STAFF SELECTION COMMISSION

COMBINED HIGHER SECONDARY LEVEL (TIER-I)

SOLVED PAPER

(31st May 2022: Shift-3)

Time Allotted-1 hour **Max marks-** 200

Important Instructions:-

⇨ This paper contains 100 questions which are divided into 4 sections and each section contains 25 questions.
- ✓ English Language (Basic Knowledge)
- ✓ General Intelligence
- ✓ Quantitative Aptitude (Basic Arithmetic Skill)
- ✓ General Awareness

⇨ There will be 2 marks for each correct answer and also there will be negative marking of 0.50 marks for each wrong answer.

⇨ Each question is compulsory to attempt and there will be no negative marking for unattempted questions.

English Language

1. Select the most appropriate meaning of the given idiom.
Break a leg
1. Speak directly **2.** Work long hours
3. Wish someone good luck **4.** Wish someone bad luck

2. Select the most appropriate meaning of the given idiom.
Miss the boat
1. Miss the goal of life **2.** Miss the person
3. Miss an opportunity **4.** Miss the journey

3. Select the most appropriate ANTONYM of the given word.
Comely
1. Grandiloquent **2.** Gorgeous
3. Gregarious **4.** Grotesque

4. Select the most appropriate synonym of the given word.
Arraign
1. Arrive **2.** Prosecute **3.** Persecute **4.** Arrange

5. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. Many times _____ starts with the creative _____ and the enduring passion of a single individual.
1. tradition, lethargy **2.** stagnation, determination
3. renovation, dullness **4.** innovation, spark

6. Select the option that expresses the given sentence in passive voice. Alfred's doctor treated Rohan for his fever.
1. Rohan will be treated by Alfred's doctor for his fever.
2. Rohan has been treated by Alfred's doctor for his fever.
3. Rohan was treats by Alfred's doctor for his fever.
4. Rohan was treated by Alfred's doctor for his fever.

7. Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.
A. In 1895, a man named Birsa was seen roaming the forests and villages of Chottanagpur in Jharkhand.
B. Soon thousands began following Birsa, believing that he was God and had come to solve all their problems.
C. Birsa himself declared that God had appointed him to save his people from trouble, free them from the slavery of 'dikus'.
D. People said he had miraculous powers – he could cure all diseases and multiply grain.
1. CABD **2.** BADC **3.** ADCB **4.** DCBA

8. Select the option that expresses the given sentence in active voice. The flyer for the international symposium is being sent by students to institutes all over the country.
1. Students are being sent the flyer for the international symposium to institutes all over the country.
2. The flyer for the international symposium is sent by students to institutes all over the country.
3. Students are sending the flyer for the international symposium to institutes all over the country.
4. The flyer is sending the students to institutes all over the country for the international symposium.

9. The following sentence contains a grammatical error. Select the option that correctly rectifies the error.
In its August 1992 issue, the highly respected British Journal of Addiction describe three unusual cases of carrot dependence.
1. In its August 1992 issue, the highly respected British Journal of Addiction was describing three unusual cases of carrot dependence.
2. In its August 1992 issue, the highly respected British Journal of Addiction describing three unusual cases of carrot dependence.
3. In its August 1992 issue, the highly respected British Journal of Addiction described three unusual cases of carrot dependence.
4. In its August 1992 issue, the highly respected British Journal of Addiction has been described three British Journal of Addiction has been described three

10. Select the most appropriate meaning of the given idiom. On cloud nine
1. Good number **2.** Travel by airplane
3. Extremely happy **4.** Heavy rain

11. Select the most appropriate ANTONYM of the given word.
Reinforce
1. Validate **2.** Weaken
3. Diverge **4.** Determine

12. Select the INCORRECTLY spelt word.
1. Quear **2.** Antibodies
3. Brag **4.** Rascal

13. Select the option that can be used as a one-word substitute for the given group of words.
To dispute angrily
1. Wrench **2.** Wreck **3.** Wrangle **4.** Wrack

14. Select the most appropriate ANTONYM of the underlined word in the following sentence.
there are some technologies available today that make a notebook <u>dispensable</u>.
1. acceptable **2.** urgent **3.** essential **4.** popular

15. Select the INCORRECTLY spelt word.
1. Tactile **2.** Concentratte
3. Domicile **4.** Customary

16. Select the most appropriate option to fill in the blank.
She was _____ right nor wrong.
1. not **2.** neither **3.** whether **4.** either

17. Select the option that will improve the underlined part of the given sentence.
The children opens the door silently, yesterday.
1. will open the door **2.** open the door
3. opened the door **4.** Will have opened the door

18. Select the most appropriate synonym of the given word.
Admire
1. Neglect **2.** Admonish **3.** Forget **4.** Appreciate

19. Select the option that can be used as a one-word substitute for the underlined group of words.
Nisha participates in almost every activity and in all functions held in the school as she has many skills.
1. Vulnerable **2.** Innovative
3. Versatile **4.** Fragile

20. Which word in the given sentence is the ANTONYM of – exonerate?
It was difficult to convict him of the falsity of his beliefs.
1. falsity **2.** convict **3.** beliefs **4.** difficult

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.
The Hall of Dharma was in a circular building, built of stone and mortar, with a (1)_____ dome. The delicate (2)_____of the dome was believed to represent the feminine while the typical temple spire represented the masculine. The hall was also (3)_____ All rishis sat as (4)_____ without a moderating 'head', debating issues openly and without fear, freedom of (5)_____at its zenith.

21. Select the most appropriate option to fill in blank number 1.
1. massive **2.** passive
3. intrusive **4.** conclusive

22. Select the most appropriate option to fill in blank number 2.
1. harshness **2.** masculinity
3. vengeance **4.** elegance

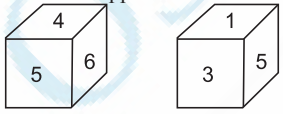
23. Select the most appropriate option to fill in blank number 3.
1. perpendicular **2.** peculiar **3.** vertical **4.** circular

24. Select the most appropriate option to fill in blank number 4.
1. crossed **2.** unequal **3.** equals **4.** conical

25. Select the most appropriate option to fill in blank number 5.
1. depression **2.** expression
3. running **4.** inspiration

General Intelligence

26. Two different positions of the same dice are shown, the six faces of which are numbered from 1 to 6. Select the number that will be on the face opposite to the one showing '1'.

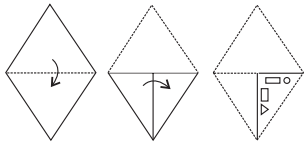


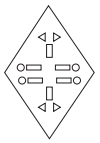
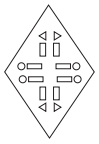
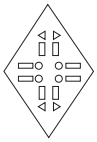
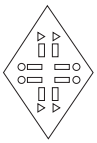
1. 3 **2.** 2 **3.** 6 **4.** 4

27. Which letter-cluster will replace the question mark (?) to complete the given series?
TVEQ, PBWA, ?, HNGU, DTYE
1. IEFN **2.** LHOK **3.** MWJK **4.** RUDA

28. 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.
Tis : Sit :: Tip : Pit :: Ten : ?
1. Ken **2.** Net **3.** Set **4.** Pen

29. A paper is folded and cut as shown below. How will it appear when unfolded?



1.  **2.**  **3.**  **4.** 

30. Select the option that is related to the fourth term in the same way as the first term is related to the second term and the fifth term is related to the sixth term
9 : 126 :: ? : 238 :: 21 : 294
1. 18 **2.** 28 **3.** 22 **4.** 17

31. Select the option that represents the correct order of the given words as they would appear in an English dictionary.
1. Absorption **2.** Absolutely
3. Abduct **4.** Abbreviation
5. Accurate
1. 3,4,2,1,5 **2.** 4,3,2,1,5 **3.** 1,2,3,4,5 **4.** 3,2,4,1,5

32. Which of the following numbers will replace the question mark (?) in the given series?
229,233,239,241,251,?
1. 257 **2.** 263 **3.** 261 **4.** 259

33. 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.
SIMPLE : ISNKEL :: PUBLIC : UPYOCI :: MINUTE : ?
1. NIMTUE **2.** NIMETU **3.** IMUNET **4.** IMMFET

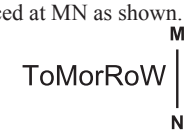
34. Study the given pattern carefully and select the number that can replace the question mark (?) in it.
First row - 6, 8, 34
Second row - 3, 2, 10
Third row - 11, 18, ?
(**Note:** Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 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).
1. 47 **2.** 84 **3.** 74 **4.** 48

