5}{12} \times \frac{7}{12} \div \left( \frac{1}{75} + \frac{5}{12} \text{ of } \frac{36}{25} \right) + \frac{4}{5} \times \frac{75}{16}$  ?  
1.  $\frac{8305}{1104}$       2.  $\frac{4675}{1104}$       3.  $\frac{2565}{2208}$       4.  $\frac{9155}{2208}$

67. If the population of a town is 12,000 and the population increases at the rate of 10% per annum, then find the population after 3 years.  
1. 15,972      2. 12,200      3. 11,200      4. 10,200
68. If  $16 : x :: x : 196$ , find the positive value of  $x$ ?  
1. 60      2. 62      3. 56      4. 64
69. 80 liters of a mixture of alcohol and water contains 60% alcohol. If 'X' liters of water is added to this mixture, then the percentage of alcohol in the new mixture becomes 40%. What is the value of 'X'?  
1. 20      2. 80      3. 40      4. 60
70. The length, the breadth, and the height of a cuboid are 40 cm, 20 cm and 10 cm, respectively. What is the volume of this cuboid?  
1.  $16000 \text{ cm}^3$       2.  $8000 \text{ cm}^3$       3.  $2000 \text{ cm}^3$       4.  $4000 \text{ cm}^3$
71. Akshay has 30 articles, each having the same cost price. He marked the price of each article at 30% above its cost price. He sold 15 of the articles at a discount of 20% each, and the remaining 15 articles at a discount of 10% each, thereby gaining a total profit of ₹630. What was the cost price of each article?  
1. ₹240      2. ₹180      3. ₹280      4. ₹200
72. Bobby and Billy can complete a job in 28 days and 20 days, respectively. They work together for 5 days, after which Billy leaves the job. In how many days did Bobby alone complete the rest of the job?  
1. 15 days      2. 20 days      3. 12 days      4. 16 days
73. What is the value of  $[7 \div 14 \times 8 + (5 \div 15 \times 6 - 4 \times 3)]$ ?  
1. -4      2. -2      3. -6      4. -5
74. The volume of a cone is  $27720 \text{ cm}^3$ . If the height of the cone is 20 cm, then what will be the area of the base?  
1.  $4158 \text{ cm}^2$       2.  $4272 \text{ cm}^2$       3.  $4626 \text{ cm}^2$       4.  $4836 \text{ cm}^2$
75. In an office of 900 employees, on a particular day, except for 10% of the female employees, all employees were present. On the next day, except for 8% of the male employees, all employees were present. The number of employees present on each of these two days was the same. Find the total number of male employees on the payrolls of this office.  
1. 550      2. 450      3. 800      4. 500
- 
- General Awareness**
- 
76. Tanjore Balasaraswati was known for which classical dance form?  
1. Bihu      3. Manipuri  
2. Bharatanatyam      4. Odissi
77. Which of the following persons won the 'Best Female Debut' Award at the 2021 Paralympic Sports Awards 2021?  
1. Deepa Malik      3. Avani Lekhara  
2. Bhavinaben Patel      4. Mirabai Chanu
78. Which of the following rivers forms the largest river system of Rajasthan?  
1. Krishna      2. Narmada      3. Tapi      4. Luni
79. In human beings, the small intestine is coiled and is about \_\_\_\_\_ metres long.  
1. 1 to 1.5      2. 3 to 3.5      3. 2 to 2.5      4. 7 to 7.5
80. Who among the following was the first athlete to represent India in fencing at the Tokyo Olympics 2020?  
1. Aditi Ashok      3. Bhavani Devi  
2. PT Usha      4. PV Sindhu
81. A form of financial service which provides small loan and other financial services to poor and low-income households is called \_\_\_\_\_.  
1. microfinance      3. invoice financing  
2. commercial mortgage      4. personal finance
82. Which of the following are also called the amphibians of the plant kingdom?  
1. Pteridophytes      3. Angiosperms  
2. Thallophytes      4. Bryophytes
83. Buddha attained enlightenment at \_\_\_\_\_.  
1. Varanasi      3. Kusinara  
2. Bodh Gaya      4. Pataliputra
84. 'Unfinished: A Memoir' is the autobiography of \_\_\_\_\_.  
1. Priyanka Chopra Jonas      3. Kareena Kapoor  
2. Deepika Padukone      4. Alia Bhatt
85. Which of the following festivals is celebrated when the annual harvest takes place in Assam?  
1. Lohri      3. Magh Bihu  
2. Pongal      4. Makaravilakku
86. Which of the following is considered to be the fifth state of matter?  
1. Bose-Einstein condensate      3. Solid  
2. Plasma      4. Gas
87. Which of the following peninsular rivers has the largest drainage basin?  
1. Godavari      2. Mahanadi      3. Narmada      4. Krishna
88. A type of unemployment in rural areas when people are not able to find jobs during some months of the year is called \_\_\_\_\_.  
1. educated unemployment      3. frictional unemployment  
2. disguised unemployment      4. seasonal unemployment
89. Vasco da Gama, a Portuguese explorer came to India in \_\_\_\_\_.  
1. 1496      2. 1498      3. 1495      4. 1497
90. Who among the following addressed the Indian National Congress as its President in 1887?  
1. Balgangadhar Tilak      3. WC Bannerji  
2. Badruddin Tyabji      4. Dadabhai Naoroji
91. Which team lost to Dabang Delhi KC in the finals of the Pro Kabaddi League season 8?  
1. Puneri Paltan      3. Gujarat Giants  
2. Patna Pirates      4. UP Yoddha
92. Soilless agriculture is called \_\_\_\_\_.  
1. hydroponics      3. dry farming  
2. shifting agriculture      4. pastoral farming
93. Which Article of the Indian Constitution enshrines the Right against Exploitation?  
1. Article 23      2. Article 21      3. Article 25      4. Article 22
94. What does 'Chaitya' in Buddhist architecture refer to?  
1. Buddha relic      3. Residence  
2. Prayer hall      4. Monastery
95. As per Census 2011, what is the Total Fertility Rate (an approximate range) in India?  
1. 3.1 - 3.9      2. 2.1 - 2.9      3. 5.1 - 5.9      4. 4.1 - 4.9
96. Who among the following is a famous Sitar player?  
1. Ustad Rehman Khan      3. Ali Ahmad Hussain  
2. Kishan Maharaj      4. Anoushka Shankar
97. As per the Constitution of India, the President of India shall hold office for a term of \_\_\_\_\_ from the date on which he enters upon his office.  
1. four years      3. three years  
2. six years      4. five years
98. Mohiniyattam is a classical dance form of which Indian state?  
1. Andhra Pradesh      3. Tamil Nadu  
2. Kerala      4. Assam
99. Which Chola ruler built the Brihadeshwara Temple at Tanjore?  
1. Rajaraja I      3. Vijayalaya  
2. Rajendra I      4. Rajendra III
100. Which state of India has set up District Investment Promotion Agencies (DIPA)?  
1. Karnataka      3. Odisha  
2. Haryana      4. West Bengal

