

RRB - NTPC SOLVED PAPER (2019)

28th Dec 2020
(Shift-1)

Instructions

- The test contains 100 objective type questions.
- All questions are compulsory.
- Complete the test within 90 minutes.
- All questions contain four alternatives, in which only one is correct.

- Which two banks were merged with Bank of Baroda with effect from 1st April 2019?
(1) Syndicate Bank and UCO Bank
(2) Union Bank of India and Andhra Bank
(3) Vijaya Bank and Dena Bank
(4) Allahabad Bank and Canara Bank
- Two buses start from opposite points towards each other on a main road, 185 km apart. The first bus runs for 35 km and takes a right turn and runs for 17 km. It then turns left and runs for another 42 km and takes the direction back to reach the main road, in the meantime, due to a minor breakdown, the other bus has run only 36 km along the main road. What would the distance between the two buses be at this point?
(1) 85 km (2) 80 km
(3) 75 km (4) 72 km
- Pattachitra style of painting is one of the oldest and most popular art forms of which of the following states?
(1) Andhra Pradesh (2) Rajasthan
(3) Odisha (4) Bihar
- Which of the following states is NOT a member of 'Seven Sisters' states of North-East India?
(1) Tripura (2) Sikkim
(3) Meghalaya (4) Mizoram
- Where is the headquarters of the International Court of Justice located?
(1) The Hague (2) Paris
(3) Washington D.C. (4) New York
- Four number-pairs have been given, out of which three are alike in some manner and one is different. Select the odd one.
(1) 12 - 96 (2) 13 - 104
(3) 15 - 120 (4) 16 - 118
- Mukesh was facing the south. He walked 5 km straight and from there he turned at a 90° angle to his right and walked 5 km. Then he turned at a 45° angle to his left and walked 3 km. Where will he be from his actual position?
(1) North-west direction
(2) South-west direction
(3) South direction
(4) South-east direction
- What is Sukanya Samriddhi Yojana?
(1) A small deposit scheme for the girl child.
(2) A scheme to provide bicycles for girls studying in the 10th class.
(3) A scheme to provide skills that give employability to women.
(4) A scheme to develop self-defence skills in girls.
- Four words have been given, out of which three are alike in some manner and one is different. Select the odd one.
(1) Chalk (2) Book
(3) Pen (4) Marker
- Select the letter cluster that can replace the question mark (?) in the following series. BZA, DYC, FXE, HWG, ?
(1) JUH (2) JVH
(3) KVI (4) JVI
- Who said, "Freedom is my birth right and I shall have it"?
(1) Bhagat Singh
(2) Bal Gangadhar Tilak
(3) Gopal Krishna Gokhale
(4) Chandra Shekhar Azad