35. Select the option that represents the correct order of the given words as they would appear in an English dictionary.
1. Draft **2.** Drake **3.** Drain **4.** Drape
5. Dragon
1. 1, 5, 3, 2, 4 **2.** 3, 1, 2, 5, 4
3. 3, 1, 5, 2, 4 **4.** 1, 3, 5, 2, 4

36. Select the correct combination of mathematical signs to replace the * signs and to balance the given equation.
14*5*55*74*12*4*3
1. =,+,−,×,−,÷ **2.** +,−,=,−,×,+
3. ×,+,−,=,×,+ **4.** ×,−,=,+,−,×

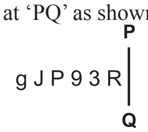
37. In a certain code language, "CASTLE" is written as "BYPUNH", and "DEMAND" is written as "CCJBPG". How will "EITHER" be written in that language?
1. DGQIHU **2.** DGQIGU **3.** DGQJGU **4.** DGPIGU

38. Select the correct mirror image of the given combination when the mirror is placed at MN as shown.



1. WoЯıoMoT 2. oЯıoMoT
3. WoЯoMoT 4. WoЯıoMo

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

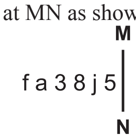


1. Я Ɛ 6 ٩ Ⅎ ƍ 2. Я 3 6 d Ⅎ ƍ
3. Я Ɛ 6 ٩ J g 4. Я Ɛ 6 ٩ Ⅎ ɑ

40. Which of the following numbers will replace the question mark (?) in the given number series?
5, 6, ?, 45, 184, 925
1. 12 2. 15 3. 14 4. 18

41. Select the set in which the numbers are related in the same way as are the numbers of the following set.
(360, 12, 60)
1. (362, 13, 54) 2. (342, 19, 36)
3. (369, 15, 78) 4. (398, 16, 34)

42. Select the correct mirror image of the given combination when the mirror is placed at MN as shown below.



1. ट j 8 Ɛ ɐ ƚ 2. ट ſ 8 Ɛ ɐ ƚ
3. ƽ ǐ 8 3 ƨ ƚ 4. ट ǐ 8 Ɛ ƨ ƚ

43. Two statements are given followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.
Some apartments are bungalows.
Some bungalows are flats.
Conclusions:
I. Some apartments are flats.
II. Some flats are bungalows.
1. Only conclusion I follows
2. Both conclusions I and II follow
3. Neither conclusion I nor II follows
4. Only conclusion II follows

44. Which of the following numbers will replace the question mark (?) in the given series?
6, 36, 41, ?, 167, 334
1. 125 2. 153 3. 160 4. 164

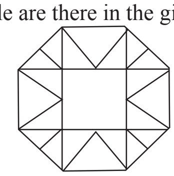
45. Select the correct combination of mathematical signs to sequentially replace the * signs and to balance the given equation.
16*4*8*10*2*52
1. ×, ÷,–,+, = 2. –,+,×,÷,=
3. ÷,×,–,+, = 4. ÷,×,+,–, =

46. Which of the following numbers will replace the question mark (?) in the given series?
13, 17, 24, 36, 55, 85, 128, 188, ?
1. 267 2. 274 3. 276 4. 247

47. Which letter cluster will replace the question mark (?) to complete the given series?
KGCJ, JEZF, ? , HATX, GYQT
1. WBCI 2. WBCJ 3. ICWB 4. ICWA

48. In a certain code language, 'DIVIDE' is coded as '7 17 43 17 7 9' and 'SUBTRACT' is coded as '37 41 3 39 35 1 5 39'. How will 'ADDITION' be coded in that language?
1. 1 6 7 17 29 17 29 27 2. 1 7 2 17 22 17 29 27
3. 1 7 7 15 39 17 29 29 4. 1 7 7 17 39 17 29 27

49. How many triangle are there in the given figure?



1. 24 2. 36 3. 32 4. 30

50. The second number in the given number-pairs is obtained by performing certain mathematical operation(s) on the first number. The same operation(s) are followed in all the number-pairs EXCEPT one. Find that odd number-pair.
1. 64 : 6 2. 36 : 5 3. 169 : 11 4. 196 : 12

Quantitative Aptitude

51. ΔABC is similar to ΔPQR. The area of ΔABC is 64 cm^2, and the area of ΔPQR is 121 cm^2. If QR=15.4 cm, what is the length of BC?
1. 13.2 cm 2. 15.4 cm 3. 11.2 cm 4. 12.3 cm

52. The following table represents the weightage of different decision features of an automobile. With the help of this information, calculate the weighted average.
Features Weightage
Safety – 8/10 40%
Comfort – 6/10 20%
Fuel Mileage – 5/10 30%
Exterior looks – 8/10 10%
1. 0.57 2. 0.76 3. 0.67 4. 0.5

53. The ratio of time taken by Anamika and Bani to complete a work is 1 : 3, respectively.
Therefore, Anamika is able to finish a job in 40 days less than Bani. If they work together, they can complete the work in ______ days.
1. 20 2. 10 3. 15 4. 25

54. Simplify : $3ab \times (a+b)^{-1} \times (a^{-1}+b^{-1})$
1. $\frac{1}{(a+b)}$ 2. 1 3. (a + b) 4. 3

55. If $x+\frac{1}{x}=5$, then the value of $\frac{3x}{2x^2+2-5x}$ will be ______.
1. $\frac{5}{2}$ 2. $\frac{2}{5}$ 3. $\frac{3}{5}$ 4. $\frac{5}{3}$

56. If a sum on compound interest (compounded yearly) becomes three times in 4 years, then with the same interest rate, the sum will become 81 times in:
1. 12 years 2. 18 years 3. 15 years 4. 16 years

57. Simplify $2\frac{2}{3}+1\frac{4}{3}\times1\frac{6}{7}\div5\frac{1}{2}$.
1. $3\frac{3}{11}$ 2. $3\frac{5}{11}$ 3. $1\frac{3}{4}$ 4. $3\frac{4}{11}$

58. There is a 20% discount on a dozen pairs of shoes marked at ₹ 7,200. How many pair of shoes can be bought with ₹ 1,440?
1. 3 2. 5 3. 2 4. 4

59. In a right circular cylinder, the ratio of the curved surface to the total surface area is 3:7. Find the ratio of the height of the cylinder to the radius of its base.
1. 3 : 4 2. 2 : 3 3. 3 : 2 4. 4 : 3

60. The salaries of P and Q together amount to ₹ 1,20,000. P spends 95% of his salary and Q 85% of his. If their savings are the same, then what is P's salary?
1. ₹ 80,000 2. ₹ 72,000 3. ₹ 90,000 4. ₹ 60,000

61. The monthly income of Manisha was ₹ 1,20,000 and her monthly expenditure was ₹ 55,000. Next year, her income increased by 22% and her expenditure increase by 10%. Find

the percentage increase in her savings (correct to 2 decimal places).

1. 28.16% **2.** 26.25% **3.** 32.15% **4.** 30.08%

62. A fruit seller purchased 300 bananas at the rate of ₹ 18 per dozen and sold 200 bananas at the rate of ₹ 24 per dozen and the remaining bananas at the rate of ₹ 21 per dozen. What is his net profit percentage?

1. 28% **2.** 26% **3.** 27% **4.** $27\frac{7}{9}\%$

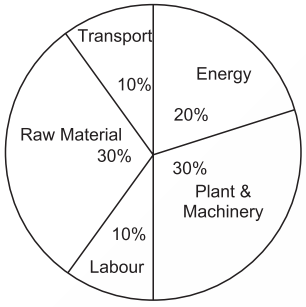
63. The table below gives the input/output ratio of particular firm over five consecutive years.

Year	Ratio Input/ Output
1996	0.8
1997	1.2
1998	0.9
1999	1.6
2000	1.8

If the inputs in the year 1998 was ₹ 1,200 crores and total output in the year 1998 and 2000 taken together was ₹ 2,500 crores, then what was the input of the firm in the year 2000?

1. ₹ 1,200 crores **2.** ₹ 2,100 crores
3. ₹ 3,200 crores **4.** ₹ 1,700 crores

64. The given pie chart shows the share of labour, raw material, energy, transportation cost, and plant & machinery in the total manufacturing cost of the company during a particular year. Study the pie chart and answer the question that follows.



The total central angle showing the share of energy, labour and transportation cost in the total manufacturing cost during the year was:

1. 162° **2.** 120° **3.** 144° **4.** 135°

65. When a certain number is multiplied by 11, the product is a six-digit number containing only 6s. Find the number that is multiplied by 11.