### Answer Key

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

### Answers with Explanations

1. **Option (3) is correct.**  
'Have a whale of a time' means 'very enjoyable experience'.  
Example: We had a whale of a time in Mumbai.
2. **Option (1) is correct.**  
The correct sentence is: Public agencies and non-profit conservation groups are already working to promote conservation. The subject is in plural 'Public agencies and non-profit conservation', thus the verb will also be plural (are), instead of 'is'.
3. **Option (4) is correct.**  
The correct sentence is: The thing about anger is that it can either be a helpful emotion or a discouraging one. The auxiliary verb 'can' agrees with 'be', not 'been'. So 'is that it can either be' will replace 'is that it can either been'.
4. **Option (2) is correct.**  
'Intellectual' means 'involving a person's ability to think and to understand ideas and information.' 'Hypochondriac' means 'a person who is abnormally anxious about their health.' Megalomaniac is a person who has an obsessive desire for power. 'Expert' is a person who is very knowledgeable about or skilful in a particular area. Therefore, a person exhibiting excessive worry about one's health is a hypochondriac.
5. **Option (2) is correct.**  
The correct sentence is: I work hard to earn bread and butter for my family. The phrase 'work hardly too' will be replaced by 'work hard to'. The adverb 'hardly' is synonymous to 'scarcely'. It means I do not work hard.
6. **Option (2) is correct.**  
The correct sentence is: I was at a party with some of my friends in Mumbai. 'Of' is a preposition that indicates relationships between other words, such as belonging, things made of other things. 'Off' indicates separation or disconnection. Therefore, 'of' fits the blank.
7. **Option (3) is correct.**  
'Crocodile tears' means 'tears or expressions of sorrow that are insincere.' Thus, 'false tears' is correct.
8. **Option (1) is correct.**  
The spelling 'balloon' is correct; 'leave' and 'charge' are correct. Thus, the sentence 'A balloon may leave the earth with a charge' is correct.
9. **Option (3) is correct.**  
The word 'moil' means 'work hard.' The only negative word is 'discourage'.
10. **Option (3) is correct.**  
The correctly spelt word is 'inability'.
11. **Option (4) is correct.**  
'Obedient' means 'complying or willing to comply with an order or request'. All words are positive in meaning, except 'resistant'.
12. **Option (2) is correct.**  
'Intricate' means 'very complicated or detailed.' Thus, 'complicates' is the correct answer.
13. **Option (1) is correct.**  
The correct sentence is: A better plan is to go and have a lavish dinner at a fine restaurant. The phrase 'is to going and has' will be replaced by 'is to go and have'. The infinitive form 'to' is followed by the base form of the verb 'go', not 'going', and the plural form 'go' and 'have'.
14. **Option (1) is correct.**  
'Hedonist' is 'a person who believes that the pursuit of pleasure is the most important thing in life.' 'Stoic' implies an apparent indifference to pleasure or especially to pain often as a matter of principle or self-discipline. 'Samaritan' is 'a charitable or helpful person'. While 'cannibal' is the one who feeds on human flesh.
15. **Option (3) is correct.**  
Modestly means reflecting a moderate or humble estimate of one's merits, importance. 'Economically' is in a way that involves careful use of money or resources; 'expensively' implies 'in a way that costs a lot of money.' 'Meagrely' is 'deficient in amount or quality or extent.' Therefore, the synonym of 'extravagantly' is 'expensively'.
16. **Option (1) is correct.**  
The correct sentence is: It's never too late to start your own business. The blank needs an adverb to modify and qualify the adverb 'too'. Thus, only 'never' (at no occasion) is appropriate.
17. **Option (1) is correct.**  
The correct sentence is: It was impossible to guess what he was doing. 'Impossible' can be followed by an infinitive verb only when the subject of the finite verb is the introductory "it".
18. **Option (2) is correct.**  
'Evident' is clearly seen or understood. Therefore, 'obvious' is the synonym and the correct antonym is 'indistinct'.
19. **Option (4) is correct.**  
'Ephemeral' is 'lasting for a very short time.' 'Deluge' means a severe flood. 'Gazette' means 'a journal or newspaper.' The meaning of anarchist is a person who rebels against any authority, established order, or ruling power. Therefore, a person who believes in or tries to bring about a state of lawlessness is an anarchist.

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

The correct sentence is: The sudden death of our uncle was tragic for all of us. A news of death of a family member is always heart-breaking and tragic.

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

The correct sentence is: Nitrogen is essential to life on Earth. The preposition 'on' is used when something is touching the surface of something. 'At' and 'into' denotes direction and movement respectively.

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

The correct sentence is: It is a component of all proteins, and it can be found in all living systems. 'Founded' is the past tense of the verb found. Found as verb also refers to establish something, basing something on an idea, feeling, basis. The paragraph is in present tense, thus, 'found' is appropriate.

