## Adda 247

## SSC MTS 2023 Memory Based Paper (Based on 1st Sep 2023 Exam)

1. Find the value of $x$
$\frac{\sqrt{1296}}{x}=\frac{x}{2.25}$
(a) 8
(b) 9
(c) 15
(d) 4
2. $A, B$ and $C$ can together complete a piece of work in 10 days. A and B together can do it in 15 days then in how many days C will finish the work.
(a) 20
(b) 15
(c) 40
(d) 30
3. Which of the following is divisible by 3 .
(a) 7345932
(b) 5439763
(c) 3642589
(d) 3262735
4. H.C.F of three numbers is 12 if they are in the ratio $1: 2$ : 3 the number are
(a) $12,24,36$
(b) $10,20,30$
(c) $5,10,15$
(d) $4,8,12$
5. A boat goes 40 km upstream in 8 hours and 36 km downstream in 6 hours. The speed of the boat in standing water is-
(a) $6.5 \mathrm{~km} / \mathrm{hr}$
(b) $6 \mathrm{~km} / \mathrm{hr}$
(c) $5.25 \mathrm{~km} / \mathrm{h}$
(d) $5.5 \mathrm{~km} / \mathrm{hr}$
6. A cylinder and a cone have the same height and the same radius as that of their base. Find the ratio of the volume of the cone to the volume of the cylinder is
(a) $3: 2$
(b) $1: 3$
(c) $3: 1$
(d) $2: 3$
7. To gain $25 \%$, after announcing a discount of $10 \%$ the shopkeeper must mark up the price of the article with cost price Rs. 360 as:
(a) Rs. 500
(b) Rs. 486
(c) Rs. 450
(d) Rs. 460
8. What will be the compound interest (in Rs.) on a sum of Rs. 25,000 after 3 years at a rate of $12 \%$ per annum compound annually?
(a) 1,048.20
(b) 900.30
(c) 9,720
(d) $10,123.20$
9. The arithmetic mean of $x$ observation is m. If two observations 0 and $m$ are added, then the new mean will be :
(a) $\frac{m x}{m+1}$
(b) $\frac{m}{x+1}$
(c) m
(d) $\frac{m(x+1)}{x+2}$
10. Tap A can fill a tank in 6 h , whereas Tap B can fill it in 8 h . Tap C can empty the same tank in 4 h. If all the taps are opened together, how long will it take to fill the tank?
(a) 20 h
(b) 22 h
(c) 26 h
(d) 24 h
11. A person invested $\frac{2}{3} \frac{2}{3}$ of the capital at the rate of $6 \%, \frac{1}{5}$ th at the rate of $10 \%$, and the remaining at the rate of $15 \%$. If his gets Rs. 6,00 as his total interest. Find its capital.
(a) 4,500
(b) 5,000
(c) 2,500
(d) 7500
12. If $x: y=4: 3$, then the value of $x^{3}-y^{3}: x^{3}+y^{3}$
(a) $36: 91$
(b) $38: 91$
(c) $39: 91$
(d) $37: 91$
13. Ram and Shyam walk from a place at the speeds of $6 \mathrm{~km} / \mathrm{h}$ and $8 \mathrm{~km} / \mathrm{h}$ respectively. Ram takes 40 min more than the Shyam to cover the same distance. Find the distance.
(a) 16 km
(b) 20 km
(c) 25 km
(d) 40 km
14. If the radius of circle is decreased by $35 \%$, then its area decreases by:
(a) $56 \frac{3}{4} \%$
(b) $57 \frac{2}{4} \%$
(c) $57 \frac{1}{4} \%$
(d) $57 \frac{3}{4} \%$
15. Salim bought an article for Rs. 784 which included GST of $12 \%$. What was the price of the article before GST was added?
(a) 650
(b) 700
(c) 800
(d) 1000
16. Find the value of -
$\sqrt{150}-\sqrt{54}-\sqrt{24}$
(a) 1
(b) 72
(c) 0
(d) 75
17. 85 L of mixture contains milk and water in the ratio 27 : 7. How much more water should be added to get a new mixture containing milk and water in the ratio $3: 1$ ?
(a) 8 L
(b) 5 L
(c) 15 L
(d) 13 L
18. The given pie-chart shows the distribution of the five different types of rice (A, B, C, D and E) sold by a company (in Kg )

Total Rice (in Kg) $=3240$


In the given pie-chart the number of kg of rice of type C is what percentage less than the total number of kg of rice of type D and E? (Your answer should be correct to two decimal place.)
(a) 23.20\%
(b) $24.32 \%$
(c) $24.31 \%$
(d) $24.34 \%$
19. The given pie-chart shows the distribution of the five different types of rice (A, B, C, D and E) sold by a company (in Kg )

$$
\text { Total Rice(in Kg) = } 3240
$$



In the given pie-chart 42 kg of rice of type $B$ and 39 kg of rice of type $A$ is in damage condition then find what is the ratio of the remaining rice of type $A$ to type $B$.
(a) $23: 20$
(b) $24: 32$
(c) 23:40
(d) $24: 40$
20. The given pie-chart shows the distribution of the five different types of rice (A, B, C, D and E) sold by a company (in Kg )

$$
\text { Total Rice (in Kg) = } 3240
$$



In the given pie-chart difference of rice of type E and type $C$ is what percentage more than the sum of rice of type $A$ and type D. (Your answer should be correct to two decimal place.)
(a) $94.48 \%$
(b) $93.20 \%$
(c) $92.40 \%$
(d) $96.48 \%$
21. Read the given statements and conclusion carefully. Assuming that the information given in the statement is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion logically follow from the statements.