1. 79365 **2.** 78365 **3.** 60606 **4.** 61661

66. The table below gives the number of students from five different colleges who participated in the Olympiads of five different subjects during a given year.

Subjects	College A	College B	College C	College D	College E
Hindi	110	100	125	103	112
English	98	120	80	122	105
Maths	130	110	250	160	180
Science	100	100	150	200	80
GK	182	200	120	130	183

Which college had the maximum aggregate number of participants in all the five different subject Oplympiads taken together during that year?

1. College D **2.** College B **3.** College E **4.** College C

67. Under a sale offer, Tanvir was offered a 32% discount on the part of the marked price that was paid in cash, but had to add 1.2% on the part of the marked price paid through a credit card. If Tanvir paid 75% of the marked price in cash and the rest through a credit card, what percentage of the marked price was his total final payment?

1. 76.6% **2.** 75.9% **3.** 76.1% **4.** 76.3%

68. Find the length of the longest bamboo pole that can be placed in a room 16 m long, 12 m broad and 10 m high.

1. $10\sqrt{10}$ m **2.** $5\sqrt{5}$ m **3.** $10\sqrt{5}$ m **4.** $4\sqrt{5}$ m

69. The average weight of 8 persons increased by 2.5 kg when a new person comes in place of one of them weighting 45 kg. What is the weight of the new person?

1. 63 kg **2.** 60 kg **3.** 65 kg **4.** 62 kg

70. The mean proportional between 6 and another number is 30. What is that number?

1. 150 **2.** $5\sqrt{6}$ **3.** 180 **4.** $6\sqrt{5}$

71. A thief is spotted by a policeman from a distance of 480 m. When the policeman starts the chase, the thief also starts running. If the speed of the thief is 19 km/h and that of the policeman is 23 km/h, then how far would the thief have to run before he is overtaken?

1. 2080 m **2.** 2280 m **3.** 2290 m **4.** 2180 m

72. In what proportion must wheat at ₹ 20.40 per kg be mixed with wheat at ₹ 25.50 per kg, so that the mixture is worth ₹ 23.80 per kg?

1. 1 : 3 **2.** 2 : 1 **3.** 2 : 3 **4.** 1 : 2

73. What is the simplified value of

$$\cos^2(90°-\theta)-\left[\frac{\{\cos(90°-\theta)\cos\theta\}}{\cot\theta}\right]?$$

1. 4 **2.** 2 **3.** 0 **4.** 1

74. Find the length of diagonal (in cm) of a cube if the volume of the cube is 1331 cm^3.

1. $331\sqrt{3}$ **2.** $21\sqrt{3}$ **3.** $11\sqrt{3}$ **4.** $111\sqrt{3}$

75. If $x^4+\frac{1}{x^4}=14159$, then a possible value of $x+\frac{1}{x}$ is :

1. 69 **2.** 121 **3.** 81 **4.** 11

General Awareness

76. The Wadali Brothers are famous for which of the following?

1. Carnatic Music **2.** Chhattisgarhi Folk
3. Sufi Music **4.** Hindustani Classical Music

77. The important singers of _____ Gharana are Faiyyaz Khan, Latafat Hussein Khan and Dinkar Kakini.

1. Patiala **2.** Mewati **3.** Agra **4.** Benaras

78. Who among the following has written the autobiography 'In the afternoon of time: An autobiography'?

1. Harivansh Rai Bachchan **2.** Ruskin Bond
3. R K Lakshman **4.** R K Narayanan

79. 'Faster than Lightning: My Autobiography' is the story of which of the following international sprinters?

1. Usain Bolt **2.** Justin Gatlin
3. Christian Coleman **4.** Michael Norman

80. The proportion of a small increase in income which will lead to increased consumption expenditure is known as _____.

1. marginal consumption efficiency
2. marginal propensity to consume
3. marginal efficiency of income
4. marginal propensity to save

81. Who among the following is NOT a Padma Shri awardee 2022?

1. Mithali Raj **2.** Avani Lekhara
3. Sumit Antil **4.** Neeraj Chopra

82. The 'Karbi Anglong Agreement' signed in September 2021 is related to the ethnic community of the state of _____.

1. Sikkim **2.** Assam
3. Bihar **4.** Uttar Pradesh

83. What is the number of players in a cricket team on the ground?

1. 14 **2.** 10 **3.** 11 **4.** 12

84. Who among the following is the author of the book 'Sultry days'?
1. Anita Nair **2.** Nikita Singh
3. Shobhaa De **4.** Judy Balan

85. Which state does Brahmaputra river enters when it takes U turn at Namcha Barwa?
1. Mizoram 2. Assam
3. Nagaland 4. Arunachal Pradesh

86. Who shared the Nobel Prize in Physiology or Medicine 2005 with Barry J Marshall for the discovery of the Helicobacter pylori bacterium and its role in gastritis and peptic ulcer disease?
1. Paul Lauterbur **2.** J Robin Warren
3. Richard Axel **4.** Oliver Smithies

87. Kalamandalam Kalyanikutty Amma was an Indian Classical Dancer of _____ dance form.
1. Sattriya **2.** Mohiniyattam
3. Odissi **4.** Kathak

88. Which Indian dancer was awarded the French Palme D'or by the French Government in 1977?
1. Chitra Visweswaran **2.** Oopali Operajita.
3. Mallika Sarabhai **4.** Kavya Madhavan

89. Who received the Noble Prize in 1906,for recognition of the great merits of his theoretical and experimental investigations on the conduction of electricity by gases?
1. Andre-Marie Ampere **2.** Sir JJ Thomson
3. Albert Einstein **4.** Alessandro Volta

90. Who among the following has written 'Sangeet Kala Prakash'?
1. Prabhu Atre **2.** Pandit Jasraj
3. Ramakrishnabuva Vaze **4.** Pandit Kumar Gandharva

91. How many seats were reserved for the Scheduled Tribes in Lok Sabha for the 2019 general election?
1. 46 **2.** 43 **3.** 47 **4.** 45

92. What is the number of players playing in a team in a hockey match?
1. 12 **2.** 9 **3.** 10 **4.** 11

93. The name of which element is derived from an Anglo-Saxon word and its symbol comes from the Latin word 'Aurum'?
1. Argon **2.** Gold
3. Aluminium **4.** Silver

94. Sartaj Khan, Sarwar Khan, Swaroop Khan and Mame Khan are famous for which of the following?
1. Rajasthani folk music
2. Hindustani classical vocal
3. Playing percussion instruments
4. Playing string instruments

95. Famous Folk dancer Gulabo Sapera was conferred Padma Shri award for her contribution to which of the following dance forms?
1. Terah Tali **2.** Kalbeliya **3.** Ghoomar **4.** Bhavai

96. Which type of biome is located in Eastern North America, Western Europe, and Northeast Asia?
1. Tropical Rainforest Biomes **2.** Coniferous Forest Biomes
3. Aquatic Biomes **4.** Deciduous Forest Biomes

97. Which of the following mountains was formed when molten rock from the depths of the earth rose from the crust and piled up on its own?
1. Mount Kilimanjaro in Africa **2.** Rockies in North America
3. Ural mountain in Russia **4.** Alps in Europe

98. The Guru of Kuchipudi dance form 'Guru Vempati Chinna Satyam' who was instrumental in getting classical status to Kuchipudi was conferred by which of the following awards in 1998?
1. Padma Shri
2. Padma Vibhushan
3. Sangeet Natak Akademi Award
4. Padma Bhushan

99. Who among the following won Arjuna Award 2021 in Para Table Tennis discipline?
1. Achanta Sharath Kamal **2.** Manika Batra
3. Bhavina Patel **4.** Anusha Kutumbale

100. Which metal sulphate, composed of potassium, aluminium, and sulphate ions in the ratio 1 : 1 : 2, plays a role as a flame retardant, a mordant and an astringent?
1. Gypsum **2.** Potash alum
3. Epsom salts **4.** Celestite

Answer Key

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

Answers with Explanations

1. Option (3) is correct.
Wish someone good luck
Break a leg is used in informal English when we wish someone good luck, especially before a performance.

2. Option (3) is correct.
Miss an opportunity
If you say that someone has missed the boat, you mean that they have missed an opportunity and may not get another.

3. Option (4) is correct.
Grotesque
The synonym of comely is good looking and antonym is ugly. The synonym of grandiloquent is pompous and the antonym is simple. The synonym of gorgeous is beautiful and antonym is awful. The synonym of gregarious is sociable and antonym is unfriendly. The synonym of grotesque is ugly.