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

The correct sentence is: Nitrogen compounds are present in organic materials, foods, fertilisers, explosives and poisons.

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

The correct sentence is: Nitrogen is crucial to life, but in excess it can also be... The statement does not have a conditional clause- though nitrogen is crucial to life, but released in excess amount, it can be harmful. This presents a contrasting idea.

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

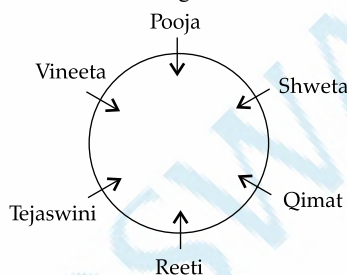
The correct sentence is: Nitrogen is crucial to life, but in excess it can also be harmful to the environment. The two clauses express a contrasting proposition- benefits of nitrogen and the harmful side to it. Thus, the correct answer is 'harmful'.

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

Given that: 2 : 6  
 $2^3 - 2 = 6$  (cube of 1<sup>st</sup> number - 1<sup>st</sup> number : 2<sup>nd</sup> number)  
 And, 4 : 60  
 $4^3 - 4 = 60$   
 Similarly, 7 : ?  
 $7^3 - 7 = 336$

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

The sitting arrangement of six girls around a circular table facing the centre is as following:



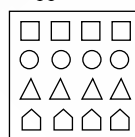
Therefore, Qimat is sitting immediate left of Shweta.

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

The arrangement of five friends according to their marks is as follows:  
 $Q > T > P > R > S$   
 Therefore, R gets the fourth highest marks.

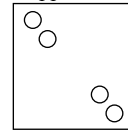
29. **Option (3) is correct.**

After unfolding, it would appear like:



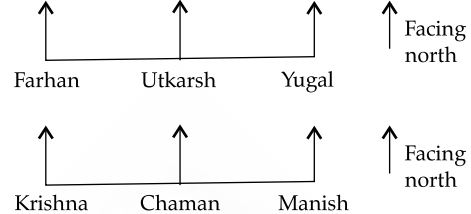
30. **Option (4) is correct.**

After unfolding, it would appear like:



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

The sitting arrangement of six persons in two straight rows facing north is as following:



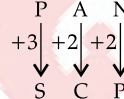
From the above arrangements, Krishna is sitting at diagonally opposite end to Yugal.

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

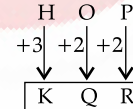
Given expression:  $133 + 49 - 16 \div 2 \times 34$   
 Upon checking option 1 and interchanging sign, we get:  
 $133 - 49 + 16 \div 2 \times 34$   
 $\Rightarrow 133 - 49 + 8 \times 34$   
 $\Rightarrow 133 - 49 + 272$   
 $\Rightarrow 356$   
 Therefore, + and - is the correct answer.

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

Given that: PAN : SCP



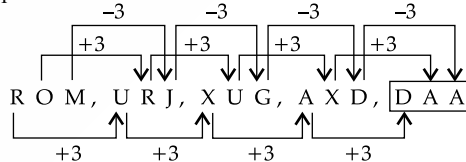
Here, the first letter of the given word is increased by 3, and the second and third letters are increased by 2. Similarly, HOP is written in the same way



Therefore, HOP is written as KQR.

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

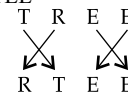
The pattern of the series is as follows:



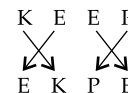
Here, the first letter is increased by 3, the second letter is increased by 3, and the third letter is decreased by 3. Therefore, DAA will complete the series.

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

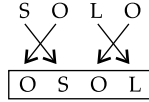
Given that: TREE : RTEE



Here, the first two letters are interchanged with each other and the remaining two letters are interchanged with each other. And, KEEP : EKPE



Similarly, SOLO is written in the same way



Therefore, SOLO is written as OSOL.

36. Option (4) is correct.

Given set: (3, 6, 18)

$3 \times 6 = 18$  (1<sup>st</sup> number  $\times$  2<sup>nd</sup> number = 3<sup>rd</sup> number)

And, (5, 7, 35)

$5 \times 7 = 35$

Similarly, option (4) (6, 14, 84)

$6 \times 14 = 84$

Hence, option (4) is the correct answer.

37. Option (4) is correct.

Given that:

Here we go west is coded as 8 6 4 9

West and east best is coded as 4 @ # pr

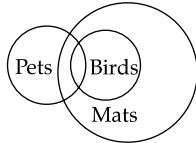
East direction sun is coded as # jtqm

Here, west - 4, east - #, direction - qm, sun - jt, and so on.

Therefore, the code for direction east will be # qm.

38. Option (1) is correct.

The venn diagram of the given statements is as follows:



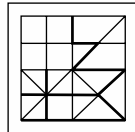
From conclusion I: All mats are birds is false.

From conclusion II: Some mats are pets is true.

Therefore, only conclusion II follows.

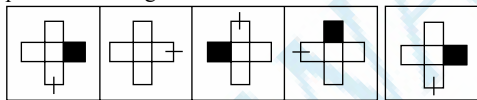
39. Option (2) is correct.

The option figure (2) in which the embedded figure is as follows:



40. Option (4) is correct.

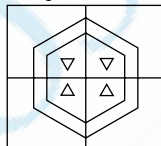
The pattern of the figure series is as follows:



Here, moves clockwise and moves anticlockwise.

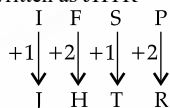
41. Option (1) is correct.

Option figure (1) will complete the series.



42. Option (2) is correct.

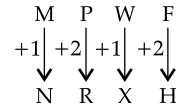
Given that: IFSP is written as JHTR



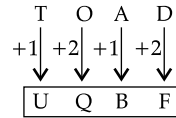
Here, the first and third letters of the given word are increased

by 1 and the second and fourth letters are increased by 2.