## Statements:

All Apples are Animals
All Animals are Birds

## Conclusions:

I. Some birds are Apples.
II. All Birds are Animals
III. Some Animals are apples
IV. All animals are apples
(a) both conclusion II and IV follow.
(b) Both conclusion I and III follow.
(c) Both conclusion I and II follow.
(d) Only conclusion I follow.
22. The triangle 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?

(a)

(b)

(c)

(d)

23. Select the number from among the given options that can replace the question mark(?) in the following series.
$28,39,55,77,106$, ?
(a) 143
(b) 157
(c) 131
(d) 149
24. Select the option that is related to the third number in the same way as the second number is related to the first number.
13: 65 :: 19: ?
(a) 121
(b) 210
(c) 152
(d) 201
25. Select the correct option that indicates the arrangement of the given words in the order in which they appear in an English dictionary.

1. Affection
2. Appeal
3. Arid
4. Antic
5. Attire
6. Accumulate
(a) $6,2,3,5,1,4$
(b) $6,1,4,2,3,5$
(c) $6,1,4,3,2,5$
(d) $6,1,4,5,2,3$
7. Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the letter-cluster that is different.
(a) AVRL
(b) C Y U Q
(c) T P L H
(d) F B X T
8. Select the option figure that is embedded in the given figure.


(b)

(d)

9. Select the correct mirror image of the given combination when the mirror is placed to ' PQ ' as shown.

(a) HTAGAHG
(b) HTAYALH
(c) B HARATH
(d) HTARATG
10. There of the following four words are alike in a certain way and one is different. Pick the odd one out.
(a) Dispur
(b) Thiruvananthapuram
(c) Kerala
(d) Amaravati
11. Select the option that is related to the third word in the same way as the second word is related to the first word. Insomnia: Sleep :: Depression: ?
(a) Mood
(b) Night
(c) Thinking
(d) Dream
12. Select the correct combination of mathematical signs that can sequentially replace the signs balance the given equations.
$65 * 5 * 45 * 2 * 30 * 73$
(a) $\div, x,+,-,=$
(b) $+, \div, x,=,-$
(c) $\div,+, x,=,-$
(d) $\div,+, \times,-,=$
13. Read the given statements and conclusion carefully. Assuming that the information given in the statement is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion logically follow from the statements.

## Statement:

All teachers are students.
No Students is Principal.
All Engineers are teachers.
Conclusion:
I. No Engineer is Principal.
II. Some Student are Engineers.
III. No teacher is a Principal.
(a) All the conclusion follows.
(b) Only conclusion I and II follow.
(c) Only conclusion III and II follow.
(d) Only conclusion II follow.
33. Select the option in which the number one related in the same way as are the numbers of the following set.
$(35,14,441)$
(a) $(34,25,81)$
(b) $(24,25,35)$
(c) $(21,45,441)$
(d) $(95,101,49)$
34. In a certain code language, ELEPHANT is written as DKDOIBOU. How will MONKEY be written in that language?
(a) LLNMFZ
(b) LNLMFZ
(c) LNMLZF
(d) LNMLFZ
35. Choose the correct alternative that will continue the same pattern and replace the question mark (?)
RE: 23 :: ST :?
(a) 90
(b) 39
(c) 59
(d) 62
36. Pointing to Harbhajan, Sonakshi says, "He is the paternal grandfather of my eldest son Mukesh". How is Harbhajan related to Sonakshi?
(a) Father
(b) Uncle
(c) Brother - in - law
(d) Father - in - law
37. Which one set of letters when sequentially placed at the gaps in sequentially placed at the gaps in the given letter series shall complete it?
G_JG_IJGGI_GG_JG
(a) IGJI
(b) GIGI
(c) IGIJ
(d) GJGJ
38. There are five students ( $P, Q, R, S$ and $T$ ) in a class having different weights. More than two student's weight is less than S. P is heavier than at least two students. P is not heaviest among all. Only one student is between $Q$ and $P$. $Q$ is not weakest or heaviest among all. If R's weight is smallest, then find how many students are heavier than T?
(a) One
(b) Two
(c) Three
(d) Four
39. $P, Q, R, S$ and $T$ are standing in a row facing north direction. $S$ sits third right of R.Q sits right of $P$ and left of $T$ respectively. $S$ Sits at the end of row. What is the position of T with respect to P ?
(a) Third to the left
(b) second to the right
(c) third to the right
(d) second to the left
40. In the following question, from the given alternative words, select the word which cannot be formed using the letters of the given word.
ELECTROMAGNETIC
(a) ELECTRIC
(b) MAGNET
(c) MAGNETIC
(d) TELEDRUM
41. Which articles in the Indian Constitution pertain to freedom of religion?
(a) Article 25-28
(b) Article 21-24
(c) Article 14-17
(d) Article 19-22
42. The landmark Charminar can be found in which Indian city?
(a) Hyderabad
(b) Delhi
(c) Kolkata
(d) Mumbai
43. In what year was the Right to Information Act enacted?
(a) 2004
(b) 2002
(c) 2005
(d) 2007
44. What is the subject of Article 44 in the Indian Constitution?
(a) Right to Property
(b) Secularism
(c) Uniform Civil Code
(d) Sovereignty
45. The functions and duties of which office are described in Article 149 of the Indian Constitution?
(a) Finance Commission
(b) Preamble
(c) Comptroller and Auditor General of India
(d) Fundamental Duties
46. The Narikurava communities are a Scheduled Tribe in which Indian state?
(a) Karnataka
(b) Tamil Nadu
(c) Andhra Pradesh
(d) Kerala
47. Which cities does the Golden Quadrilateral highway network connect?
(a) Delhi, Mumbai, Kolkata, Chennai
(b) Uttar Pradesh, Gujarat, Madhya Pradesh, Bihar
(c) Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu
(d) Rajasthan, Haryana, Punjab, Himachal Pradesh
48. How many runs has Virat Kohli scored in the T20 IPL till October 2022?
(a) 7263 runs
(b) 6617 runs
(c) 6211 runs
(d) 7105 runs
49. Which gate of the Red Fort did Jawahar Lal Nehru first hoist the Indian National Flag in 1947?
(a) Lahore Gate
(b) Delhi Gate
(c) Water Gate
(d) Ajmeri Gate
50. Who penned the book titled " Cracking the Code: My Journey in Bollywood"?
(a) Shah Rukh Khan
(b) Karan Johar
(c) Amitabh Bachchan
(d) Ayushmann Khurrana
51. Which dance form is Shovana Narayan associated with?
(a) Bharatanatyam
(b) Kathak
(c) Odissi
(d) Salsa
52. Mandarin is primarily spoken by people from which country?
(a) Japan
(b) China
(c) South Korea
(d) Vietnam
53. What is the alternate name for the river Tsangpo in Tibet?
(a) Yamuna
(b) Brahmaputra
(c) Ganges
(d) Indus
54. In which state is the Bhitargaon brick temple located?
(a) Uttar Pradesh
(b) Madhya Pradesh
(c) Rajasthan
(d) Odisha
55. What distinguishes a credit card from a debit card?
(a) Credit cards allow you to spend your own money
(b) Debit cards offer lines of credit
(c) Credit cards offer lines of credit
(d) Debit and credit cards function the same way
56. The Neil River discharges water into which ocean?
(a) Atlantic Ocean
(b) Pacific Ocean
(c) Arctic Ocean
(d) Mediterranean Sea
57. As of 2023, which pair of singers has received the Bharat Ratna?
(a) Bhimsen Joshi \& Ravi Shankar
(b) Lata Mangeshkar \& Kishore Kumar
(c) Asha Bhosle \& Sonu Nigam
(d) A.R. Rahman \& K. J. Yesudas
58. Which of the following terms is not related to swimming?
(a) Free Style
(b) Butterfly Stroke
(c) Backstroke
(d) Penalty Corner
59. The dance form Yakshagana is native to which Indian state?
(a) Tamil Nadu
(b) Karnataka
(c) Kerala
(d) Odisha
60. Who is credited with the discovery of nerve cells?
(a) Robert Hooke
(b) Santiago Ramón y Cajal
(c) Charles Darwin
(d) Albert Einstein
61. Nuakhai festival is celebrated in which Indian state?
(a) West Bengal
(b) Odisha
(c) Karnataka
(d) Gujarat
62. Yamini Krishnamurthy is best known for her contributions to which form of dance?
(a) Kathak
(b) Odissi
(c) Bharatanatyam
(d) Kuchipudi
63. Which country hosted the 2011 ICC Cricket World Cup?
(a) Australia
(b) England
(c) Sri Lanka, India, and Bangladesh
(d) South Africa
64. According to the 2011 census, which Indian state recorded the lowest literacy rate?
(a) Kerala
(b) Goa
(c) Bihar
(d) Tamil Nadu
65. What is the title of the autobiography written by Sachin Tendulkar?
(a) The Test of My Life
(b) Playing It My Way
(c) Wings of Fire
(d) Open