12. Out of Harish's monthly salary of ₹45,000, $\frac{1}{3}$ of the expenditure are on education and $\frac{2}{6}$ of the expenditure are on food and other necessities. The rest of the salary goes towards his savings. The amount of savings is:
 (1) ₹22,500 (2) ₹12,000
 (3) ₹15,000 (4) ₹11,250
13. In which city was the Khelo India Youth Games, 2020 held?
 (1) Guwahati (2) Kolkata
 (3) Chennai (4) Bangalore
14. What is 'UBUNTU'?
 (1) Malware (2) Operating system
 (3) External hard drive (4) Web Browser
15. In which of the following continents is the Gobi desert located?
 (1) Europe (2) North America
 (3) Asia (4) Africa
16. Which part of the computer is called its brain?
 (1) CPU (2) Monitor
 (3) Hard Disc (4) ROM
17. Shweta and Harish completed a project with an income of ₹28,000. In this project Shweta worked for 20 days and Harish worked for 30 days. If their daily wages are in the ration of 5 : 6, then Shweta's share is:
 (1) ₹16,000 (2) ₹12,000
 (3) ₹18,000 (4) ₹10,000
18. If $\frac{1}{\sin^2 65^\circ + \cos^2 65^\circ} + \frac{\sin 15^\circ}{\cos 75^\circ} + \frac{\cos 65^\circ}{\sin 25^\circ} = \sqrt{3} \tan \theta$, then the value of θ is:
 (1) 45° (2) 60°
 (3) 90° (4) 30°
19. Where is the Sabarimala temple located?
 (1) Kerala (2) Andhra Pradesh
 (3) Odisha (4) Maharashtra
20. Which of the following passes connects Srinagar and Leh?
 (1) Nathu La (2) Bara La
 (3) Jelep La (4) Zoji La
21. In which state is the Kudanukulam Nuclear Power Station located?
 (1) Tamil Nadu (2) Rajasthan
 (3) Karnataka (4) Gujarat
22. A group of friends are sitting in an arrangement with one each at the corner of an octagon. All are facing the centre. Medha is sitting diagonally opposite Radha. Medha is on Seema's left. Raman is next to Seema and opposite to Govind. Govind is on Chandra's right. Shanti is not an Medha's right but is opposite to Shashi. Who is opposite to Chandra?
 (1) Seema (2) Radha
 (3) Shanti (4) Raman
23. Which of the following is in the list of Maharatna Central Public Sector Enterprises?
 (1) Central Coal fields Limited
 (2) Cochin Shipyard
 (3) India Tourism Development Corporation
 (4) Coal India Limited
24. Which of the following units is used for measuring the amount of a substance?
 (1) Tesla (2) Joule
 (3) Lux (4) Mole
25. The unit digit in $4 \times 38 \times 764 \times 1256$ is:
 (1) 5 (2) 4
 (3) 6 (4) 8
26. The ratio of ladies to gents numbers in a club is 3 : 2. Recently, 300 ladies joined the club and the ratio became 5 : 2. The number of lady members now in the club is:
 (1) 1200 (2) 900
 (3) 600 (4) 750
27. Between which two cities does India's first semi high-speed train 'Vande Bharat Express' run?
 (1) Puri and Howrah Junction
 (2) Ahmedabad and Mumbai Central
 (3) New Delhi and Varanasi Junction
 (4) Hazrat Nizamudding and Jhansi Junction
28. The value of $\frac{6}{5}$ of $\left(\frac{1}{3} + \frac{2}{4}\right) - \frac{5}{6}$ of $\left(\frac{3}{10} + \frac{12}{20}\right) - \frac{1}{6}$ is:
 (1) $\frac{1}{12}$ (2) $\frac{1}{3}$
 (3) $\frac{3}{4}$ (4) $\frac{5}{6}$
29. The ratio of two positive numbers is 3 : 7 and their LCM is 231. The smaller number is:
 (1) 55 (2) 33
 (3) 44 (4) 77
30. In which year was the Second battle of Panipat fought between Akbar and Hemu?
 (1) 1556 (2) 1576
 (3) 1536 (4) 1526
31. Who was the founder of the Prarthana Samaj?
 (1) Swami Dayanand Saraswati
 (2) Raja Ram Mohan Roy
 (3) Atmaram Pandurang
 (4) Swami Vivekananda
32. The cost price of an article is 75% of the marked price. If a discount of 15% is allowed, then the profit or loss percentage is:
 (1) 12.44% loss (2) 15% profit
 (3) 15.55% loss (4) 13.33% profit
33. Who is the author of 'Rajatarangini' ?
 (1) Jayadeva (2) Kalidasa
 (3) Kalhana (4) Chand Bardai
34. The simple interest on an amount of ₹3400 for 4 years is ₹680. The rate of interest is:
 (1) 8% (2) 4%
 (3) 5% (4) 6%