And, MPWF is written as NRXH



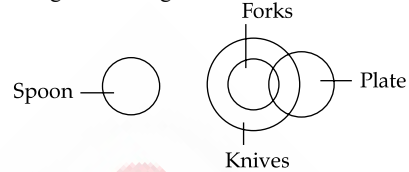
Similarly, TOAD is written in the same way



Therefore, TOAD will be written as UQBF.

43. Option (1) is correct.

The venn diagram of the given statements is as follows:



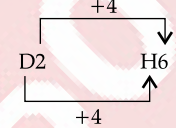
From conclusion I: Some plates are knives is a possibility is true.

From conclusion II: No spoon is a fork is false.

Therefore, only conclusion I follows.

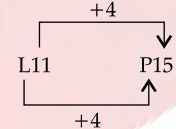
44. Option (2) is correct.

Given that: D 2 is related to H 6

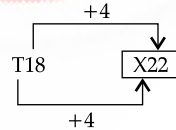


Here, the first letter is increased by 4 and the second number is also increased by 4.

And, L 11 is related to P 15



Similarly, T 18 is related in the same way



Therefore, T 18 is related to X 22.

45. Option (3) is correct.

Given expression:  $9 + 3 - 4 \div 5 \times 2 = 9$

Upon checking option (3) and interchanging sign, we get:

$9 \div 3 - 4 + 5 \times 2 = 9$

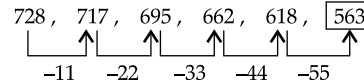
$\Rightarrow 3 - 4 + 10 = 9$

$\Rightarrow 9 = 9$

LHS = RHS

46. Option (3) is correct.

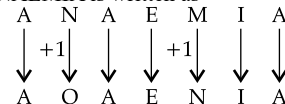
The pattern of the series is as follows:



Therefore, 563 will complete the series. Hence, option (3) is the correct answer.

47. Option (3) is correct.

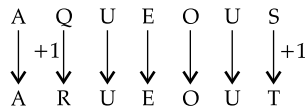
Given that: ANAEMIA is written as



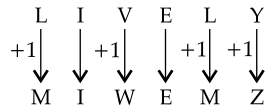
Here, all vowels remains same and the consonants are increased by 1.



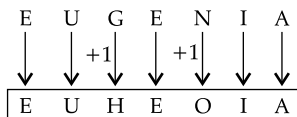
AQUEOUS is written as ARUEOUT



And, LIVELY is written as MIWEMZ



Similarly, EUGENIA is written in the same way



Therefore, EUGENIA will be written as EUHEOIA.

48. Option (1) is correct.

Given that: POR is coded as 52

$$P + O + R + 3$$

$$16 + 15 + 18 + 3 = 52$$

Here, positional values of the alphabets are added then 3 is added to the resultant number.

And, AND is coded as 22

$$A + N + D + 3$$

$$1 + 14 + 4 + 3 = 22$$

Similarly, VXB is coded in the same way

$$V + X + B + 3$$

$$22 + 24 + 2 + 3 = 51$$

Therefore, VXB is coded as 51.

49. Option (2) is correct.

Given that: 12 : 20

$$12 \times 2 = 24 - 4 = 20$$

Here, the first number is multiplied by 2 and then 4 is subtracted to get the second number.

And, 8 : 12

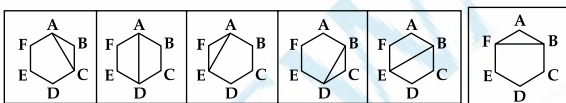
$$8 \times 2 = 16 - 4 = 12$$

Similarly, 34 : ?

$$34 \times 2 = 68 - 4 = 64$$

50. Option (1) is correct.

The pattern of the figure series is as follows:



Here, in the first, second, third figures, the line is connected to AC, AD, AE respectively. In the fourth and fifth figures, the line is connected to BD and BE respectively. Similarly, in the sixth figure, the line should be connected to the BF. Therefore, the option figure (1) will complete the figure.

51. Option (4) is correct.

$$\text{Profit \%} = \left( \frac{\text{Profit}}{\text{CP}} \right) \times 100$$

$$\Rightarrow 40 = \left( \frac{880}{\text{CP}} \right) \times 100$$

$$\Rightarrow \text{CP} = \left( \frac{880}{40} \right) \times 100$$

$$\Rightarrow \text{CP} = ₹ 2200$$

52. Option (2) is correct.

Let the speed of the train be S

$$\text{Speed} = \left( \frac{\text{Distance}}{\text{time}} \right)$$

$$\Rightarrow S = \frac{1200 + 900}{70}$$

$$\Rightarrow S = \frac{2100}{70} = \frac{30 \text{ m}}{\text{s}}$$

$$\Rightarrow S = 30 \times \left( \frac{18}{5} \right) \left( \frac{\text{km}}{\text{hour}} \right) = 108 \left( \frac{\text{km}}{\text{h}} \right)$$

53. Option (4) is correct.

For 1 Year Compound interest (CI) and Simple Interest (SI)

$$\text{SI} = \frac{P \times R \times T}{100} = \frac{(12000 \times 1 \times 15)}{100}$$

$$\text{SI} = ₹ 1800$$

CI when compounded half yearly

$$\text{CI} = P \left( 1 + \frac{R}{100} \right)^{2n} - P$$

$$= 12000 \left( 1 + \frac{15}{200} \right)^2 - 12000$$

$$= 12000 \times \left( \frac{43}{40} \right) \times \left( \frac{43}{40} \right) - 12000$$

$$= \frac{12000(43 \times 43 - 40 \times 40)}{40 \times 40}$$

$$= \frac{12000}{1600} \times 83 \times 3 = ₹ 1867.5$$

$$\text{Difference in interest} = 1867.5 - 1800 = ₹ 67.5$$

54. Option (3) is correct.

Let the speed of the train = S

$$S = \frac{D}{T}$$

According to question:

$$S = \frac{480 \text{ m}}{16 \text{ s}} = \frac{30 \text{ m}}{\text{s}}$$

Now length of the platform = 900m

$$T = \frac{[(900 + 480) \text{ m}]}{\frac{30 \text{ m}}{\text{s}}}$$

$$\Rightarrow T = \frac{1380}{30} \text{ s} = 46 \text{ seconds}$$

55. Option (3) is correct.

Given ratio is 2:3:5

Hence, 2 + 3 + 5 = 10 units

and 10 units = ₹ 1000

hence, 1 unit = ₹ 100

Hence, value of smallest part, i.e. = 2 unit = 2 × 100 = ₹ 200

56. Option (4) is correct.

In n minutes Ishita can read a newspaper

In 1 minute Ishita will read =  $\left( \frac{7}{n} \right)$  th part of newspaper

In 7 minute Ishita will read =  $\left(\frac{7}{n}\right)$ th part of newspaper

Hence,  $\left(\frac{7}{n}\right)$  is the final answer.