Directions (66-70): In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

There once was a poor boy who $\qquad$ (1) his days going door-to-door selling newspapers to pay for school. One day, as he was walking his route, he started feeling low and weak. The poor boy was $\qquad$ (2) so he decided to ask for food when he came to the next door.
The poor boy asked for food but was $\qquad$ (3) every time, until he reached the door of a girl. He asked for a glass of water, but seeing his poor state, the girl came back with a glass of milk. The boy asked how much he owed her for the milk, but she refused payment.
Years $\qquad$ (4) the girl, who was now a grown woman, fell sick. She went from doctor to doctor, but no one was able to cure her. Finally, she went to the best doctor in town.
The doctor spent months treating her until she was finally cured. Despite her happiness, she was $\qquad$ (5) she couldn't afford to pay the bill. But, when the hospital handed her the bill, it read, 'Paid in full, with a glass of milk.'
66. Select the most appropriate option for blank no. 1.
(a) Spent
(b) Save
(c) Worked
(d) Live
67. Select the most appropriate option for blank no. 2.
(a) Unfit
(b) Weak
(c) Undernourished
(d) Starving
68. Select the most appropriate option for blank no. 3.
(a) Insulted
(b) Denied
(c) Refuse
(d) Beaten
69. Select the most appropriate option for blank no. 4.
(a) After
(b) When
(c) Then
(d) Later
70. Select the most appropriate option for blank no. 5.
(a) Confident
(b) Excited
(c) Afraid
(d) Calm
71. Select the most appropriate antonym of the given word.
Feud
(a) Dispute
(b) Enmity
(c) Harmony
(d) Conflict
72. Select the most appropriate meaning of the given idiom.
Call a spade a spade
(a) To sugarcoat things to gain advantage
(b) To memorize people's names
(c) To speak clearly and directly
(d) To call things with wrong names
73. Select the most appropriate synonym of the given word.
Facilitate
(a) Impede
(b) Demolish
(c) Deprive
(d) Assist
74. Identify the segment in the given sentence which contains the grammatical error.
She do her homework diligently every evening.
(a) her homework
(b) She do
(c) diligently every
(d) No error
75. Select the most appropriate option to fill in the blank in the given sentence.
The company's decision to $\qquad$ its employees was met with resistance and anger from the workforce.
(a) Lay off
(b) Take on
(c) Promote
(d) Demote
76. Select the option that is the passive form of the given sentence.
Rakesh is building a house.
(a) A house is being built by Rakesh.
(b) A house being build by Rakesh.
(c) A house was being built by Rakesh.
(d) A house was been built by Rakesh.
77. Select the word which means the same as the group of words given.
A person who compiles dictionaries
(a) Lexicographer
(b) Cryptographer
(c) Xylographer
(d) Cosmographer
78. Select the most appropriate option to fill in the blank in the given sentence.
We can either watch a movie at home $\qquad$ go to the theater.
(a) nor
(b) or
(c) yet
(d) after
79. Select the most appropriate antonym of the given word.