4. Option (2) is correct.
"Arraign" means to formally accuse someone of a crime in court, and "Prosecute" aligns closely with this legal context, involving the initiation and conduct of legal proceedings against someone. Option (1) refers to reaching a destination, option (3) involves the unjust treatment or harassment of a person or group, and option (4) relates to organising or setting things in order, none of which capture the legal or accusatory nature conveyed by "Arraign."

5. Option (4) is correct.
innovation, spark
The sentence speaks about creativity and passion. Tradition, stagnation and renovation will not bring creativity and passion. So options 1, 2, and 3 are inapt to the context.

6. Option (4) is correct.

Rohan was treated by Alfred's doctor for his fever.

The sentence given for conversion is: Alfred's doctor treated Rohan for his fever. This sentence is in active voice and in simple past tense. Rohan is the object of the active sentence. The object of the active sentence will be converted as the subject of the passive and appropriate 'be verb' ought to be used based on the tense and the number of the subject. Here Rohan is singular and the tense is in the past form, we use 'was'. We use the third form or the past participle form of the verb and add the conjunction 'by'. The subject of the active sentence is converted as the object of the passive.

7. Option (3) is correct.

ADCB

Sentence A is the first sentence as it introduces the man Birsa being seen in the forest by the people. Sentence D is the second sentence as it talks about the people's belief about the man when they saw him. Sentence C is the third sentence as it states the way the man had made use of the people's faith. Sentence B is the fourth sentence which shows the after effect of his declaration.

8. Option (3) is correct.

Students are sending the flyer for the international symposium to institutes all over the country.

The sentence given for conversion is: The flyer for the international symposium is being sent by students to institutes all over the country. The sentence is framed in present continuous tense and it is in passive voice. It has to be converted into active voice. The object of the passive construction has to be made the subject of the active voice. 'Students' is the object of the passive voice, which has to be made the subject of the active. The verb is 'is being sent' which is in the present continuous form. It has to be reframed as 'are sending' in the active construction. Now let us see what they are sending. They are sending flyers. It becomes the object of the active sentence. Then we add the noun phrase and the adverbial phrase.

9. Option (3) is correct.

In its August 1992 issue, the highly respected British Journal of Addiction described three unusual cases of carrot dependence.

In its August 1992 issue, the highly respected British Journal of Addiction describe three unusual cases of carrot dependence.

Look at the underlined part of the sentence and the bolded italics in the sentence. The underlined part of the sentence highlights the tense. The tense used in the sentence is simple past. The bolded part highlights the verb which is in simple present tense. When we denote a past action, the verb should be in past and especially when we denote the time of action, the verb must be in the simple past form and should not be in any other form of the tense. It cannot be present perfect, present perfect continuous, past perfect, or past perfect continuous. Option 1 is in past continuous form. Option 2 is grammatically wrong. Option 4 is also grammatically wrong.

10. Option (3) is correct.

Extremely happy

If you say that someone is on cloud nine, you are emphasizing that the person is very happy. Options 1, 2, and 4 are not the meaning of the idiom.

11. Option (2) is correct.

Weaken

The synonym of reinforce is to strengthen. The synonym of validate is to authenticate. The synonym of diverge is to deviate. The synonym of determine is to fix. The antonym of reinforce is to weaken.

12. Option (1) is correct.

Quear

The incorrectly spelt word is 'quear'. The correct spelling is 'queer'. The meaning of queer is strange or unusual.

13. Option (3) is correct.

Wrangle

The meaning of wrench is to pull or turn somebody/something strongly and suddenly. To wreck something means to destroy or ruin it. The meaning of WRANGLE is to dispute angrily or peevishly. Wrack is when something falls into disrepair.

14. Option (3) is correct.

Essential

The word underlined is dispensable, whose meaning is unessential. Acceptable is suitable. Urgent is vital. Popular is prevalent.

15. Option (2) is correct.

Concentratte

Options 1, 3, and 4 are correctly spelt. The incorrectly spelt word is 'concentratte'. The correct spelling is concentrate which means 'focus'.

16. Option (2) is correct.

Neither

Option 1 'not' will not fit in the context as we talk of two options right and wrong. Options 3, and 4 also will not fit in the context. As 'nor' is there in the sentence, the word that must fit in the context must be 'neither'.When offered a choice between two things you don't like, you might choose neither.

17. Option (3) is correct.

Opened the door

Let us have a look at the sentence given: The children opens the door silently, yesterday.

Let us have a look at the verb that is underlined and the adverb that is bolded. The verb is 'opens' that is in the simple present tense. The subject of the sentence is 'children' which is plural. So, the usage of the verb itself is wrong as it must be 'open' if the sentence is to be framed in the simple present tense. The adverb is 'yesterday', and hence the verb must be in simple past form 'opened'. Options 1, 2 and 4 are wrong as the verbs in the options are not in the past form. The verb in option 3 is in the simple past form.

18. Option (4) is correct.

Appreciate

The given word is 'admire'. The synonym of the word neglect is to disregard. Synonym of the word admonish is to rebuke. Synonym of the word forget is to disremember something.

19. Option (3) is correct.

Versatile

The meaning of vulnerable is weak and easy to hurt physically or emotionally. The meaning of innovative is the use of new methods and new ideas. The meaning of fragile is something that can be easily damaged or broken. Options 1, 2, and 4 are not the one word substitute of 'having many skills'.

20. Option (2) is correct.

Convict

The synonym of the word exonerate is to forgive or pardon. Falsity is deceptiveness. Belief is trust. Difficult means tough. Options 1, 3, and 4 cannot be the antonym of 'exonerate'.

21. Option (1) is correct.

Massive

The sentence speaks about a hall named Hall of Dharma and a dome that is seen in the hall. The word that has to fit in the blank must be describing the dome. Words in option 2, 3, and 4 will not be the correct descriptions, and the words are inapt. The correct word is massive.

22. Option (4) is correct.

Elegance

The dome and its style is further described in the sentence and the dome is considered to be feminine. So, words in options 1, 2, and 3 are wrong choices, and the word 'elegance' is the right option.

23. Option (4) is correct.

Circular

Already, in the first sentence of the passage, the hall was described to be circular. Here again another hall is described and we find the adverb 'also', and hence the answer is circular and the other words are inapt.

24. Option (3) is correct.

Equals

The sentence speaks about the rishis who were there. We come across the phrase without a moderating 'head'. So, option 3 'equals' is the appropriate word to be filled in the blank.

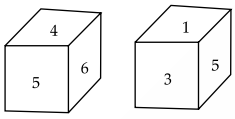
25. Option (2) is correct.

Expression

The sentence is about debating issues and freedom of doing something. We never say freedom of depression, freedom of running, or freedom of inspiration. It is freedom of expression, and hence expression is the appropriate word to be filled in the blank.

26. Option (3) is correct.

Explanation:



Write the numbers in a clockwise direction, starting from 5, as it is common to both dice.

Dice 1 : 5-4-6 opposite faces

Dice 2 : 5-3-1 opposite faces

Hence, 6 will be opposite to 1.

27. Option (2) is correct.

Explanation: Given that: TVEQ, PBWA, ?, HNGU, DTYE

T	V	E	Q
−4	+6	−8	+10
P	B	W	A
−4	+6	−8	+10
L	H	O	K
−4	+6	−8	+10
H	N	G	U
−4	+6	−8	+10
D	T	Y	E

28. Option (2) is correct.

Explanation:

Given that: Tis: Sit:: Tip: Pit:: Ten:?

Logic:

Tis

←

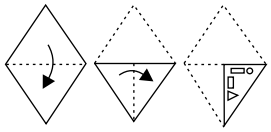
Reverse order: Sit

Similarly,

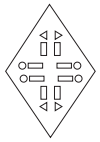
Ten----will be --- Net

29. Option (2) is correct.

Explanation:



The logic of symmetry will be followed here.



30. Option (4) is correct.

Explanation:

Given that: 9 : 126 :: ? : 238 :: 21 : 294

9:126	::	?:238	::	21:294
126 ÷ 14 = 9		238 ÷ 14 = 17		294 ÷ 14 = 21

31. Option (2) is correct.

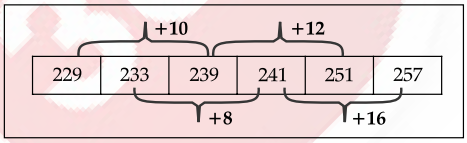
Explanation:

4. Abbreviation	3. Abduct	2. Absolutely	1. Absorption	5. Accurate

32. Option (1) is correct.

Explanation:

Given that: 229, 233, 239, 241, 251, ?