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

Let the first number be  $x$

Let the second number be  $y$

According to question:

$$x = 4y$$

$$\frac{x+y}{2} = 65$$

...(1)

...(2)

Put the value of  $x$  from eq(1) and eq(2)

$$4y + y = 65 \times 2$$

$$\Rightarrow 5y = 130$$

$$\Rightarrow y = \left(\frac{130}{5}\right) \Rightarrow y = 26$$

Hence, the second number is 26.

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

$$P = (5 \div 6) \text{ of } 54 - 40 \div 10 - 41 - 22$$

Using BODMAS rule, we get

$$P = \left(\frac{5}{6}\right) \times (54) - (4) - 41 - 22$$

$$= 5 \times 9 - 4 - 41 - 22$$

$$= 45 - 4 - 41 - 22$$

$$= 45 - 67 \Rightarrow P = -22$$

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

$$\text{Area of Triangle} = \left(\frac{1}{2}\right) \times \text{base} \times \text{height}$$

$$\Rightarrow 144 \text{ cm}^2 = \left(\frac{1}{2}\right) \times 16 \text{ cm} \times \text{height}$$

$$\Rightarrow \text{height} = \frac{144 \times 2}{16} = 18 \text{ cm}$$

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

$$\text{Average speed} = \frac{\text{Total distance travelled}}{\text{Total time taken}}$$

$$D = S \times T$$

Distance travelled during the first 2 hours

$$= 2 \text{ h} \times \frac{35 \text{ km}}{\text{hour}}$$

$$= 70 \text{ km}$$

Distance travelled during the first 4 hours

$$= 4 \text{ h} \times \frac{50 \text{ km}}{\text{hour}}$$

$$= 200 \text{ km}$$

Hence,

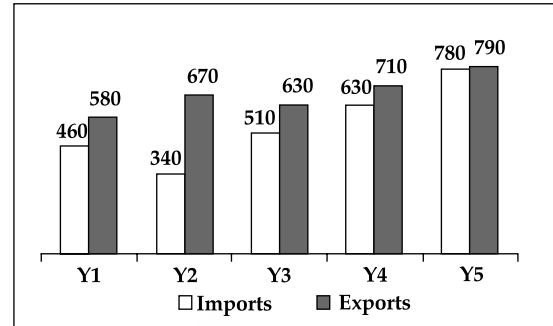
$$\text{Average speed} = \frac{\text{Total distance travelled}}{\text{Total time taken}}$$

$$= \frac{(200 + 70) \text{ km}}{(2 + 4) \text{ h}}$$

$$= \frac{270}{6} \left(\frac{\text{km}}{\text{hour}}\right)$$

$$= \frac{45 \text{ km}}{\text{hour}}$$

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



$$\text{Total export} = 580 + 670 + 630 + 710 + 790 = 3380$$

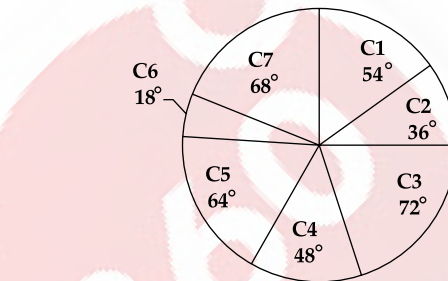
$$\text{Total import} = 460 + 340 + 510 + 630 + 780 = 2720$$

$$\text{Difference between export and import} = 3380 - 2720 = 660$$

Since each data is multiple of ₹ 1000

$$\text{Hence, the difference} = 660 \times 1000 = ₹ 6,60,000$$

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



$$c_4 = 48^\circ, c_6 = 18^\circ$$

$$\text{Total} = c_4 = 360^\circ$$

$$\% \text{ Difference} = \frac{48^\circ - 18^\circ}{360^\circ}$$

$$= \frac{3000}{360^\circ} = 8.33\%$$

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

Let the SP of each article = ₹  $x$

$$\text{CP of 1st article} = \frac{x \times 100}{120} = \left(\frac{5}{6}\right)x$$

$$\text{CP of 2nd article} = \frac{x \times 100}{80} = \left(\frac{5}{4}\right)x$$

$$\begin{aligned} \text{Total CP of 2nd article} &= \left(\frac{5}{6}\right)x + \left(\frac{5}{4}\right)x = \left(\frac{50}{24}\right)x \\ &= \left(\frac{25}{12}\right)x \end{aligned}$$

$$\text{Overall Loss\%} = \frac{\text{CP} - \text{SP}}{\text{CP}} \times 100$$

$$= \frac{\left[\left(\frac{25}{12}\right)x - 2x\right]}{\left(\frac{25}{12}\right)x} \times 100$$

$$= \frac{[25x - 24x]}{\left[\left(\frac{25}{12}\right)x \times 12\right]} \times 100$$

$$= \left(\frac{x}{2x}\right) \times 100 = 4\%$$

64. Option (2) is correct.

Subject	Maths	Physics	Chemistry
A	12	22	14
B	15	21	15
C	3	15	22
D	14	24	1
E	18	13	2

Rank scored by A in Physics = 22  
 Rank scored by A in Maths = 12  
 Hence, Positive difference between the ranks secured by A in Physics and in maths = 22 - 12 = 10