## Repulsive

(a) Offensive
(b) Attractive
(c) Inactive
(d) Creative
80. Select the most appropriate option to fill in the blank in the given sentence.
Despite his $\qquad$ , he managed to complete the marathon in record time.
(a) exhaustion
(b) exhilaration
(c) exultation
(d) exasperation
81. Select the wrongly spelt word.
(a) Spurious
(b) Refulgent
(c) Compliance
(d) Accomodate
82. Select the most appropriate meaning of the given idiom.
Sell like hot cakes
(a) To be sold very fast.
(b) To accept a challenge
(c) To start deceiving a community of people
(d) To face inflation
83. Select the word which means the same as the group of words given.
The crime of illegally copying something in order to deceive someone
(a) probe
(b) forgery
(c) speculative
(d) snoop
84. In the sentence identify the segment which contains the grammatical error.
Each of the boys are working hard to get a chance to play for the nation.
(a) Each of the boys are
(b) working hard to get a
(c) chance to play for the nation.
(d) No error
85. Select the option that will improve the highlighted part of the given sentence. In case no improvement is needed, select 'No improvement required'.
Among the group of friends, Riya was the most tallest, standing head and shoulders above the rest.
(a) the most tall
(b) most tallest
(c) the tallest
(d) No improvement
86. Select the synonym of the given word. Revive
(a) Rejoice
(b) Recover
(c) Rot
(d) Reduce
87. In the following question, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.
Arvind said, "I can swim."
(a) Arvind said that he could swim.
(b) Arvind said that he can swim.
(c) Arvind said that I can swim.
(d) Arvind said that I could swim.
88. In the following question, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.
Anju said, 'I have finished my homework.'
(a) Anju said that she has finished her work.
(b) Anju said that she had finished her work.
(c) Anju says that she finishes her work.
(d) Anju informed that she finished her work.
89. Select the option that will improve the highlighted part of the given sentence. In case no improvement is needed, select 'No improvement required'.
Why the weather improved, we could go for a walk.
(a) Whether
(b) How
(c) If
(d) No improvement
90. Select the word with the correct spelling.
(a) Voreciously
(b) Definitely
(c) Mercyfully
(d) Ameably


1. (b): Let

$$
\begin{aligned}
& \frac{\sqrt{1296}}{x}=\frac{x}{2.25} \\
& \frac{36}{x}=\frac{x}{2.25} \\
& x^{2}=\frac{36 \times 225}{100} \\
& x=\sqrt{\frac{36 \times 225}{100}}=\frac{6 \times 15}{10}=9
\end{aligned}
$$

2. (d):


Efficiency of $\mathrm{C}=3-2=1$
then $C$ can do this work in $=\frac{30}{1}=30$ days
3. (a): 7345932
$=\frac{\text { Sum of Digits }}{3}$
$=\frac{7+3+4+5+9+3+2}{3}$
$=\frac{33}{3}=11$
4. (a):

5. (d): upstream speed $=\frac{40}{8} \mathrm{~km} / \mathrm{hr}=5 \mathrm{~km} / \mathrm{hr}$ downstream speed $=\frac{36}{6} \mathrm{~km} / \mathrm{hr}=6 \mathrm{~km} / \mathrm{hr}$ Speed of boat in still water
$=\frac{1}{2}(5+6) \mathrm{km} / \mathrm{hr}=5.5 \mathrm{~km} / \mathrm{hr}$
6. (b): $\frac{\text { Volume of the cone }}{\text { Volume of the cylinder }}=\frac{\frac{1}{3} \pi r^{2} h}{\pi r^{2} h}=\frac{1}{3}$
7. (a):

| Profit $=25 \%=\frac{1}{4}$, | Discount $=10 \%=\frac{1}{10}$ |  |
| :--- | :--- | :--- |
| CP | SP | MP |
| 4 | 5 |  |
| 36 | 9 | 10 |
| 36 units $\ldots \ldots . . . . . . . . . . . . . . . . . . . . . . ~$ | Rs. 360 |  |
| $\therefore$ MP $=\frac{360}{36} \times 50=500$ |  |  |

8. (d): Amount $=25,000 \times \frac{112}{100} \times \frac{112}{100} \times \frac{112}{100}$

Amount $=35123.2$
C.I. $=$ Amount- Principal $=35123.2-25,000$
= Rs. 10123.20
9. (d): Sum of $x$ observations $=m x$

If 0 and $m$ is added, then New Sum
$=\mathrm{m}+0+\mathrm{mx}=\mathrm{m}(\mathrm{x}+1)$
Total no. of observations $=x+2$
Mean $=\frac{m(x+1)}{x+2}$
10. (d):


Total efficiency $=(4+3)+(-6)=1$
Total Work $=24$ units
Total Time $=\left(\frac{24}{1}\right)=24 \mathrm{~h}$.
11. (d): Let the capital $=150 \mathrm{x}$

SI form $1^{\text {st }}$ Part $=\frac{100 \mathrm{x} \times 6 \times 1}{100}=6 \mathrm{x}$
SI from 2 ${ }^{\text {nd }}$ Part $=\frac{30 \mathrm{x} \times 10 \times 1}{100}=3 \mathrm{x}$
Remaining Capital $=150 \mathrm{x}-100 \mathrm{x}-30 \mathrm{x}=20 \mathrm{x}$
SI from 3rd Part $=\frac{20 \mathrm{x} \times 15 \times 1}{100}=3 \mathrm{x}$
Total SI $=6 \mathrm{x}+3 \mathrm{x}+3 \mathrm{x}=12 \mathrm{x}$
12 x. $\qquad$ Rs. 600
$\mathrm{x}=$ Rs. 50
Capital=150 $\times 50=$ Rs. 7500
12. (d): Given, $x: y=4: 3$
$x^{3}-y^{3} x^{3}+y^{3}$
$4^{3}-3^{3}: 4^{3}+3^{3}$
37: 91
13. (a): Ratio of Speed $=\frac{6}{8}=\frac{3}{4}$