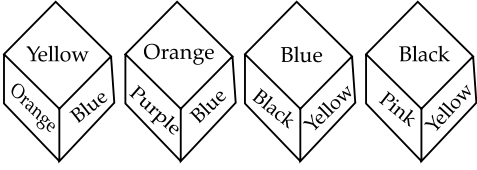
35. Select the option that is related to the third term in the same way as the second term related to the first term.
Lawyer : court :: beautician : ?
(1) house (2) ship
(3) class (4) parlour
36. Though which of the following mediums can sound NOT travel?
(1) Vacuum (2) Milk
(3) Air (4) Steel
37. Which Indian state has the longest mainland coastline?
(1) Gujarat (2) Maharashtra
(3) Odisha (4) Kerala
38. What is the maximum strength of the members of the Lok Sabha?
(1) 543 (2) 547
(3) 549 (4) 552
39. Which of the following diseases is caused by a virus?
(1) Cholera (2) Typhoid
(3) Chicken Pox (4) Tuberculosis
40. The adjacent angles of a rhombus are in the ratio of 3 : 6. The smaller angle of the rhombus is:
(1) 120° (2) 40°
(3) 80° (4) 60°
41. In order to qualify in an examination, one has to secure 50% of the overall marks. In the examination consisting of two papers, a student secured 40% in the first paper of 200 marks. Minimum what percentage of marks should be secured in the second paper of 150 marks in order to qualify in the examination?
(1) 64% (2) 60%
(3) 68% (4) 65%
42. In the following question, select the related words from the given alternatives.
Writer : Pen :: Tailor : ?
(1) Scalpel (2) Axe
(3) Needle (4) Saw
43. Select the number from among the given options that can replace the question mark (?) in the following table.
- | | | |
|-----|-----|---|
| 5 | 4 | 3 |
| 6 | 5 | 4 |
| 7 | 6 | 5 |
| 384 | 245 | ? |
- (1) 269 (2) 249
(3) 144 (4) 244
44. The term 'Sericulture' is related to which of the following?
(1) Silk farming (2) Fish farming
(3) Bird farming (4) Bee farming
45. Name the theme declared by United Nations for World Environment Day, 2020.
(1) Beat Plastic Pollution
(2) Biodiversity
(3) Connecting People to Nature
(4) Water pollution
46. Which of the following is a multi-barrel rocket system developed by DRDO?
(1) Dhanush (2) Trishul
(3) Pinaka (4) Prithvi
47. Which of the following monuments is NOT located in Delhi?
(1) Humayun's Tomb (2) India Gate
(3) Buland Darwaza (4) Alai Darwaza
48. From among the given options, select the word which CANNOT be formed using the letters of the given word.
LAUGHTER
(1) GRUNT (2) GATE
(3) HATE (4) RATE
49. Mahatma Gandhi started the famous 'Salt March' from Sabarmati to Dandi. In which district of Gujarat is Dandi?
(1) Surat (2) Navsari
(3) Porbandar (4) Kutch
50. In the domain of computers and the internet, what is the full form of URL?
(1) Universal Resource Locator
(2) Uniform Resource Locator
(3) Unique Resource Location
(4) Unique Revoked Location
51. Select the option that is related to the third letter cluster in the same way as the second letter cluster is related to the first letter cluster.
RAMO : SCPS :: VXMJ : ?
(1) WZPN (2) WQPN
(3) WQZN (4) WPZN
52. If $a^3 - b^3 = 625$, $a^2 - b^2 = 25$ and $a + b = 5$ then the value of $a^2 + ab + b^2$ is:
(1) 125 (2) 5
(3) 25 (4) 150
53. Who among the following was the youngest President of India?
(1) Shri Neelam Sanjiva Reddy
(2) Dr. Rajendra Prasad
(3) Dr. S. Radhakrishnan
(4) Dr. Zakir Hussain
54. The sum of two numbers is 60 and their HCF and LCM are 12 and 72 respectively. The sum of the reciprocal of the two number is:
(1) $\frac{5}{12}$ (2) $\frac{1}{5}$
(3) $\frac{5}{72}$ (4) $\frac{5}{6}$