65. Option (3) is correct.

**Explanation:**

Difference between compound interest and simple interest for

$$2 \text{ years} = P \left( \frac{R}{100} \right)^2$$

$$\Rightarrow ₹172.80 = 12000 \left( \frac{R}{100} \right)^2$$

$$\Rightarrow \frac{₹172.80 \times 100 \times 100}{1200} = R^2$$

$$\Rightarrow \frac{₹172800}{1200} = R^2$$

$$\Rightarrow ₹144 = R^2$$

$$\Rightarrow \sqrt{144} = R \Rightarrow R = 12\%$$

66. Option (4) is correct.

**Explanation:**

$$\left( \frac{5}{12} \right) \times \left( \frac{7}{12} \right) \div \left[ \left( \frac{1}{75} \right) + \left( \frac{5}{12} \right) \times \frac{36}{25} + \left( \frac{4}{5} \right) \times \left( \frac{75}{16} \right) \right]$$

Using BODMAS rule, we get

$$\left( \frac{5}{12} \right) \times \left( \frac{7}{12} \right) \div \left[ \left( \frac{1}{75} \right) + \left( \frac{5}{12} \right) \times \frac{36}{25} + \left( \frac{4}{5} \right) \times \left( \frac{75}{16} \right) \right]$$

$$= \left( \frac{5}{12} \right) \times \left( \frac{7}{12} \right) \div \left[ \left( \frac{1}{75} \right) + \left( \frac{3}{5} \right) + \left( \frac{15}{4} \right) \right]$$

$$= \left( \frac{5}{12} \right) \times \left( \frac{7}{12} \right) \div \left[ \frac{1+45}{75} + \left( \frac{15}{4} \right) \right]$$

$$= \left( \frac{5}{12} \right) \times \left( \frac{7}{12} \right) \times \left[ \frac{75}{46} + \left( \frac{15}{4} \right) \right]$$

$$= \frac{2625 + 24840}{6624} = \frac{27465}{6624} = \frac{9155}{2208}$$

67. Option (1) is correct.

**Explanation:**

Rate of increase = 10%

Present population = 12000

Hence, Population after 3 years

$$= \left( \frac{110}{100} \right) \times \left( \frac{110}{100} \right) \times \left( \frac{110}{100} \right) \times 1200$$

$$= 1331 \times 12 = 15,972$$

68. Option (3) is correct.

**Explanation:**

$$16 : x :: x : 196$$

$$\Rightarrow \left( \frac{16}{x} \right) = \left( \frac{x}{196} \right)$$

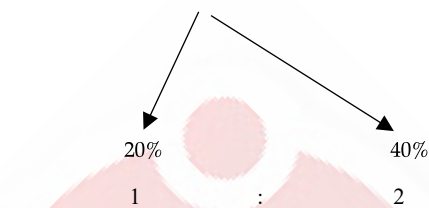
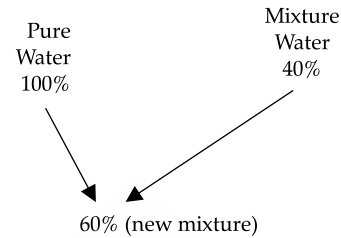
$$\Rightarrow x^2 = 16 \times 196$$

$$\Rightarrow x = \sqrt{(16 \times 196)}$$

$$\Rightarrow x = 4 \times 14 = 56$$

69. Option (3) is correct.

**Explanation:**



Therefore, 40 litres of water is added to the mixture.

70. Option (2) is correct.

**Explanation:**

$$\begin{aligned} \text{Volume of cuboid} &= \text{Length} \times \text{breadth} \times \text{height} \\ &= 40 \text{ cm} \times 20 \text{ cm} \times 10 \text{ cm} \\ &= 8000 \text{ cm}^3 \end{aligned}$$

71. Option (4) is correct.

**Explanation:**

Let CP be 100 units

Hence, MP will be = 130 units

SP of 1 article at 20% discount

$$= 130 \times \left( \frac{80}{100} \right) = 104 \text{ units}$$

SP of 1 article at 10% discount

$$= 130 \times \left( \frac{90}{100} \right) = 117 \text{ units}$$

Total CP = 30 × 100 = 3000 units

Total SP = 15 × (104 + 117) = 3315 unit

Profit = SP - CP = 3315 - 3000 = 315 units

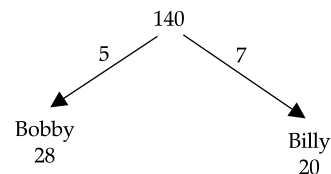
Now, 315 units → ₹ 630

$$1 \text{ unit} \rightarrow \frac{₹ 630}{315} = ₹2$$

Hence, CP of each article = 100 units = 100 × 2 = ₹ 200

72. Option (4) is correct.

**Explanation:**



Total work = 140 unit

Bobby's 1 day work = 5 units

Billy's 1 day work = 7 units

Total work done by Bobby and Billy in 5 days = 5 × 12 = 60 units

Work left =  $140 - 60 = 80$

Rest of the work will be completed by bobby =  $\frac{80}{5} = 16$  days

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

**Explanation:**

$$\left[7 \div 14 \times 8 + (5 \div 15 \times 6 - 4 \times 3)\right]$$

Using BODMAS

$$\Rightarrow \left[7 \div 14 \times 8 + \left(\left(\frac{5}{15}\right) \times 6 - 12\right)\right]$$

$$\Rightarrow \left[7 \div 14 \times 8 + (2 - 12)\right]$$

$$\Rightarrow \left[7 \div 14 \times 8 + (-10)\right]$$

$$\Rightarrow \left[\left(\frac{7}{14}\right) \times 8 - 10\right] + 4 - 10 = -6$$