33. Option (4) is correct.

Explanation:

Given that: SIMPLE : ISNKEL :: PUBLIC : UPYOCI :: MINUTE : ?

S	I	M	P	L	E
I	S	opposite N	opposite K	E	L

P	U	B	L	I	C
U	P	opposite Y	opposite O	C	I

M	I	N	U	T	E
I	M	opposite M	opposite F	E	T

34. Option (3) is correct.

Explanation:

Logic: In a row → Second number × 3.5 + First number = Third number

In first row → 6, 8, 34 ⇒ 8 × 3.5 + 6 = 34

In second row → 3, 2, 10 ⇒ 2 × 3.5 + 3 = 10

Similarly, In third row → 11, 18, ? ⇒ 18 × 3.5 + 11 = 74.

35. Option (1) is correct.

Explanation:

1. Draft	5. Dragon	3. Drain	2. Drake	4. Drape

36. Option (3) is correct.

Explanation:

Given that: 14*5*55*74*12*4*3

Upon checking option 3,

×, +, –, =, ×, +

14 × 5 + 55 – 74 = 12 × 4 + 3

Using BODMAS, we get

70 + 55 – 74 = 48 + 3

125 – 74 = 51

51 = 51

37. Option (2) is correct.

Explanation:

Given that: "CASTLE" is written as "BYPUNH

C	A	S	T	L	E
–1	–2	–3	+1	+2	+3
B	Y	P	U	N	H

"DEMAND" is written as "CCJBPG"

D	E	M	A	N	D
–1	–2	–3	+1	+2	+3
C	C	J	B	P	G

"EITHER" can be written as:

E	I	T	H	E	R
–1	–2	–3	+1	+2	+3
D	G	Q	I	G	U

38. Option (1) is correct.

Explanation:

ToMorRoW | M N

Logic: In the mirror image, left becomes right, and right becomes left. Hence,

WoЯroMoT

39. Option (1) is correct.

Explanation:

gJP93R | P Q

Logic: In the mirror image, left becomes right, and right becomes left. Hence,

Я ε ϱ ϥ l g

40. Option (3) is correct.

Explanation:

Given that: 5, 6, ?, 45, 184, 925

5 × 1 + 1 = 6

6 × 2 + 2 = 14

14 × 3 + 3 = 45

45 × 4 + 4 = 184

184 × 5 + 5 = 925

41. Option (2) is correct.

Explanation: Given that: (342, 19, 60)

Logic:

12 × 60 ÷ 2 = 12 × 30 = 360

(342, 19, 36)

19 × 36 ÷ 2 = 19 × 18 = 342

42. Option (4) is correct.

Explanation:

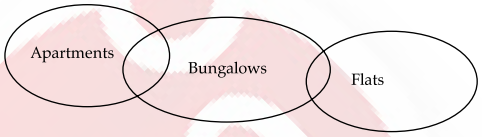
fa38j5 | M N

Logic: In the mirror image, left becomes right, and right becomes left. Hence,

ƨ į 8 ε ɐ f

43. Option (4) is correct.

Explanation:



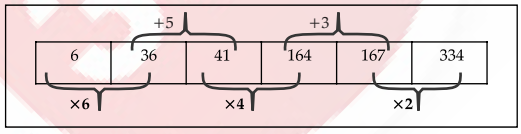
(1) From the diagram, there is no definite relation between apartments and flats.

(2) From the diagram, some bungalows are flats.

44. Option (4) is correct.

Explanation:

Given that: 6, 36, 41, ?, 167, 334



45. Option (2) is correct.

Explanation:

Given that: 16*4*8*10*2*52

Upon checking option 2,

–, +, ×, ÷, =

16 – 4 + 8 × 10 ÷ 2 = 52

Using BODMAS, we get

16 – 4 + 8 × 5 = 52

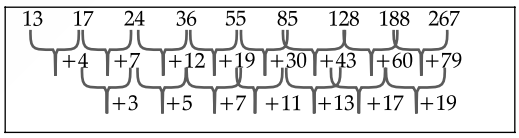
16 – 4 + 40 = 52

56 – 4 = 52

52 = 52

46. Option (1) is correct.

Explanation:



47. Option (3) is correct.

Explanation:

Given that: KGCJ, JEZF, ? , HATX, GYQT

K	G	C	J
–1	–2	–3	–4
J	E	Z	F
–1	–2	–3	–4

I	C	W	B
↓–1	↓–2	↓–3	↓–4
H	A	T	X
↓–1	↓–2	↓–3	↓–4
G	Y	Q	T

48. Option (4) is correct.

Explanation:

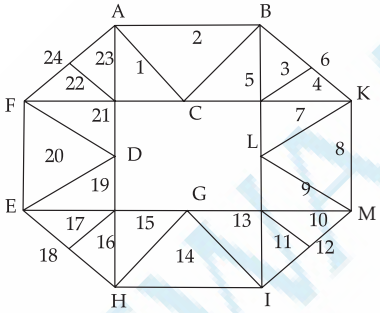
4	9	22	9	4	5
D	I	V	I	D	E
×2	×2	×2	×2	×2	×2
8	18	44	18	8	10
–1	–1	–1	–1	–1	–1
7	17	43	17	7	9

Similarly,

A	D	D	I	T	I	O	N
1	4	4	9	20	9	15	14
×2	×2	×2	×2	×2	×2	×2	×2
2	8	8	18	40	18	30	28
–1	–1	–1	–1	–1	–1	–1	–1
1	7	7	17	39	17	29	27

49. Option (3) is correct.

Explanation:



In addition of the above, following traingles can be seen:
AFC, BCK, KBL, MLI, MIG, HEG, HED, DFA.
Hence, total triangles are 24 + 8 = 32.

50. Option (2) is correct.

Explanation: The pattern followed here is:

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

So, $(6 + 2)^2 = 64$

$(5 + 2)^2 = 49 \neq 36$

$(11 + 2)^2 = 169$

$(12 + 2)^2 = 196$

51. Option (3) is correct.

Given that ΔABC and ΔPQR are similar triangle.

Ar. ΔABC = 64 cm^2

Ar. ΔPQR = 121 cm^2

QR = 15.4 cm

Using similar triangle property,

$$\Rightarrow \frac{\text{Ar. }\Delta ABC}{\text{Ar. }\Delta PQR} = \left(\frac{BC}{QR}\right)^2$$

$$\Rightarrow \frac{64}{121} = \left(\frac{BC}{15.4}\right)^2$$

$\Rightarrow$ BC = 11.2 cm

52. Option (3) is correct.

According to the question,

$$\text{Weighted average} = \frac{8\times4+6\times2+5\times3+8\times1}{100}$$

$$= 0.67$$

53. Option (3) is correct.

Ratio of time taken by Anamika and Bani = 1 : 3

According to the question,

$3x - x = 40$

$\Rightarrow x = 20$

So, time taken by Anamika = 20 days

And time taken by Bani = 60 days

Let total work = LCM (20, 60) = 60 unit

So, efficiency of Anamika = $\frac{60}{20} = 3\frac{\text{unit}}{\text{day}}$

Efficiency of Bani = $\frac{60}{60} = 1\frac{\text{unit}}{\text{day}}$

So, time taken by them together = $\frac{60}{3+1} = 15$ days

54. Option (4) is correct.

Given: $3ab \times (a+b)^{-1} \times (a^{-1}+b^{-1})$

$$= 3ab \times \frac{1}{a+b} \times \left(\frac{1}{a}+\frac{1}{b}\right)$$

$$= 3ab \times \frac{1}{a+b} \times \left(\frac{a+b}{ab}\right) = 3$$

55. Option (3) is correct.

Given, $x + \frac{1}{x} = 5$

So, the value of $\frac{3x}{2x^2+2-5x}$, $= \frac{3}{2x+\frac{2}{x}-5}$

[dividing numerator and denominator by x]

$$= \frac{3}{2\left(x+\frac{1}{x}\right)-5} = \frac{3}{2(5)-5} = \frac{3}{5}$$

56. Option (4) is correct.

Given that the sum of amount becomes three times in 4 years.