Ratio of time $=4: 3$
Difference of time $=1$ unit $=40$ minutes
3 units $=120$ minutes $=2$ hours
Then Distance $=8 \times 2=16 \mathrm{~km}$
14. (d): $35 \%=\frac{7}{20}$

If initial Radius $=20$
Final Radius $=20-7=13$
Ratio of radius $=20: 13$
Ratio of Areas $=20^{2}: 13^{2}$

$$
=400: 169
$$

Decrease in Area $=231$
$\%$ Decrease in Area $=\frac{231}{400} \times 100=57 \frac{3}{4} \%$
15. (b): Let Price of article without GST $=100$ unit

Price of article with GST = 100 + 12= 112 unit
Now, 112 unit = Rs. 784
100 unit $=\frac{784}{112} \times 100=700$
16. (c): $\sqrt{150}-\sqrt{54}-\sqrt{24}$
$=5 \sqrt{6}-3 \sqrt{6}-2 \sqrt{6}$
$=0$
17. (b): Initial Quantity of Milk= 67.5 L and Initial Quantity of Water $=17.5 \mathrm{~L}$
As we added only water, that means the quantity of milk remains same.

So,
3 units $\qquad$ 67.5 L

1 units. .22.5 L
So, the Final Quantity of Milk= 67.5 L and Final Quantity of Water= 22.5 L
Quantity of Water to be added= $22.5 \mathrm{~L}-17.5 \mathrm{~L}=5 \mathrm{~L}$
18. (d): Required $\%=\frac{68+84-115}{68+84} \times 100=\frac{37}{152} \times 100=24.34 \%$
19. (c): Total rice of type $A=\frac{35}{360} \times 3240=315 \mathrm{~kg}$

Total damaged rice of type $A=39 \mathrm{~kg}$
Remaining rice of type $\mathrm{A}=315-39=276 \mathrm{~kg}$
Total rice of type $\mathrm{B}=\frac{58}{360} \times 3240=522 \mathrm{~kg}$
Total damaged rice of type $B=42 \mathrm{~kg}$
Remaining rice of type $B=522-42=480 \mathrm{~kg}$
Ratio $=\frac{276}{480}=\frac{23}{40}$
20. (b): Total rice of type $A \& D=\frac{35+68}{360} \times 3240=927 \mathrm{~kg}$

Total rice of type C\&E $=\frac{115+84}{360} \times 3240=1791 \mathrm{~kg}$
Required $\%=\frac{1791-927}{927} \times 100=\frac{864}{927} \times 100=93.20 \%$
21. (b):

I. $\checkmark$
II. $\times$
III. $\checkmark$
IV. $\boldsymbol{x}$
22. (d):
23. (a):

24. (c): 65 is multiple of 13 , in the same way 152 is multiply of 19.
25. (b): 6. Accumulate

1. Affection
2. Antic
3. Appeal
4. Arid
5. Attire.
6. (a):


7. (d):
8. (a):
9. (c): Except c, all others are capital of states.
10. (a): Insomnia indicate sleep and Depression indicate mood.
11. (d): $65 \div 5+45 \times 2-30=73$

$$
\begin{aligned}
& \Rightarrow 13+90-30=73 \\
& \Rightarrow 103-30=73 \\
& 73=73
\end{aligned}
$$

32. (a):

33. (a): $35-14=21=(21)^{2}=441$

$$
34-25=9=(9)^{2}=81
$$

34. (d):


Similarly,

$\begin{array}{llllll}\mathrm{L} & \mathrm{N} & \mathrm{M} & \mathrm{L} & \mathrm{F} & \mathrm{Z}\end{array}$
35. (b): $\mathrm{R} \rightarrow 18$
$\mathrm{E} \rightarrow 5$
$R E=18+5=23$
Similarly,
S $\rightarrow 19$
$\mathrm{T} \rightarrow 20$
ST $=19+20=39$
36. (d): Paternal grandfather of Sonakshi's son implies father of Sonakshi's husband i.e., Sonakshi's father - in law.
37. (a): GIJG/GIJG/GIJG/GIJG
38. (b): $S>P>T>Q>R$
39. (c):

40. (d): TELEDRUM cannot be formed using the letters of the given word "ELECTROMAGNETIC."
41. (a): The correct answer is (a) Article 25-28.

Articles 25 to 28 of the Indian Constitution guarantee the freedom of religion to all persons in India.

- Article 25 guarantees the freedom of conscience and the freedom to profess, practice, and propagate religion.
- Article 26 guarantees the freedom to manage religious affairs of every religious denomination or sect.
- Article 27 prohibits the State from compelling any person to pay any taxes for the promotion of any particular religion.
- Article 28 prohibits religious instruction in any educational institution wholly maintained out of State funds.

42. (a): The correct answer is (a) Hyderabad.

Charminar is a historical monument located in Hyderabad, Telangana, India. It is a 48-meter (157 ft) tall, four-towered archway that was constructed in 1591 by Muhammad Quli Qutb Shah, the fifth Sultan of the Qutb Shahi dynasty. The Charminar is located in the heart of the Old City of Hyderabad and is one of the most popular tourist attractions in the city.
43. (c): The correct answer is (c) 2005.