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

**Explanation:**

$$\text{Volume of the cone} = \left(\frac{1}{3}\right)\pi r^2 h$$

Area of the base of cone =  $\pi r^2$

Now, Volume of cone =  $27720 \text{ cm}^3$

$$\Rightarrow \left(\frac{1}{3}\right)\pi r^2 h = 27720 \text{ cm}^3$$

$$\Rightarrow \pi r^2 = \frac{27720 \times 3}{20}$$

$$\Rightarrow \pi r^2 = 4158 \text{ cm}^2$$

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

**Explanation:**

Let the number of female employee be  $x$

Let the number of male employees be  $y$

According to question:

$$\left(\frac{90}{100}\right)x + y = \left(\frac{92}{100}\right)y + x$$

$$\Rightarrow 90x + 100y = 92y + 100x$$

$$\Rightarrow 100y - 92y = 100x - 90x$$

$$\Rightarrow 8y = 10x$$

$$\Rightarrow x = \left(\frac{4}{5}\right)y$$

Total number of employees = 900

$$x + y = 900$$

$$\text{put } x = \left(\frac{4}{5}\right)y$$

$$\Rightarrow \left(\frac{4}{5}\right)y + y = 900$$

$$\Rightarrow \frac{9y}{5} = 900$$

$$\Rightarrow y = \frac{900 \times 5}{9} = 500$$

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

T. Balasaraswati, in full Thanjavur Balasaraswati, was a dancer and singer who was one of the twentieth century's foremost exponents of the Bharatanatyam style of classical dance. She was instrumental not only in expanding the performance of this dance form beyond the confines of the temples where it was traditionally performed but also in cultivating an international appreciation for the art form.

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

Avani Lekhara, an Indian shooter, was named 'Best Female Debut' at the 2021 Paralympic Awards for her record-breaking gold medal at the Tokyo Games. The 20-year-old from Jaipur won gold in the women's 10m Air Rifle Standing SH1 event earlier this year after suffering a spinal cord injury in a car accident in 2012. She had broken the Paralympic Games record as well as equaling the world record with that special feat. She also took bronze in the 50m Rifle Three Positions Standing SH 1 event, making her the first Indian woman to win two medals at the Games. For her efforts, she received the Major Dhyan Chand Khel Ratna, India's highest sporting honour.

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

The Luni River rises in the Naga hills of the Aravalli Ranges near Pushkar Valley in the district of Ajmer. Sagarmati is another name for it. After passing through Govindgarh, it joins the Sarsuti river, which flows from Pushkar Lake and becomes known as the Luni River. The name is derived from the Sanskrit word Lavanavari, which means 'Salt River' in English. The Luni River is not salty until it reaches Balotra, where the river is influenced by the high salt content of the soil. The river's water is discharged in Rann Kachchh, Gujarat.

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

The small intestine is the most important part of the digestive system because it is where digestion and nutrient absorption take place. In adults, the small intestine is a long, narrow tube about 7 metres (23 feet) long. The large intestine is so named because it is larger in diameter than the small intestine. The small intestine is divided into three major regions: the duodenum, the jejunum, and the ileum.

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

Bhavani Devi was the first Indian athlete to compete in fencing at the 2020 Tokyo Olympics. Devi was born in Chennai, Tamil Nadu, on August 27, 1993. Her father is a temple priest, and her mother works as a housewife. She has been interested in sports since she was ten years old. Devi is not only the first Indian fencer to qualify for the Olympics, but she also has a couple of other firsts to her name. She was the first Indian to win a silver medal in the U23 category at the 2014 Asian Championships in the Philippines, and she also made history by becoming the first Indian to win a gold medal in the sabre event at the senior Commonwealth Fencing Championship in Canberra in 2019.

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

Microfinance is a method of providing small business owners and entrepreneurs in underdeveloped parts of India with loans, credit, insurance, access to savings accounts, and money transfers. Microfinance is a type of financial service that provides small loans and other financial services to low-income households; thus, it is an economic tool designed to promote financial inclusion, allowing low-income households to rise out of poverty, increase their income levels, and improve their overall living standards.

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

A bryophyte is a green, seedless nonvascular plant that belongs to the mosses, liverworts, or hornworts family. Bryophytes are the most basic terrestrial plants. There is a lack of xylem and phloem tissue in Bryophyta. They are devoid of true roots, stems, and leaves. Bryophytes are known as the plant kingdom's amphibians because they live in soil but require water to reproduce sexually. They prefer environments that are moist, humid, and shady. They play an important role in plant succession on bare rocks/soil.

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

In Both Gaya, Gautam Buddha attained enlightenment. It is situated in the state of Bihar. Buddha Purnima commemorates the day Gautam Buddha attained enlightenment. The exact date is determined by Asian lunisolar calendars and is primarily observed during the month of Baisakh. The Buddha instructed his followers to cremate his body in the same manner that a universal monarch's body would be cremated and then to distribute the relics among various groups of his lay followers, who were to enshrine them in hemispherical reliquaries known as stupas.

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

Priyanka Chopra Jonas, a Bollywood actress, wrote a memoir titled 'Unfinished'. With the publication of her first novel, "Unfinished: A Memoir," which she described as "honest, raw, and vulnerable," actor-producer Priyanka Chopra Jonas made her debut as an author. The book is published by Michael Joseph's imprint that covers her 20-year dual-continental career as an actor and producer, as well as her role as a UNICEF Goodwill Ambassador.

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

Assam is known for its fairs and festivals. The majority of the festivals celebrated in Assam exemplify the spirit of accommodation and togetherness in the diverse faith and belief of her people. This perfect fusion of her numerous races' heritage has made Assam the home of the most colourful festivals reflecting the true spirit, tradition, and way of life of the Assamese people. Assam's major festivals include Bihu, Baishagu, Ali-Ai-Ligang, Baikho, Rongker, and Rajini Gabra. Harni Gabra, Bohaggiyo Bishu, Ambubashi Mela, and Jonbill Mela are just a few examples.