We know that compound interest follows GP for every equal time duration. i.e.,

P ——— 3P ——— 9P ——— 27P ——— 81P

4 years 4 years 4 years 4 years

So, total time required = 4 + 4 + 4 + 4 = 16 years

57. Option (2) is correct.

Value of $2\frac{2}{3}+1\frac{4}{3}\times1\frac{6}{7}\div5\frac{1}{2}$,

$$= \frac{8}{3}+\frac{7}{3}\times\frac{13}{7}\div\frac{11}{2}$$

$$= \frac{8}{3} + \frac{7}{3} \times \frac{13}{7} \times \frac{2}{11}$$

$$= \frac{8}{3} + \frac{26}{33}$$

$$= \frac{114}{33} = \frac{38}{11} = 3\frac{5}{11}$$

58. Option (1) is correct.

Given,

Marked price of a dozen pairs of shoes = ₹ 7200

So, marked Price of one pairs of shoes

$$= \frac{7200}{12} = Rs.600$$

So, selling price of one pairs of shoes

$$= 600 \times \frac{80}{100} = \text{Rs. } 480$$

Required number of pairs of shoes

$$= \frac{1440}{480} = 3$$

59. Option (1) is correct.

Given that ratio between curved surface area to total surface area = 3 : 7

We know, curved surface area of a cylinder

$$= 2\pi rh$$

And the total surface area

$$= 2\pi rh + 2\pi r^2 = 2\pi r(h + r)$$

So, $\frac{2\pi rh}{2\pi r(h+r)} = \frac{3}{7}$

$\Rightarrow \quad 7h = 3h + 3r$

$\Rightarrow \quad \frac{h}{r} = \frac{3}{4}$

60. Option (3) is correct.

Given,

Total salary of P and Q = ₹ 120000

Let salary of P = ₹ x

And salary of Q = ₹ $120000 - x$

According to the question,

$$x \times \frac{5}{100} = (120000 - x) \times \frac{15}{100}$$

$\Rightarrow \quad 5x = 1800000 - 15x$

$\Rightarrow \quad x = 90000$

So, salary of P = ₹ 90000

61. Option (3) is correct.

Given,

Monthly income of Manisha = ₹ 120000

And monthly expenditure = ₹ 55000

So, savings = 120000 – 55000 = ₹ 65000

According to the question,

Next year her salary = $120000 \times \frac{122}{100}$ = ₹ 146400

And the new expenditure = $55000 \times \frac{110}{100}$ = ₹ 60500

So, new savings = 146400 – 60500 = ₹ 85900

Now, required percentage increase

$$= \frac{85900 - 65000}{65000} \times 100 = 32.15\%$$

62. Option (4) is correct.

The cost price of 300 bananas

$$= \frac{18}{12} \times 300 = \text{Rs. } 450$$

And selling price of 300 bananas

$$= \frac{24}{12} \times 200 + \frac{21}{12} \times 100 = 400 + 175 = Rs.575$$

So, the net profit percentage

$$= \frac{575 - 450}{450} \times 100 = 27\frac{7}{9}\%$$

63. Option (2) is correct.

Ratio of input and output in 1998 = 0.9

And input in 1998 = ₹ 1200 cr

So, $\frac{\text{input}}{\text{output}} = 0.9$

$\Rightarrow \quad \frac{1200}{\text{output}} = 0.9$

$\Rightarrow$ output = $\frac{4000}{3}$

Also given that total output in 1998 and 2000

= ₹ 2500 cr

Output in 2000 = $2500 - \frac{4000}{3} = \frac{3500}{3}$

According to the question,

$\Rightarrow \quad \frac{\text{input}}{\text{output}} = 1.8$

$\Rightarrow \quad \frac{\text{input}}{\frac{3500}{3}} = 1.8$

$\Rightarrow \quad$ input = $\frac{1.8 \times 3500}{3} = 2100$

So, input of the firm in the year 2000 = ₹ 2100 cr

64. Option (3) is correct.

Given in pie chart,

Share of energy cost = 20%

Share of labour cost = 10%

Share of transportation cost = 10%

So, total cost of above three = 20 + 10 + 10 = 40%

So, required angle = $360 \times \frac{40}{100} = 144°$

65. Option (3) is correct.

From given options, 60606 is the only number which product with 11 contains only 6s.

So, option (3) is correct.

66. Option (4) is correct.

Using, aggregate number of students

$$= \frac{\text{sum of all the students}}{\text{number of subjects}}$$

Aggregate number of participants from college A = 124

Aggregate number of participants from college B = 126

Aggregate number of participants from college C = 145

Aggregate number of participants from college D = 143

Aggregate number of participants from college E = 132

So, college C has maximum aggregate number of students.

67. Option (4) is correct.

Let the marked price = ₹ 100

According to the question,

Amount paid by Tanvir

$$= 75 \times \frac{100-32}{100} + 25 + 25 \times \frac{1.2}{100} = Rs.76.3$$

So, required percentage = 76.3%

68. Option (3) is correct.

Given,

L = 16 m

B = 12 m

And H = 10 m

Longest possible length of Bamboo

= diagonal of the room

$= \sqrt{16^2 + 12^2 + 10^2}$

$= \sqrt{256 + 144 + 100} = \sqrt{500} = 10\sqrt{5}$ m

69. Option (3) is correct.

Let the weight of new person = x kg

According to the question,

$x - 45 = 8 \times 2.5$

$\Rightarrow \quad x = 65$

So, the weight of new person = 65 kg

70. Option (1) is correct.

According to the question,

$30 = \sqrt{6 \times x}$

$\Rightarrow \quad 6x = 900$

$\Rightarrow \quad x = 150$

71. Option (2) is correct.

Distance between policeman and thief = 480 m

Speed of policeman = 23 km/h

Speed of thief = 19 km/h

Relative speed = 23 – 19 = 4 km/h

$$= 4 \times \frac{5}{18} = \frac{10}{9} \text{ m/s}$$

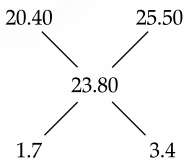
Time taken by policeman to catch the thief

$$= \frac{480}{\frac{10}{9}} = 432 \text{ s}$$

So, required distance $= 19 \times \frac{5}{18} \times 432 = 2280$ m

72. Option (4) is correct.

Using mixture.



or 1 : 2

So, these two type of wheat must be mixed in ratio of 1 : 2.

So, option 4 is correct.

73. Option (3) is correct.

Value of $\cos^2(90-\theta) - \left[\frac{\cos(90-\theta)\cos\theta}{\cot\theta}\right]$

$= \sin^2\theta - \left[\frac{\sin\theta\cos\theta}{\frac{\cos\theta}{\sin\theta}}\right]$

$= \sin^2\theta - \sin^2\theta$

$= 0$

74. Option (3) is correct.

Given that the volume of a cube = 1331 cm^3

Let the edge of cube = a cm

So, $a^3 = 1331$

$\Rightarrow \quad a = 11$ cm

So, diagonal of a cube = $\sqrt{3}a = 11\sqrt{3}$ cm

75. Option (4) is correct.

Given, $x^4 + \frac{1}{x^4} = 14159$

$\Rightarrow \left(x^2 + \frac{1}{x^2}\right)^2 = 14159 + 2$ [using, $(a+b)^2 = a^2 + b^2 + 2ab$]

$\Rightarrow \left(x^2 + \frac{1}{x^2}\right) = \sqrt{14161} = 119$

$\Rightarrow \left(x + \frac{1}{x}\right)^2 = 119 + 2$

$\Rightarrow \quad x + \frac{1}{x} = \sqrt{121}$

$\Rightarrow \quad x + \frac{1}{x} = 11$

76. Option (3) is correct.

The Wadali Brothers are famous for Sufi music. The Wadali brothers are a music duo of Puranchand Wadali and Pyarelal Wadali from Amritsar, India. Pyarelal Wadali, the younger of the two had passed away in 2018. Sufi music is a devotional form of music and Qawwali is the best known form of Sufi music.

Carnatic music is one of two sub genres of Indian classical music and is associated with Karnataka, Kerala, Andhra Pradesh, Telangana, Tamil Nadu, and Sri Lanka. The focus of Carnatic music is on vocals.

Hindustani classical music belongs to the Northern India and is played in instruments like the violin, sitar and sarod.

77. Option (3) is correct.

The important singers of Agra Gharana are Faiyyaz Khan, Latafat Hussein Khan and Dinkar Kakini. Ustad Faiyyaz Khan was an Indian classical vocalist. He was awarded the title of Aftab-e-Mausiqi (the Sun of Music) by the Maharaja of Mysore. Latafat Hussein Khan was a music composer and the youngest son of Altaf Hussain Khan of Agra Gharana.

Pandit Dinkar Kakini was a renowned vocalist of Agra Gharana.

Agra Gharana is known for giving importance on developing forcefulness and deepness in the voice so that the notes are powerful and resonant. This gharana was founded by Haji Sujan Khan and Ustad Ghagghe Khuda Baksh.