The Right to Information Act, 2005 (RTI Act) is an Act of the Parliament of India that gives citizens the right to information under the control of public authorities. The RTI Act was passed on 15 June 2005 and came into force on 12 October 2005.
44. (c): The correct answer is (c) Uniform Civil Code

Article 44 of the Indian Constitution, often referred to as the Directive Principle of State Policy, states that "The State shall endeavour to secure for the citizens a uniform civil code throughout the territory of India." This directive principle emphasizes the goal of having a common set of laws governing personal matters such as marriage, divorce, adoption, and inheritance for all citizens of India, regardless of their religious beliefs.
45. (c): The correct answer is (c). Article 149 of the Indian Constitution deals with the functions and duties of the Comptroller and Auditor General of India (CAG).

## Article 149 states that:

1. The Comptroller and Auditor-General shall be appointed by the President by warrant under his hand and seal and shall hold office during the pleasure of the President.
2. The Comptroller and Auditor-General shall be the head of the Indian Audit and Accounts Department and shall be responsible to the President for the efficient performance of the duties pertaining to his office.
3. The duties of the Comptroller and AuditorGeneral shall be to audit all expenditure of the Union and of every State and of every Union territory having a Legislative Assembly, and of all bodies and authorities constituted by the Union or a State or a Union territory having a Legislative Assembly, and to report thereon to the President or the Governor or the Administrator, as the case may be.
4. (b): Correct answer (b) Tamil Nadu

- The Narikurava communities are a Scheduled Tribe primarily found in the Indian state of Tamil Nadu.
- The Narikurava communities, also known as "Kuravars," are a Scheduled Tribe in India. The Narikurava people have a distinct cultural identity and are known for their traditional occupations such as itinerant trade, performing arts, and other livelihood activities.

47. (a): Correct answer (a) Delhi, Mumbai, Kolkata, Chennai The Golden Quadrilateral is a highway network that connects the cities of Delhi, Mumbai, Kolkata, and Chennai. Hence, the correct answer is Delhi, Mumbai, Kolkata, and Chennai.
Details of the Golden Quadrilateral highway network:

- It is a network of six-lane highways connecting India's four major cities, Delhi, Mumbai, Kolkata, and Chennai.
- It was launched in 2001 as part of the National Highways Development Project (NHDP).
- The total length of the network is 5,846 kilometers.
- The project was completed in 2012 at a cost of ₹ 308.58 billion.
- The Golden Quadrilateral highway network has helped to improve the connectivity between the four major cities of India and has also boosted economic growth in these regions.

48. (a): The answer is (a) 7263 runs.

As of October 2022, Virat Kohli has scored 7263 runs in the T20 IPL. He has played 237 matches and has an average of 37.25 . He has also scored 7 centuries and 50 half-centuries in the IPL.
49. (a): The correct answer is (a) Lahore Gate.

Jawahar Lal Nehru, the first Prime Minister of India, hoisted the Indian National Flag at the Lahore Gate of the Red Fort on August 15, 1947. This event marked the end of British rule in India and the beginning of an independent Indian nation. The Lahore Gate was chosen as the site for this historic event due to its historical and cultural significance. Ever since, it has been a tradition for the sitting Prime Minister to hoist the National Flag at the same location every Independence Day and address the nation.
50. (d): The book " Cracking the Code: My Journey in Bollywood" was penned by Ayushmann Khurrana and Tahira Kashyap. So the answer is (d).
51. (b): The answer is (b) Kathak

Shovana Narayan is a renowned Indian Kathak dancer. She was initiated into Kathak at the age of four and has trained under several eminent gurus, including Birju Maharaj. She is known for her strong urge for experimentation and has set a unique trend by redefining dance. She has performed in India and internationally and has been awarded several prestigious awards, including the Padma Shri and the Sangeet Natak Akademi Award.
52. (b): The answer is (b). China

Mandarin is primarily spoken by people from China. It is the official language of China and is spoken by over 1.1 billion people worldwide. It is the most spoken language in the world by number of native speakers.
53. (b): The river Tsangpo is known as the Brahmaputra in Tibet. So the answer is (b).
The Brahmaputra River is a trans-boundary river that flows through Tibet, India, and Bangladesh. It is the ninth-largest river in the world by discharge, and the 15th longest. The river is known by various names in different regional languages, including Brahmaputra or Luit in Assamese, Yarlung Tsangpo in Tibetan, the Siang/Dihang River in Arunachali, and Jamuna River in Bengali.
54. (a): The correct answer is (a) Uttar Pradesh The Bhitargaon brick temple is located in the state of Uttar Pradesh, India. It is a historical Hindu temple known for its unique architectural style and is considered one of the oldest surviving brick temples in North India. The temple is located in the village of Bhitargaon, which is situated in the Kanpur Dehat district of Uttar Pradesh. The temple's architecture and design showcase a blend of Gupta and post-Gupta architectural elements.
55. (c): The correct answer is (c) Credit cards offer lines of credit
A credit card allows the cardholder to borrow money up to a certain credit limit, which needs to be paid back later with interest if the balance is not cleared by the due date. On the other hand, a debit card is linked to the cardholder's bank account and allows them to spend only the money available in their account. Debit cards do not provide a line of credit and do not involve borrowing money
56. (d):The answer is (d). The Nile River discharges its water into the Mediterranean Sea.
The Nile River is the longest river in Africa and the world's longest river flowing entirely within one continent. It originates in the Great Lakes region of East Africa and flows northward through 11 countries: Tanzania, Uganda, Rwanda, Burundi, the Democratic Republic of the Congo, Kenya, Ethiopia, Eritrea, South Sudan, Sudan, and Egypt. The river empties into the Mediterranean Sea at Alexandria, Egypt.
57. (a): Up until 2023, the singers Bhimsen Joshi and Ravi Shankar have been awarded the Bharat Ratna, India's highest civilian honor. Thus, the correct answer is (a) Bhimsen Joshi \& Ravi Shankar.
58. (d): The answer is (d). Penalty Corner.