55. The greatest number that will divide 155, 260, 315 and leave the remainders 5, 10 and 15 respectively is:
 (1) 75 (2) 50
 (3) 10 (4) 25
56. The value of $180 \div (2^3 + 3^2 + 1) + 37 - 20$ equal to:
 (1) 27 (2) 20
 (3) 25 (4) 23
57. The angles of a triangle are $2x^\circ$, $(3x^\circ - 8^\circ)$ and $(5x^\circ - 12^\circ)$. The greatest angle of the triangle is:
 (1) 40° (2) 112°
 (3) 118° (4) 88°
58. The simple interest on a sum of amount for 2 years at 10% per annum is ₹500. The compound interest on the same sum at the same rate for the same time is:
 (1) ₹525 (2) ₹510
 (3) ₹515 (4) ₹520
59. The smallest 5 digit number that leaves a remainder of 6 when divided by 7 is:
 (1) 10003 (2) 10007
 (3) 10002 (4) 10009
60. Who was honoured with the 55th Jnanpith Award for the year 2019?
 (1) Chitra Mudgal
 (2) Shobha Rao
 (3) A Achuthan Namboothiri
 (4) Krishna Sobti
61. In which year was The Environment (Protection) Act passed by the Parliament of India?
 (1) 1990 (2) 1991
 (3) 1986 (4) 1988
62. Which of the following countries is NOT a permanent member of United Nations Security Council?
 (1) China (2) United Kingdom
 (3) Japan (4) France
63. X and Y together can complete a piece of work in 12 days, Y and Z can do it 18 days and X and Z can complete the same work in 15 days. If X, Y and Z can together complete the work, approximately how many days will be required to complete the work?
 (1) 12 (2) 18
 (3) 14 (4) 10
64. Select the option that is related to the third term in the same way as the second term is related to the first term.
 Pediatrics : children :: neurology : ?
 (1) heart (2) eyes
 (3) brain (4) veins
65. In general, the most appropriate average value in measuring central tendency is:
 (1) mode (2) median
 (3) range (4) mean
66. Which of the following shows a symbiotic relationship?
 (1) Funaria (2) Ulothrix
 (3) Marsilea (4) Lichen
67. Which of the following countries is NOT a member of BIMSTEC?
 (1) Maldives (2) India
 (3) Bhutan (4) Nepal
68. The value of $\frac{\sqrt{54} \times \sqrt{125}}{\sqrt{24} \times \sqrt{45}}$ is:
 (1) 4 (2) 2.5
 (3) $2\sqrt{5}$ (4) $4\sqrt{6}$
69. The value of $5\sin 14^\circ \sec 76^\circ + 3\cot 15^\circ \times \cot 75^\circ + 2\tan 45^\circ$ is:
 (1) 0 (2) 10
 (3) 1 (4) 8
70. Which of the following two countries of South America are land locked?
 (1) Chile and Ecuador
 (2) Brazil and Venezuela
 (3) Guyana and Suriname
 (4) Paraguay and Bolivia
71. A class of 50 girls and 70 boys sponsored a musical programme. If 40% of the girls and 50% of the boys attended, approximately what percentage of the class attended the programme?
 (1) 42% (2) 44%
 (3) 46% (4) 48%
72. If all the special characters are dropped from the below arrangement, which of the following will be the 10th to the right of X?
 $3 X ! B 9 \# F 4 5 * 1 K 2 \$ 8 R S \% Z$
 (1) 8 (2) R
 (3) S (4) 2
73. Which Sikh guru established the Khalsa Panth?
 (1) Shri Guru Nanak ji
 (2) Shri Guru Har Gobind ji
 (3) Shri Guru Tegh Bahadur ji
 (4) Shri Guru Gobind Singh ji
74. A cylinder has a height of 14 cm and the curved surface area is 528 cm². The volume of the cylinder is:
 (1) 1244 cm³ (2) 792 cm³
 (3) 1584 cm³ (4) 2538 cm³
75. A rope is divided into three different parts. The first part is $\frac{1}{5}$ of the whole length, the second part is $\frac{3}{2}$ of the first. The third part is what fraction of the rope?
 (1) $\frac{1}{3}$ (2) $\frac{3}{4}$
 (3) $\frac{1}{2}$ (4) $\frac{2}{3}$
76. The value of $5\frac{2}{3} + 0.73 - 3.123$ is equal to:
 (1) 2.55 (2) 3.27
 (3) 3.12 (4) 5.73
77. A train leaves station A towards station B at the speed of 50 km/hr. After half an hour, another train leaves station B towards station A at 150 km/hr. The distance between the stations is 725 km. The distance of the point from station A where the two trains are to meet is:

- (1) 150 km (2) 168 km
 (3) 200 km (4) 250 km
78. If the mass of a person is 60 kg on the surface of earth then the same person's mass on the surface of the moon will be:
 (1) 360 kg (2) 60 kg
 (3) 10 kg (4) 0 kg
79. If $\frac{x}{2} + \frac{2}{y} = 1$ and $\frac{y}{2} + \frac{2}{z} = 1$, then the value of $\frac{z}{2} + \frac{2}{x}$ is:
 (1) 0 (2) 1
 (3) -1 (4) 2
80. Where is the Central Potato Research Institute of India located?
 (1) Ranchi (2) Lucknow
 (3) Shimla (4) Delhi
81. In which year did ISRO launch the Mars Orbiter Mission?
 (1) 2012 (2) 2015
 (3) 2014 (4) 2013
82. What is to be added to 12% of 2400, so that the sum will be equal to 18% of 5400?
 (1) 288 (2) 952
 (3) 684 (4) 972
83. In a rectangle, the length is twice the breadth and the perimeter of the rectangle is 48 cm. The area of the rectangle is:
 (1) 288 cm² (2) 128 cm²
 (3) 512 cm² (4) 144 cm²
84. Select the combination of letters that when sequentially placed in the blanks will create a repetitive pattern.
 c _ bba _ cab _ ac _ ab _ ac
 (1) a; c; b; c; b (2) a; b; c; b; c
 (3) b; a; b; c; c (4) b; c; a; c; b
85. If $\sin\theta = \frac{3}{4}$ and $\cos\theta = \frac{5}{4}$, then the value of $\frac{1 + \tan\theta}{1 - \cot\theta}$ is:
 (1) $\frac{11}{5}$ (2) $\frac{2}{5}$
 (3) $-\frac{12}{5}$ (4) $-\frac{8}{5}$
86. Select the option that is related to the third number in the same way as the second number is related to the first number.
 21 : 11 :: 31 : ?
 (1) 16 (2) 15
 (3) 17 (4) 18
87. Select the number from among the given options that can replace the question mark (?) in the following table.

| | | |
|----|----|----|
| 28 | 63 | 94 |
| 8 | 18 | ? |
| 6 | 9 | 13 |

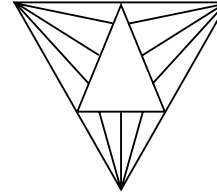
- (1) 69 (2) 76
 (3) 75 (4) 48
88. P is the brother of Q and R. S is R's mother. T is P's father. Which of the following statements CANNOT be definitely true?
 (1) T is S's husband (2) S is P's mother
 (3) T is Q's husband (4) T is Q's father
89. From among the given options, select the word which CANNOT be formed using the letters of the given word.
 DAUGHTER
 (1) HURT (2) GET
 (3) TOUGH (4) DATE
90. Four different positions of a cube are shown in the figure. Which of the following colours is on the face opposite to the face that has black written on it?
- 
- (1) Purple (2) Pink
 (3) Blue (4) Orange
91. Five students are sitting in a row, Sunil is neither a neighbour of Aastha nor Shyam, Aastha is a neighbour of Shyam and she is on the left end of the row. Sunil is a neighbour of Manjeet, Manjeet is exactly in the middle of the row, and is not a neighbour of Amita. Who are the neighbours of Sunil?
 (1) Manjeet and Amita (2) Shyam and Amita
 (3) Shyam and Manjeet (4) Aastha and Manjeet
92. Select the number from among the given options that can replace the question mark (?) in the following series.
 69, 55, 26, 13, ?
 (1) 2 (2) 5
 (3) 3 (4) 4
93. Five girls Beena, Leena, Meena, Reena and Teena are playing game. They are sitting in a row facing towards the north. Meena is sitting at the west end and Teena is sitting at the east end. Leena and Reena are sitting together next to each other. Beena is sitting to the left of Leena and to the right of Meena. Who is sitting second from the east end?
 (1) Leena (2) Reena
 (3) Teena (4) Beena
94. Select the number that can replace the question marks (?) in the following series.
 97, 86, 101, 89, 107, ?, ?
 (1) 114; 169 (2) 94; 115
 (3) 84; 125 (4) 121; 144
95. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
Statements:



All Roses are Red.
Some Red are Colours.
All Colours are Paints.