78. Option (1) is correct.

Harivansh Rai Bachchan has written the autobiography 'In the afternoon of time: An autobiography.' Harivansh Rai Bachchan was a Hindi poet and is best known for his work 'Madhushala.' He was a writer of the Nayi Kavita literary movement and was also honoured with Padma Bhushan for his contribution to Hindi literature. He was the father of legendary actor Amitabh Bachchan.

Lone Fox dancing: My Autobiography is the book by Ruskin Bond. Ruskin Bond is an Indian author who is famous for his short stories, novels for children, and essays. Some of his famous works include- The Room on the Roof, A flight of Pigeons, and the blue umbrella.

The Tunnel of Time is an autobiography of RK Lakshman. R K Lakshman is an Indian cartoonist best known for his creation 'The common man' for 'The Times of India.'

R K Narayanan is an Indian novelist and writer in the English language. Some of his notable works are Swami and Friends, The English Teacher, The Guide. He also published the shortened version of The Ramayana and The Mahabharata.

79. Option (1) is correct.

'Faster than Lightning: My Autobiography' is the story of Usain Bolt. Usain Bolt is a world famous Jamaican sprinter who is a record holder in 100 m, 200 m, and 4 × 100 m categories. He is an eight time Olympic gold medalist and is known as 'Lightning Bolt.'

Justin Gatlin is a retired American sprinter and is the most medalled 100 m runner at the major championships.

Christian Coleman is an American professional track and field sprinter competing in 100m and 200m category.

Michael Norman is an American sprinter with the world's best time in the indoor 400 meters at 44.52 seconds. He was a world champion in 400 meters and 4 × 400 meter relay in the year 2022.

80. Option (2) is correct.

The proportion of a small increase in income which will lead to increased consumption expenditure is known as Marginal Propensity to Consume (MPC). It forms an important concept of Keynesian macroeconomic theory. It measures the proportionate rise in consumption with increase in Income. It is dependent on income level. MPC is depicted with the help of a consumption line which is a slope that has been created by plotting the change in consumption versus the change in income on the vertical '*y*' and horizontal 'x' axis respectively.

81. Option (1) is correct.

Mithali Raj is not a Padma Shri awardee 2022. She is an Indian cricketer and former captain of India's women's cricket team. She is considered as one of the greatest players in woman's cricket. She has been honoured with Arjuna Award in 2003, Padma Shri in 2015, and Major Dhyan Chand Khel Ratna in 2021.

Avani Lekhara is an Indian Paralympic rifle shooter from Jaipur. She is the first woman to win multiple medals at a Paralympic event.

Sumit Antil is an Indian Paralympic javelin thrower from Sonipat, Haryana.

Neeraj Chopra is a track and field athlete who won the Olympic gold in Javelin throw. He belongs to Khandara, Haryana.

82. Option (2) is correct.

The 'Karbi Anglong Agreement' signed in September 2021 is related to the ethnic community of the state of Assam. The agreement was signed among three parties- Central government, state government, and five insurgent groups of Assam. As a part of this agreement, the five militant groups laid down their arms and started practising a civilian life. The Central government allocated a package of 1000 crores for the development of Karbi areas. The Karbi Anglong Autonomous council (KAAC) was provided more autonomy and Karbi Welfare council was to be established by the state government of Assam.

Karbi Anglong is located in Central Assam and is a home to Karbi, Dimasa, Bodo, Kuki, Hmar, Tiwa, Garo, Man (Tai speakers), Rengma Naga tribes.

83. Option (3) is correct.

There are 11 players in a cricket team on the ground. The pitch lies in the center of cricket field and is rectangular in shape with an area of 22 meters. Cricket is a bat and ball sport in which two teams of 11 players each play on the field with a bat and ball. Of the two teams, one is the batting side and other is bowling. Two batsman from the batting side are on the pitch to score runs against the opposite team. The goal of opposite team is to knock the batsmen out and prevent them from setting a good run chase target.

There are two creases at the either end of pitch and three wooden stumps or wickets are placed in either of them. Cricket can be played in the One Day International (ODI), Test match and T-20 format.

84. Option (3) is correct.

Shobha De is the author of the book 'Sultry Days'. She is an Indian novelist and is also referred to as 'Jack Collins' of India. Some of her works are Socialite Evenings, Starry Nights, Srilaaji – Diary of a Marwari Matriarch, Simon & Schuster, and Lockdown Laison etc.

Anita Nair is an Indian novelist whose famous works are A better man, Ladies Coup, Mistress, Lessons in forgetting, and Cut like Wound.

Nikita Singh is an Indian writer who is known for her works like Like a Love Song, The Reason is You, Every Time It Rains, Like a Love Song, The Promise and After All This Time etc.

Judy Balan is a comedy Indian writer who is known for her book - Two Fates: The Story of My Divorce. She is the author of the blog- Woman and a Quarter.

85. Option (4) is correct.

Brahmaputra river enter Arunachal Pradesh when it takes U turn at Namcha Barwa. Brahmaputra river originates in the Chemayungdung glacier of the Kailash range near the Mansarovar lake. The river is known as the Tsang Po in Tibet and Jamuna in Bangladesh. It enters India west of Sadiya town in Arunachal Pradesh. In India, it flows through Assam and Arunachal Pradesh and goes on to flow through Bangladesh before joining Bay of Bengal. The river is called Siang/Dihang River in Arunachali, Luit in Assamese.

Some of its tributaries are Burhi Dihing and Dhansari (South), Subansiri, Kameng, Manas and Sankosh.

86. Option (2) is correct.

J Robin Warren shared the Nobel Prize in Physiology or Medicine 2005 with Barry J Marshall for the discovery of the Helicobacter pylori bacterium and its role in gastritis and peptic ulcer disease. The 2022 Nobel Prize in Physiology or Medicine was awarded to Svante Paabo "for his discoveries concerning the genomes of extinct hominins and human evolution".

The Nobel Prize in Physiology or Medicine is awarded by the Nobel Assembly at Karolinska Institutet, Stockholm, Sweden. Physiology or medicine was the third prize area mentioned in Alfred Nobel's will. Nobel Prize are the five prizes in the

categories of Physics, Chemistry, Physiology or Medicine, Literature, and Peace, that are given every year to those who, during the preceding year, have conferred the greatest benefit to humankind. This was a part of Alfred Nobel's will. The Nobel Prize in Economics was created later in the year 1968.

87. Option (2) is correct.

Kalamandalam Kalyanikutty Amma was an Indian Classical Dancer of Mohiniyattam dance form. She is also the author of the book 'Mohiniyattam - History and Dance Structure.'

Mohiniyattam is mentioned in the ancient text of Vyavaharmala and it is a classical solo dance form of Kerala. Mohiniyattam is dance of Mohini, who is considered to be an incarnation of Lord Vishnu. The reference of this dance form can be found in Vyavaharamala written in 1709 by Mazhamagalam Narayanan Namputiri. It is a Lasya type of dance that showcases a more graceful, gentle and feminine form of dancing.

Sattriya is a classical dance form of Assam. It was introduced by Sankaradeva as a medium for propagation of the Vaishnava faith. It is governed by strictly laid down principles in respect of hasta mudras, footworks, aharyas, music.

Kathak is the classical dance of Uttar Pradesh and is one of the eight major forms of Indian classical dance.

The Odissi dance form is a traditional dance-drama genre of performance art that originated in temples of Odisha. In this dance form, artists and musicians enact and dance on a story, a spiritual message or devotional poem from the Hindu texts, using body movements, mudras, abhinaya, and symbolic costumes.

88. Option (3) is correct.

Mallika Sarabhai was awarded the French Palme D'or by the French Government in 1977. "French Palme D'or" is the highest civilian award by the French Government. Mallika Sarabhai is an Indian classical dancer with expertise in Kuchipudi and Bharatnatyam. As a dancer and performer, she used her art for social change and transformation. She is also a Padma Bhushan awardee.

Chitra Visweswaran is a Bharatnatyam dancer who runs Chidambaram Academy of Performing Arts, in Chennai. She is a Padma Shri awardee.

Oopali Operajita is a classical Odissi and Bharatanatyam dancer and choreographer.

Kavya Madhavan is a Malayalam Indian actress.

89. Option (2) is correct.

Sir JJ Thomson received the Noble Prize in Physics in the year 1906, for recognition of the great merits of his theoretical and experimental investigations on the conduction of electricity by gases. Sir Thomson was a British Physicist who is known for the discovery of electron. He is credited for discovery of isotopes, electromagnetic mass, electromagnetic mass to name a few.