Free Style, Butterfly Stroke, and Backstroke are all swimming strokes. Penalty Corner is a term used in field hockey, not swimming.
59. (b): Correct Answer (b) Karnataka

Yakshagana is a traditional dance-drama form that originated in the state of Karnataka, India. It combines elements of dance, music, dialogue, and elaborate costumes to depict mythological and historical stories. The performances are characterized by vibrant makeup, colorful costumes, and energetic dance movements.
60. (b): Correct Answer (b) Santiago Ramón y Cajal Santiago Ramón y Cajal is credited with the discovery of nerve cells. He was a Spanish neuroscientist who is often referred to as the "father of modern neuroscience." In the late 19th century, Cajal used the Golgi staining method to study the structure of the nervous system, particularly nerve cells or neurons. His work led to the understanding that the nervous system is composed of individual cells called neurons, which communicate through synapses. This discovery laid the foundation for our current understanding of the structure and function of the nervous system.
61. (b): Correct answer (b) Odisha

Nuakhai is a harvest festival celebrated primarily in the Indian state of Odisha. It is a significant festival for the people of Odisha, especially for farmers and those involved in agriculture. The word "Nuakhai" is derived from two words: "Nua" meaning new, and "Khai" meaning eat. It signifies the consumption of newly harvested rice, marking the beginning of the agricultural season.
62. (c): Correct answer (c) Bharatanatyam

Yamini Krishnamurthy is renowned for her exceptional contributions to the art of Bharatanatyam, a classical Indian dance form. She has played a significant role in popularizing and preserving the traditional aspects of Bharatanatyam while infusing it with her own artistic style and interpretation.
63. (c): The answer is (c) Sri Lanka, India, and Bangladesh. The 2011 ICC Cricket World Cup was co-hosted by India, Sri Lanka, and Bangladesh. India hosted the most matches, with 29, followed by Sri Lanka with 12 and Bangladesh with 8. The final was held at the Wankhede Stadium in Mumbai, India.
64. (c): The answer is (c). Bihar.

According to the 2011 census, Bihar has the lowest literacy rate of $63.82 \%$. The male literacy rate in Bihar is $73.39 \%$ and the female literacy rate is 53.33\%.
65. (b): The answer is (b). Playing It My Way.

Sachin Tendulkar's autobiography is titled "Playing It My Way". It was published in 2014 and was a bestseller. The book chronicles Tendulkar's life and career, from his early days as a young boy playing cricket in Mumbai to his record-breaking achievements on the international stage.
66. (a): The correct answer is option a. The word that can be filled in the blank is 'Spent'. As per the context, the word 'Spent' fits in very well \& hence, it is the correct choice
67. (d): The correct answer is option d.

The word that can be filled in the blank is 'Starving'. As per the context, the word 'Starving' fits in very well \& hence, it is the correct choice.
68. (b): The correct answer is option $b$. The word that can be filled in the blank is `Denied.' As per the context, the word 'Denied fits in very well \& hence, it is the correct choice.
69. (d): The correct answer is option $d$.

The word that can be filled in the blank is 'Later.' As per the context, the word ` Later' fits in very well \& hence, it is the correct choice.
70. (c): The correct answer is option c.

The word that can be filled in the blank is `Afraid’. As per the context, the word `Afraid' fits in very well \& hence, it is the correct choice.
71. (c): The correct answer is option c.

The word "feud" refers to a prolonged and bitter quarrel or dispute between two parties or individuals. In this context, the most appropriate antonym for "feud" would be "harmony."
Harmony signifies a state of peaceful coexistence, agreement, and cooperation between individuals or groups.
Let's look at other options:

- Dispute - A dispute is similar to a feud, involving conflicts and disagreements.
- Enmity - Enmity refers to a state of hostility and deep-seated hatred, which can be related to a feud.
- Conflict - Conflict is related to a feud as it involves clashes and disagreements.
Therefore, the correct answer is option (c).

72. (c): The correct answer is option c.

The idiom "Call a spade a spade" means to speak openly, honestly, and directly without using euphemisms or avoiding the truth. It implies expressing things as they truly are, without sugarcoating or using vague language.
Therefore, option (c) is the correct meaning of the idiom.
73. (d):The correct answer is option (d) 'Assist'.

- The word "facilitate" means to make a process or action easier or smoother.
- Among the options provided, "Assist" is the most appropriate synonym for "facilitate." It conveys the idea of providing support or aid to make a task or process more manageable.
- The other options, such as "Impede" (to hinder), "Demolish" (to destroy), and "Deprive" (to take away), have meanings that are opposite or unrelated to the concept of making something easier or smoother.


## Therefore, the correct answer is option (d).

74. (b): The correct answer is option $b$.

In the given sentence, "She do her homework diligently every evening," the grammatical error is in segment (b) "She do."

- The correct form should be "She does" instead of "She do."
- The subject "She" requires the third-person singular form of the verb "do," which is "does."
- The correct sentence should be: "She does her homework diligently every evening."

75. (a): The sentence describes a situation where the company's decision was met with resistance and anger from the workforce. In this context, "lay off" is the correct choice.
"Lay off" refers to the act of terminating or dismissing employees from their jobs, often due to factors such as company restructuring, downsizing, or economic difficulties.
Options (b) "Take on," (c) "Promote," and (d) "Demote" are not the best choices for the given sentence. "Take on" refers to hiring new employees.
"Promote" refers to giving an employee a higher position within the company.
"Demote" refers to assigning an employee to a lower position.
Therefore, the correct answer is option (a).
76. (a): The correct answer is option a.

