

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

1. Find the value of x

$$\frac{\sqrt{1296}}{x} = \frac{x}{2.25}$$

(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 40km upstream in 8 hours and 36km downstream in 6 hours. The speed of the boat in standing water is-

(a) 6.5 km/hr

(b) 6 km/hr

(c) 5.25 km/h

(d) 5.5 km/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

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

The arithmetic mean of x observation is m. If two observations 0 and m are added, then the new mean will be:

(a) m+1

(c) m

(b) $\frac{m}{x+1}$ (d) $\frac{m(x+1)}{x+2}$

10. Tap A can fill a tank in 6h, whereas Tap B can fill it in 8 h. Tap C can empty the same tank in 4h. 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 $\frac{2}{3}$ rd 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 km/h and 8 km/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) $56\frac{3}{4}\%$ (c) $57\frac{1}{4}\%$

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?

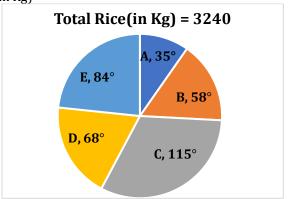
(a) 8L

(b) 5L

(c) 15L

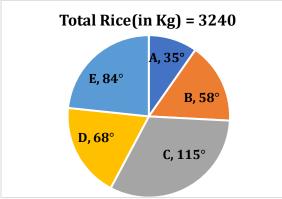
(d) 13L

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)



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)



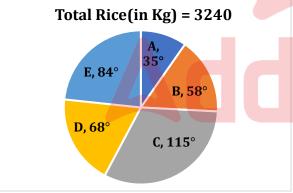
In the given pie-chart 42 kg of rice of type B and 39 kg of rice of type A is in damage condition then find what is the ratio of the remaining rice of type A to type B.

(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)



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.

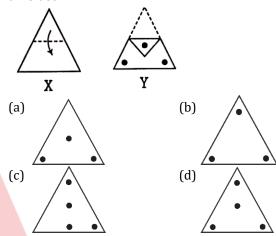
Statements:

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?



- 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

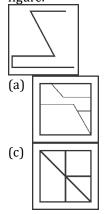
- (d) 201
- **25.** Select the correct option that indicates the arrangement of the given words in the order in which they appear in an English dictionary.
 - 1. Affection
- 2. Appeal

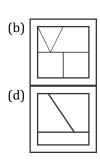
3. Arid

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
- **26.** 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) CYUQ
- (c) TPLH
- (d) FBXT

27. Select the option figure that is embedded in the given figure.





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



- BHARATH (a)
- H L A K A T H (d)
- (c) BHARATH
- BTARATH
- **29.** 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
- **30.** 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
- **31.** Select the correct combination of mathematical signs that can sequentially replace the signs balance the given equations.

- (a) \div , ×, +, -, =
- (b) +, \div , \times , =, -
- (c) \div , +, ×, =, -
- (d) \div , +, \times , -, =
- **32.** 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 (c) IGIJ

- (b) GIGI
- (d) GIGI
- **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 cacity? (a) Hyderabad (c) Kolkata | n be found in which Indian (b) Delhi (d) Mumbai | (a) | which state is the Bhitarga) Uttar Pradesh) Rajasthan | aon brick temple located? (b) Madhya Pradesh (d) Odisha |
|-------------|---|--|---|---|--|
| 43. | In what year was the Right to (a) 2004 (c) 2005 | | 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 | | |
| 44. | What is the subject of Constitution? (a) Right to Property (c) Uniform Civil Code | (b) Secularism | (d) 56. Th |) Debit and credit cards function of the Neil River discharges was Atlantic Ocean | nction the same way |
| 45 . | (c) Uniform Civil Code (d) Sovereignty 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 | | (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 | | |
| 46. | The Narikurava communities which Indian state? (a) Karnataka (c) Andhra Pradesh | es are a Scheduled Tribe in (b) Tamil Nadu (d) Kerala | 58. W |) A.R. Rahman & K. J. Yesu hich of the following terms) Free Style) Backstroke | das s is not related to swimming? (b) Butterfly Stroke (d) Penalty Corner |
| 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 | | 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 | | |
| 48. | How many runs has Virat Ko October 2022? (a) 7263 runs (c) 6211 runs | hli scored in the T20 IPL till (b) 6617 runs (d) 7105 runs | (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 contributions to which form of dance? (a) Kathak (b) Odissi (c) Bharatanatyam (d) Kuchipudi 63. Which country hosted the 2011 ICC Cricket World C (a) Australia (b) England | (d) Albert Einstein d in which Indian state? (b) Odisha | |
| 49. | Which gate of the Red Fort hoist the Indian National Flag (a) Lahore Gate (c) Water Gate | | | s best known for her of dance? (b) Odissi | |
| 50. | Who penned the book title Journey in Bollywood"? (a) Shah Rukh Khan (c) Amitabh Bachchan | d " Cracking the Code: My (b) Karan Johar (d) Ayushmann Khurrana | | 011 ICC Cricket World Cup? | |
| 51. | Which dance form is Shovana (a) Bharatanatyam (c) Odissi | a Narayan associated with? (b) Kathak (d) Salsa | (c) Sri Lanka, India, and Bangladesh(d) South Africa64. According to the 2011 census, which Indian stat | | |
| 52. | Mandarin is primarily spok country? (a) Japan | (b) China | (a) | corded the lowest literacy) Kerala) Bihar | rate? (b) Goa (d) Tamil Nadu |
| 53. | (c) South Korea What is the alternate name for | | Te | endulkar? | biography written by Sachin |
| | (a) Yamuna(c) Ganges | (b) Brahmaputra (d) Indus | , , |) The Test of My Life) Wings of Fire | (b) Playing It My Way (d) Open |