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

Matters are generally classified into three states: Particles are held very close together in solid and cannot move. Particles in a liquid are close to each other but can move around. Particles in the gas are far apart compared to those in solid or liquid states, and their movement is easy and fast. Under extreme conditions, two new states are discovered: Plasma is a superheated state in which electrons are ripped from atoms, resulting in an ionised gas. Bose-Einsteinis is a condensate is a group of atoms that has been cooled to absolute zero (-273.15 °C).

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

The Godavari River is the largest peninsular river. This river emerges from the slopes of the western ghats in the Maharashtra district of Nasik. Among the peninsular rivers, it has the largest drainage basin. The basin includes Maharashtra, Madhya Pradesh, Odisha, and Andhra Pradesh, and it drains into the Bay of Bengal. The river Godavari is fed by several tributaries, including the Purna, Wardha, Manjra, and Penang. Because of their length and the areas they cover, these tributaries are known as the Dakshin Ganga.

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

One of the many types of unemployment is seasonal unemployment. Seasonal unemployment is caused by seasonal variations in demand for goods and services. In any economy, there will be times of the year when demand for goods and services is lower than usual. Seasonal unemployment is a type of unemployment that occurs in rural areas when people are unable to find work during certain months of the year.

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

Vasco Da Gama, a Portuguese explorer, discovered the sea route from Portugal to India and arrived in Calicut in 1498. He was Portuguese, and the discovery of the sea route was critical as the Ottomans occupied Constantinople (modern-day Istanbul) and halted trade via the land route. Vasco da

Gama's fleet arrived on the Malabar Coast at Kappadu, near Kozhikode (Calicut) (present-day Kerala state of India). Samudiri was the King of Calicut at the time (Zamorin).

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

During the British Raj, Badruddin Tyabji was an Indian political activist. He was a member of the Indian National Congress from its inception. He was the Indian National Congress's first Muslim President. From 1887 to 1888, he was the third President of the Indian National Congress. In 1887, he addressed Congress as President in Madras. "This Congress is composed of representatives, not of any one class or community in India, but of all the different communities in India," he said. In April 1867, he was admitted as a Barrister.

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

Dabang Delhi won their first title by defeating Patna Pirates 37-36 in the VIVO Pro Kabaddi Season 8 final. Naveen Kumar was named Season 8's Most Valuable Player (207 raid points in 17 matches). Pawan Sehrawat was named the season's top raider (304 raid points from 24 matches). Mohit Goyat of the Puneri Paltan team was named the season's new young player.

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

Hydroponics is a subset of hydroculture, which is the method of growing plants without soil by using mineral nutrient solutions in water. Plants have long been grown with their roots immersed in water and fertiliser solutions to conduct scientific studies on their nutrition. The solution is made up of various fertilizer-grade chemical compounds that contain varying amounts of Nitrogen, Phosphorus, and Potassium—the three major elements required for plant growth. The concentration of the solution and the frequency of pumping increase as the plants grow.

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

Articles 23 and 24 of the Indian Constitution guarantee human dignity and protect people from any form of exploitation. As a result, the principles of human dignity and liberty upon which the Indian Constitution is founded are upheld. Article 23 makes human trafficking, as well as any other form of forced labour, illegal. It also states that any violation of this provision is a crime punishable by law.

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

The caves were carved out of solid rock and divided into two sections: the hall of worship or chaitya and the monastery or vihara. The Barabar caves in Bihar, built under Emperor Ashoka in the third century BCE, are the oldest example of rock-cut architecture. A Chaitya is a Buddhist shrine or prayer hall with a stupa at one end for monks to worship in congregation. Ajanta, Ellora, Bhaja, Karle, Bagh, Nasik, and Kanheri are among the most beautiful Chaitya caves. Buddhist monks lived in viharas, also known as monasteries. Buddhist viharas of note include those at Ajanta, Ellora, Nasik, Karle, Kanheri, Bagh, and Badami.

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

According to the 2011 census, India's total fertility rate was 2.4, with the government aiming to reduce it to 2.1. A population's total fertility rate is the average number of children born to a woman during her lifetime. According to the fifth round of the National Family Health Survey (NFHS-5), the country's total fertility rate has decreased from 2.2 to 2.0. This represents a significant advancement in population control measures. At the national level, the total fertility rate (TFR), defined as the average number of children per woman, fell from 2.2 to 2.0 between NFHS-4 and 5.

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

Anoushka Shankar is a British-American musician and sitarist. She was the youngest and first woman to receive a

British House of Commons Shield; she was nominated for nine Grammy Awards and was the first musician of Indian origin to perform live and serve as a presenter at the ceremony.

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

In India, the President is elected for a five-year term. Article 56 (1) of the Indian Constitution provides for this. The President of India is the formal head of the country's executive, legislative, and judicial branches. He is India's first citizen (Article 53). The concept of the President comes from England. He is the supreme commander of the Indian Armed Forces. The President is elected by a Single Electoral College composed of elected members of both Houses of Parliament and elected members of the Legislative Assemblies of all states, as well as the National Capital Territory of Delhi and the Union Territory of Puducherry.

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

Mohiniattam, also known as Mohiniyattam, is an Indian classical dance form that originated in Kerala. It is one of the state's two most popular dance forms, the other being

Kathakali. It is a graceful form of dance meant to be performed by women as solo recitals. It is thought to have started in the 16<sup>th</sup> century. It is one of the Sangeet Natak Akademi's eight recognised Indian classical dance forms.

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

Rajaraja Chola I built Thanjavur's, Brihadeshwara Temple. The temple is one of India's largest Hindu temples. During his reign, the texts of the Tamil poets 'Sambandar, Sundarar, Appar' were collected and edited into one vital compilation named 'Thirumurai'. His reign lasted from 985 to 1014 AD.

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

On March 8, 2021, the Odisha government announced the establishment of District Investment Promotion Agencies (DIPA) in 30 districts to promote and facilitate investment across the state. The DIPAs will function as an extension of the Odisha Industrial Promotion and Investment Corporation (IPICOL). It will be built in stages from April to December 2021.

OSWAAL