Conclusions:

I. Some Red are Paints
II. All Red are Roses.



- (1) Neither conclusion I nor II follows.
(2) Only conclusion I follows.
(3) Both conclusion I and II follow.
(4) Only conclusion II follows.
96. Four letter clusters have been given, out of which three are alike in some manner and one is different. Select the odd one.
(1) IKJL (2) EGFH
(3) MNPO (4) ACBD
97. Four word-pairs have been given, out of which three are alike in some manner and one is different. Select the odd one.
(1) Paper : noter (2) Giftr : gift wrap
(3) Head : cap (4) Hand : glove
98. Find the number of triangles in the diagram given below:
- (1) 30 (2) 31
(3) 32 (4) 29
99. Select the number that can replace the question mark (?) in the following series.
5, 10, 17, 26, ?
(1) 37 (2) 35
(3) 36 (4) 34
100. The positions of Deepti and Mohan in a row are 14th from the left and 9th from the right respectively. If they interchange their places, then Mohan will be 21st from the right, find the position of Deepti from the left row and the total number of persons in the row.
(1) 24, 38 (2) 33, 27
(3) 26, 34 (4) 34, 26



SMART ANSWERSHEET

Correct % Indicates % of students answered correctly.

Skipped % Indicates % of students skipped questions.



Easy



Medium



Difficult

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

PERFORMANCE ANALYSIS

| OVERALL | |
|---------------|--------|
| Avg. Score | 48/100 |
| Toppers Score | 93/100 |
| Cut Off | 83/100 |
| Your Score | _____ |

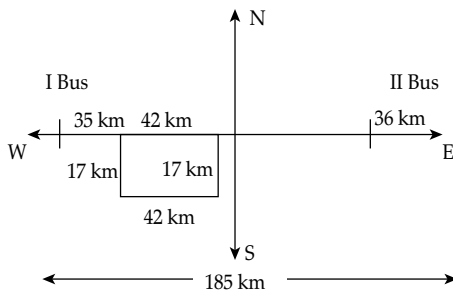
ANSWERS WITH EXPLANATIONS

1. Option (3) is correct

Explanation:- Vijaya Bank and Dena Bank banks were merged with Bank of Baroda. The merger took effect on 1 April 2019. Customers, including depositors of Vijaya Bank and Dena Bank will be treated as customers of Bank of Baroda.

2. Option (4) is correct.

Explanation:-



Bus 1 covered a total distance on main road = $35 + 42 = 77$ km

Bus 2 covered a total distance on main road = 36 km

Given total distance = 185 km

Distance between two buses = $185 - (77 + 36)$
= $185 - 113 = 72$ km

3. Option (3) is correct

Explanation:- Pattachitra style of painting is one of the oldest and most popular art forms of Odisha. The name Pattachitra has evolved from the Sanskrit words patta, meaning canvas, and chitra, meaning picture.

4. Option (2) is correct

Explanation:- Sikkim is not a member of "seven sisters states" of north east India. The interdependence of the states and their geographical features between Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, and Tripura has given origin to the name "Seven Sisters of India".

5. Option (1) is correct

Explanation:- The seat of the Court is at the Peace Palace in The Hague (Netherlands) since 1946. The International Court of Justice is composed of 15 judges elected to nine-year terms of office by the United Nations General Assembly and the Security Council.

6. Option (4) is correct.

Explanation:-

$12 \rightarrow 96, 13 \rightarrow 104, 15 \rightarrow 120, 16 \rightarrow 118$

First three are in same manner

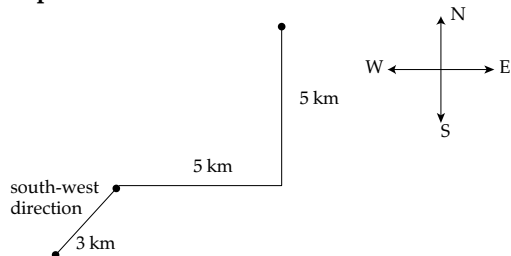
is $12 \times 8 \rightarrow 96, 13 \times 8 \rightarrow 104, 15 \times 8 \rightarrow 120$

But $16 \times 8 \rightarrow 128$ is should be

$16 \rightarrow 118$ is different

7. Option (2) is correct.

Explanation:-



8. Option (1) is correct

Explanation:- Sukanya Samriddhi Yojana is a small deposit scheme for girl child. Government of India introduced this saving scheme targeted at the parents of girl children. The scheme encourages parents to build a fund for the future education of their female child.

9. Option (2) is correct.

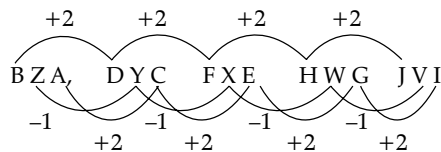
Explanation:- Chalk, Pen, and Marker are alike in same manner but Book is different one.