| have been deleted. Fill in | e following passage some words the blanks with the help of the the most appropriate option for | 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 | | | |
|---|--|---|--|--|--|
| There once was a poor bo | by who (1) his days going | (c) diligently every (d) No error | | | |
| door-to-door selling news as he was walking his rout The poor boy was when he came to the next of | papers to pay for school. One day, ee, he started feeling low and weak. _, (2) so he decided to ask for food | 75. Select the most appropriate option to fill in the blank in the given sentence. The company's decision to its employees was met with resistance and anger from the workforce. | | | |
| | of a girl. He asked for a glass of | (a) Lay off (b) Take on | | | |
| | state, the girl came back with a glass | (c) Promote (d) Demote | | | |
| | w much he owed her for the milk, | 76. Select the option that is the passive form of the given | | | |
| but she refused payment. | | sentence. | | | |
| | who was now a grown woman, fell | Rakesh is building a house. | | | |
| cure her. Finally, she went | r to doctor, but no one was able to | (a) A house is being built by Rakesh. | | | |
| - | treating her until she was finally | (b) A house being build by Rakesh. | | | |
| | iness, she was (5) she | (c) A house was being built by Rakesh. | | | |
| | bill. But, when the hospital handed | (d) A house was been built by Rakesh. | | | |
| her the bill, it read, 'Paid in | full, with a glass of milk.' | 77. Select the word which means the same as the group o | | | |
| | opriate option for blank no. 1. | words given. | | | |
| (a) Spent | (b) Save | A person who compiles dictionaries | | | |
| (c) Worked | (d) Live | (a) Lexicographer (b) Cryptographer (c) Xylographer (d) Cosmographer | | | |
| | opriate option for blank no. 2. | | | | |
| (a) Unfit | (b) Weak | 78. Select the most appropriate option to fill in the blank | | | |
| (c) Undernourished | (d) Starving | in the given sentence. | | | |
| | opriate option for blank no. 3. | We can either watch a movie at home go to the theater. | | | |
| (a) Insulted (c) Refuse | (b) Denied (d) Beaten | (a) nor (b) or | | | |
| | | (c) yet (d) after | | | |
| (a) After (c) Then | opriate option for blank no. 4. (b) When (d) Later | 79. Select the most appropriate antonym of the given word. | | | |
| | opriate option for blank no. 5. | Repulsive | | | |
| (a) Confident | | (a) Offensive (b) Attractive | | | |
| (c) Afraid | (d) Calm | (c) Inactive (d) Creative | | | |
| 71. Select the most app word. Feud | propriate antonym of the given | 80. Select the most appropriate option to fill in the blank in the given sentence.Despite his, he managed to complete the marathon | | | |
| (a) Dispute | (b) Enmity | in record time. | | | |
| (c) Harmony | (d) Conflict | (a) exhaustion (b) exhilaration | | | |
| 72. Select the most app | propriate meaning of the given | (c) exultation (d) exasperation | | | |
| idiom. | | 81. Select the wrongly spelt word. | | | |
| Call a spade a spade | ra to gain advantage | (a) Spurious (b) Refulgent | | | |
| (a) To sugarcoat thing (b) To memorize peop | | (c) Compliance (d) Accomodate | | | |
| (c) To speak clearly a | | 82. Select the most appropriate meaning of the given | | | |
| (d) To call things with | - | idiom. | | | |
| 73. Select the most ann | ropriate synonym of the given | Sell like hot cakes | | | |
| word. | | (a) To be sold very fast. | | | |
| Facilitate | | (b) To accept a challenge | | | |
| (a) Impede | (b) Demolish | (c) To start deceiving a community of people | | | |
| ICI DEDCIVE | IIII ASSISI | | | | |

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



Solutions

1. **(b)**:Let

$$\frac{\sqrt{1296}}{x} = \frac{x}{2.25}$$

$$\frac{36}{x} = \frac{x}{2.25}$$

$$x^2 = \frac{36 \times 225}{100}$$

$$x = \sqrt{\frac{36 \times 225}{100}} = \frac{6 \times 15}{10} = 9$$

2. (d):