Andre-Marie Ampere was a French Physicist and mathematician. He is the founder of electrodynamics, solenoid (a term coined by him) and the electrical telegraph. The SI unit of electric current 'Ampere' is named after him.

Albert Einstein was a German physicist. He is one of the greatest physicists of all the times. He is known for his theory of relativity, mass–energy equivalence formula to name a few. He was awarded Nobel Prize in Physics in 1921 for his discovery of the law of the photoelectric effect.

Alessandro Volta was an Italian Physicist and Chemist who is known for the invention of electric battery and discovery of methane. The SI unit of electric potential is named in his honour as the volt.

90. Option (3) is correct.

Ramakrishnabuva Vaze has written 'Sangeet Kala Prakash'. Vaze was a Hindustani classical musician and was associated with Gwalior Gharana. Sangeet Kala Prakash is a detailed compilation of different Ragas and their technical details, along with biographical notes of contemporary musicians.

Prabhu Atre is an Indian classical vocalist from Kirana Gharana. She has been honoured with Padma Shri, Padma Bhushan, and Padma Vibhushan by the Government of India.

Pandit Jasraj was an Indian classical vocalist belonging to the Mewati gharana musical apprenticeship lineage.

Pandit Kumar Gandharva was an Indian classical singer who is known for his unique vocal style. He was never bound by any gharana and tradition related to it.

91. Option (3) is correct.

47 seats were reserved for the Scheduled Tribes in Lok Sabha for the 2019 general election. The 2019 elections were held in seven phases from 11 April to 19th May 2019 to elect the members of 17th Lok Sabha. The Bhartiya Janta Party (BJP) won the elections with it receiving 37.36% of votes. The elections in India are conducted by the Election Commission of India, which is a constitutional body and has the authority under Article 324 and subsequently enacted Representation of the People Act.

92. Option (4) is correct.

There are 11 players in a team in a hockey match. In hickey, each side has 11 players in its team. There ten field players and one is the goal keeper. There are Attackers, midfielders, defenders, and goalkeepers. The attackers score the maximum goals. Midfielders are multi-tasking runners who play both offensive and defence. Forward are the players who obtain the most points and they spend the majority of the game between midfield and the goalkeeper's post.

Fullbacks are the ones who are completely in the rear and their responsibility to play defence.

93. Option (2) is correct.

The name of gold is derived from an Anglo-Saxon word and its symbol comes from the Latin word 'Aurum'. It is an element with symbol 'Au' coming from the Latin word Aurum and it has the atomic number 79. Chemically, it is a '*d* block transition' element. It is a part of 'period 6' and group 11 in the periodic table.

Argon is a noble gas with symbol 'Ar' and atomic number 18. It is the third most abundant gas in the Earth's atmosphere. It is a 'p' block element and lies in group 18 and period 3.

Aluminium is a chemical element with symbol 'Al' and atomic number 13. It is a 'p block' element and lies in 3rd period and group 13. It visually resembles silver and is soft, non-magnetic and ductile.

Silver is a chemical element with symbol 'Ag' and 'atomic number 47.' It is a '*d* block' element and is present in 5th period and 11th group. It has the highest electrical conductivity, thermal conductivity, and reflectivity.

94. Option (1) is correct.

Sartaj Khan, Sarwar Khan, Swaroop Khan and Mame Khan are famous for Rajasthani classical music. Sartaj and Sarwar are 12 years and 11 years old. They are the young players who have made a position in Rajasthani folk singing.

Swaroop Khan is a Rajasthani folk singer who featured in Indian Idol. He is popular for Bollywood songs like "Tharki Chokro" in PK and Ghoomar in Padmaavat to name a few.

Mame Khan is an Indian playback and folk singer from Rajasthan. He has sung for a number of Bollywood movies and was a part of Coke Studio. He was awarded the Global Indian Music Academy Awards 2016.

95. Option (2) is correct.

Famous Folk dancer Gulabo Sapera was conferred Padma Shri award for her contribution to Kalbeliya. Gulabo Sapera is an Indian dancer from Rajasthan. She was honoured with Bharat Gaurav Award 2021.

Kalbelia dance is an integral part of Kalbelian culture. In this, women dancers wear long black flowing skirts. They twirl and replicate the movement of a serpent. The upper body cloth is called as angrakhi and a headcloth which is known as Odhani. The males play musical instruments such as been, duffle, khanjari, morchang, and dholak to create rhythm.

Tertali or teratali is a folk dance of Kamar tribes from Rajasthan. In this, generally two or three woman sit on the ground with Majiras tied to their body. The head is covered with petha or hat.

Ghoomar is a traditional folk dance of Rajasthan performed by the women of Bhil tribe who performed it to worship Goddess Saraswati. Veiled women wearing ghagras perform this dance while moving in a circle.

Bhavai is a folk dance of Rajasthan in which male or female performers balance earthen pots or metals on their head while perching their feet on the top of a glass bottle, on the edge of sword, rim of a thali or broken glass. The first Bhavai Dancer of India was Mrs. Krishna Vyas Chhangani.

96. Option (4) is correct.

Deciduous Forest Biomes is located in Eastern North America, Western Europe, and Northeast Asia. These forests are characterized by trees of plants shedding their leaves annually. They can be temperate deciduous forests, tropical and subtropical deciduous forests (dry forests). The trees can change their colours from luscious green to dull and dry brown, and eventually drop their leaves throughout the fall season. Oak, maple, beech, hickory and chestnut grow in these forests.

97. Option (1) is correct.

Mount Kilimanjaro in Africa was formed when molten rock from the depths of the earth rose from the crust and piled up on its own. Mount Kilimanjaro is the highest mountain in Africa and a dormant volcano in Tanzania. It has three volcanic cones- Kibo, Mawenzi, and Shira and is the fourth most topographically prominent peak on Earth.

Ural mountain range is in Eurasia and runs from Russia to Kazakhstan. The region is one of the largest centres of metallurgy and heavy industry production in Russia. They are old fold mountain ranges.

Alps mountain range is young fold mountains. They are the highest and extensive mountain range in Europe and were formed approximately 65 million years ago.

Rockies are major mountain range and the largest mountain system in North America. They run from stretch from northern Alberta and British Columbia in Canada southward to New Mexico in the United States. They were formed 80 million to 55 million years ago.

98. Option (4) is correct.

The Guru of Kuchipudi dance form 'Guru Vempati Chinna Satyam' who was instrumental in getting classical status to Kuchipudi was conferred Padma Bhushan in 1998. He started the Kuchipudi Art Academy at Madras in 1963. He was the founder of Vekatarama Nataya Mandali, an organization which played a pivotal Role in training and propagating Kuchipudi dance.

Kuchipudi is one of the eight major Indian classical dances and originates from Kuchipudi village in Andhra Pradesh. The roots of this dance form are in Natya Shastra. It is believed that Tirtha Narayana Yati and his disciple Siddhendra Yogi founded the systemised and modern version of Kuchipudi in the 17th century.

99. Option (3) is correct.

Bhavina Patel won Arjuna Award 2021 in Para Table Tennis discipline. She is a Paralympic table tennis player from Mehsana, Gujarat. She won a silver medal in CWG 2022 and 2020 Summer Paralympics in Tokyo.

Achanta Sharath Kamal is an Indian table tennis player from Chennai, Tamil Nadu. He is the first table tennis player to become ten times Senior National Champion. He has been honoured with Padma Shri and Khel Ratna award.

Manika Batra is an Indian table tennis player from Delhi. She was awarded with Major Dhyan Chand Khel Ratna award in the year 2020.

Anusha Kutumbale is an Indian table Tennis player from Indore, Madhya Pradesh.

100. Option (2) is correct.

Potash alum is composed of potassium, aluminium, and sulphate ions in the ratio 1 : 1 : 2, plays a role as a flame retardant, a mordant and an astringent. It is also used in Iron and Steel Dissolving, gourmet food, pigmentation of the lake. It is usually extracted from a mineral called alunite. It is a colourless solid soluble in water.

Gypsum is a soft sulphate mineral composed of calcium sulfate dihydrate. It is an evaporite mineral found in layered sedimentary deposits. It is used for the manufacture of wallboard, cement, plaster of Paris, soil conditioning, a hardening retarder in portland cement.

Epsom salts is also known as magnesium sulphate. It is a chemical compound made of Sulphur, oxygen, and magnesium. It is also known as bath salt.

Celestite is a mineral composed of strontium sulfate ($SrSO_4$) and is named for its occasional delicate blue color. They are used in fireworks and alloys.

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