The given sentence is of 'Active voice'.
The sentence is said to be in active voice when `Subject' is active \& does something. In the given sentence, the subject is `Rakesh'\& the subject performs some action.
(Building a house)
Now we have to convert it into passive voice.
Passive voice - If the sentence is in passive form, the subject remains inactive. It does
nothing, but allows something to be done.
In the passive form, the object of the verb in Active voice becomes the subject of the
verb in the Passive voice. 'By' is introduced as now the subject receives the action by the
object.
The sentence thus formed is- A house is being built by Rakesh.
77. (a): The correct answer is option a.

Lexicographer - A person who writes or compiles a dictionary.
Option a portrays the same meaning as that of the given group of words \& hence it is the correct choice.
78. (b):The correct answer is option (b).

The conjunction "or" is used to present a choice between two options. In this sentence, it offers two alternatives: watching a movie at home or going to the theater.
79. (b): The word "repulsive" refers to something that causes strong feelings of disgust or aversion. It describes something that is unpleasant or unappealing.
In contrast, the antonym "attractive" means appealing, pleasing, or charming.
Let's examine each option in detail:

- Offensive: something that is hurtful, insulting, or causing displeasure.
- Attractive: This is the correct antonym for "repulsive." "Attractive" represents something that is appealing and pleasant, which is the opposite of "repulsive."
- Inactive: refers to something that is not active or not engaged in activity.
- Creative: relates to the ability to produce or express original ideas and imagination.
Hence, the correct answer is option (b).

80. (a): Despite his exhaustion, he managed to complete the marathon in record time.
Exhaustion means extreme tiredness or fatigue.
In this context, it means that the person was extremely tired but still managed to finish the marathon in record time.

- Exhilaration means a feeling of great happiness or excitement.
- Exultation means a feeling of triumph or jubilation.
- Exasperation means a feeling of intense irritation or annoyance.

81. (d):The correct answer is option (d).

The correct spelling is "Accommodate." The word "Accomodate" is misspelled, as it should have double ' m ' instead of a single ' m '. The correct spelling of the word means to provide lodging or to make suitable arrangements for someone.
Therefore, the wrongly spelt word is option d .
82. (a): The correct meaning of the idiom "Sell like hot cakes" is option (a) 'To be sold very fast'. This idiom is often used to describe a situation where a product or item is being purchased by customers at a rapid pace, indicating high demand and popularity.
83. (b): Let's define each word:

Probe: a thorough investigation into a crime or other matter.
Forgery: the act of reproducing something for a deceitful or fraudulent purpose.
Speculative: engaged in, expressing, or based on conjecture rather than knowledge.
Snoop: a furtive investigation.
Hence, option (b) is the correct choice.
84. (a): After - Each of / Either of / Neither of / Everyone of/ One of, etc., the noun or pronoun is always plural but, the verb remains singular. Hence, use 'is' instead of 'are' to make the sentence grammatically correct.
85. (c): The given sentence contains a grammatical error related to the use of the superlative form of the adjective "tall."
Let's analyze the options:
(a) the most tall - This option is incorrect because it uses "the most tall," which is not the correct way to form the superlative form of the adjective "tall."
(b) most tallest - This option is incorrect as well. Using both "most" and "tallest" together is redundant and grammatically incorrect.
(c) the tallest - This option is the correct improvement. The word "tallest" is already the superlative form of the adjective "tall." There's no need to use "most" with it.
(d) No improvement - This option is incorrect because the original sentence contains a grammatical error.
Therefore, the correct answer is option (c).
86. (b): The correct answer is option $b$.

The correct synonym for the word "Revive" is "Recover."
"Revive" means to bring back to life or consciousness, while "Recover" means to regain health, strength, or normal condition after an illness, injury, or setback. Option (a) "Rejoice" means to feel or show great joy or happiness.
Option (c) "Rot" means the process of decay or decomposition.
Option (d) "Reduce" means to make smaller or less in amount, degree, or size.
Therefore, the correct answer is option (b).
87. (a): The correct answer is option a.

The given sentence is 'Direct Speech'.
Direct Speech - Reporting the message of the speaker in the exact words as spoken by him.
Indirect Speech - Reporting the message of the speaker in our own words.
Can' changes to 'Could'.
The sentence thus formed is - Arvind said that he could swim.
88. (b): The correct answer is option b.

The given sentence is 'Direct Speech'.
Direct Speech - Reporting the message of the speaker in the exact words as spoken by him. The given sentence is an 'Assertive Sentence.'

Sentences that make a statement are called assertive sentences. These sentences may be positive, negative, false, or true statements.
While changing it into an indirect form, we consider following rules.
Reported Verb - 'Said' remains unchanged.
Conjunction - In the Assertive sentence conjunction
'That' is used.
The sentence thus formed is - Anju said that she had finished her work.
89. (c): Use 'if' instead of 'why' to improve the sentence grammatically.

- Why- it is used in an interrogative sentence to ask for reason.
- The sentence is an example of first conditional.
- The first conditional (if + present simple, will + infinitive) refers to the present or future; what is said in the condition is possible.
- The second conditional (if + past simple, would + infinitive) refers to the present; what is said in the condition is unreal or unlikely.
- The third conditional (if + past perfect, would have + past participle) refers to the past; what is said in the condition did not happen.

90. (b): The correct spelling is "Definitely."

Let's go through options:

- Voreciously - This word is not spelled correctly. The correct spelling is "voraciously," which means with great eagerness or enthusiasm.
- Definitely - This is the correct spelling. It means without a doubt or certainly.
- Mercyfully - This word is not spelled correctly. The correct spelling is "mercifully," which means in a compassionate or forgiving manner.
- Ameably - This word is not spelled correctly. The correct spelling is "amiably," which means in a friendly or pleasant manner.