Efficiency of 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):
$$Ratio \longrightarrow 1 : 2 : 3$$

$$\begin{vmatrix} \times 12 & \times 12 & \times 12 \\ 12 & 24 & 36 \end{vmatrix}$$

5. **(d)**: upstream speed = $\frac{40}{8}$ km/hr = 5km/hr downstream speed = $\frac{36}{6}$ km/hr = 6km/hr

Speed of boat in still water $=\frac{1}{2}(5+6)$ km/hr = 5.5 km/hr

(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 | | | | | |
| - | 9 | 10 | | | | |
| 36 | 45 | 50 | | | | |
| 36 units Rs. 360 | | | | | | |
| $\therefore MP = \frac{360}{36} \times 50 = 500$ | | | | | | |

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

Amount= 35123.2

C.I. = Amount- Principal= 35123.2- 25,000

= Rs. 10123.20

9. (d): Sum of x observations = mx

If 0 and m is added, then New Sum

$$= m + 0 + mx = m(x+1)$$

Total no. of observations = x + 2

$$Mean = \frac{m(x+1)}{x+2}$$

10. (d):

B-8

C-4

B-8

C-4

B-8

A-6

Total efficiency =
$$(4 + 3) + (-6) = 1$$

Total Work = 24 units

Total Time = $\left(\frac{24}{1}\right) = 24$ h.

11. (d):Let the capital = 150x

SI form 1st Part =
$$\frac{1000 \times 6 \times 1}{100}$$
 = 6x
SI from 2nd Part = $\frac{300 \times 10 \times 1}{100}$ = 3x

Remaining Capital = 150x - 100x - 30x = 20xSI from 3^{rd} Part = $\frac{20x \times 15 \times 1}{100}$ = 3x

SI from
$$3^{rd}$$
 Part = $\frac{20x \times 15 \times 1}{100}$ = 3.
Total SI = $6x + 3x + 3x = 12x$

12 x.....Rs. 600

$$x = Rs. 50$$

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 = $8 \times 2 = 16$ 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 L

> As we added only water, that means the quantity of milk remains same.

So,

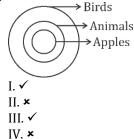
3 units......67.5 L

1 units.....22.5 L

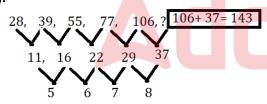
So, the Final Quantity of Milk= 67.5 L and Final Quantity of Water= 22.5 L

Quantity of Water to be added= 22.5 L - 17.5 L = 5L

- **18.** (d): Required $\% = \frac{68 + 84 115}{68 + 84} \times 100 = \frac{37}{152} \times 100 = 24.34\%$
- **19.** (c): Total rice of type $A = \frac{35}{360} \times 3240 = 315 \text{ kg}$ Total damaged rice of type A= 39 kg Remaining rice of type A=315-39=276 kgTotal rice of type $B = \frac{58}{360} \times 3240 = 522 \text{ kg}$ Total damaged rice of type B = 42 kgRemaining rice of type B= 522-42=480 kgRatio= $\frac{276}{480} = \frac{23}{40}$
- **20. (b):** Total rice of type A&D= $\frac{35+68}{360}$ × 3240 = 927 kg Total rice of type C&E= $\frac{115+84}{360}$ × 3240 = 1791 kg Required %= $\frac{1791-927}{927}$ × 100 = $\frac{864}{927}$ × 100 = 93.20%
- 21. (b):

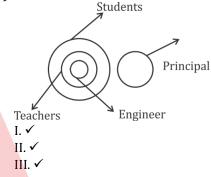


- 22. (d):
- 23. (a):

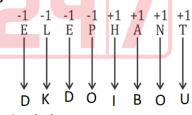


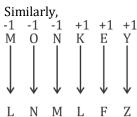
- **24. (c)**: 65 is multiple of 13, in the same way 152 is multiply
- **25. (b)**: 6. Accumulate
 - 1. Affection
 - 4. Antic
 - 2. Appeal
 - 3. Arid
 - 5. Attire.
- 26. (a):

- 27. (d):
- 28. (a):
- **29. (c)**: Except c, all others are capital of states.
- 30. (a): Insomnia indicate sleep and Depression indicate
- **31.** (d): $65 \div 5 + 45 \times 2 30 = 73$ \Rightarrow 13 + 90 - 30 = 73 \implies 103 - 30 = 73 73 = 73
- 32. (a):



- **33.** (a): $35 14 = 21 = (21)^2 = 441$ $34 - 25 = 9 = (9)^2 = 81$
- 34. (d):





- **36. (d)**: Paternal grandfather of Sonakshi's son implies father of Sonakshi's husband i.e., Sonakshi's father - in -
- **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 Auditor-General 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.
- 46. (b): Correct answer (b) Tamil Nadu
 - The Narikurava communities are a Scheduled Tribe primarily found in the Indian state of Tamil
 - 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 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 Bharatanatvam, 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 appropr<mark>iat</mark>e 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

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

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.