Chalk Pen Book (✓) Marker

10. Option (4) is correct.

Explanation:-

BZA, DYC, FXE, HWG, ?



11. Option (2) is correct

Explanation:- Bal Gangadhar Tilak was an Indian nationalist, and an independence activist. His slogan 'Swaraj is my birth right and I shall have it' caught the imagination of a country fighting to free itself from the colonial rule.

12. Option (3) is correct.

Explanation:- Given Monthly salary of Harish's = ₹45000

Expenditure on Education = $\frac{1}{3}$ of his salary =
 $₹45000 \times \frac{1}{3} = ₹15000$

Expenditure on food = $\frac{2}{6}$ of his salary = $45000 \times \frac{2}{6} = ₹15000$

Saving = $45000 - (15000 + 15000) = ₹15000$

13. Option (1) is correct

Explanation:- Khelo India Youth Games is a part of the revamped national programme for development of sports in India. The third Khelo India Youth Games was held from 10 January 2020 to 22 January 2020 in Guwahati, Assam, India. It is a government initiative to strengthen the sports ecosystem by encouraging mass participation and promotion of excellence.

14. Option (2) is correct

Explanation:- Ubuntu is a Linux distribution based on Debian and composed mostly of free and open-source Operating System. It's very easy to use. Ubuntu is officially released in three editions:- Desktop, Server, and Core for Internet of things devices and robots.

15. Option (3) is correct

Explanation:- The Gobi Desert is a large desert or brushland region in East Asia and is the sixth largest desert in the world. The Gobi Desert lies in the territory of the People's Republic of China and the State of Mongolia. The region is famous for its unique nature formations, many places of real dinosaur fossils, and many endemic flora and fauna. The Gobi is overall a cold desert, with frost and occasionally snow occurring on its dunes.

16. Option (1) is correct

Explanation:- The CPU is called the brain of computer. It is the "Central Processing Unit" and delivers instructions and commands. The CPU is constantly following instructions of computer programs that tell it which data to process and how to process it. Without a CPU, we could not run programs on a computer.

17. Option (4) is correct.

Explanation:- Total Income = ₹28000 (i)

In this Project Shweta worked for 20 and Harish worked for 30 days

Daily wage ratio = 5 : 6

Shweta's earning = $5 \times x \times 20 = 100x$

Harish's earning = $6 \times x \times 30 = 180x$

Total income = $100x + 180x = 28000$

∴ $x = ₹100$

Shweta's share = $100x = 100 \times 100 = ₹10000$

18. Option (4) is correct.

Explanation:-

$$\frac{1}{1} + \frac{\sin 15^\circ \sin 25^\circ + \cos 75^\circ \cos 65^\circ}{\sin 25^\circ \cos 75^\circ} = \sqrt{3} \tan \theta$$

$$1 + \frac{\sin 15^\circ \sin 25^\circ + \cos(90^\circ - 15^\circ) \cos(90^\circ - 25^\circ)}{\sin 25^\circ \cos 75^\circ}$$

$$= \sqrt{3} \tan \theta$$

$$1 + \frac{\sin 15^\circ \sin 25^\circ + \sin 15^\circ \sin 25^\circ}{\sin 25^\circ \cos 75^\circ} = \sqrt{3} \tan \theta$$

$$1 + \frac{2 \sin 15^\circ \sin 25^\circ}{\sin 25^\circ \cos 75^\circ} = \sqrt{3} \tan \theta$$

$$\Rightarrow 1 + \frac{2 \sin 15^\circ}{\sin(90^\circ - 75^\circ)} = \sqrt{3} \tan \theta$$

$$1 + \frac{2 \sin 15^\circ}{\sin 15^\circ} = \sqrt{3} \tan \theta$$

$$3 = \sqrt{3} \tan \theta$$

$$\therefore \tan \theta = \frac{3}{\sqrt{3}} = \sqrt{3}$$

$$\therefore \theta = \tan^{-1}(\sqrt{3})$$

$$\theta = 60^\circ$$

19. Option (1) is correct

Explanation:- Sabarimala Temple, dedicated to Lord Ayyappa, is the most famous and prominent among all the Sastha temples in Kerala. The Sabarimala Temple is located at Sabarimala hill inside the Periyar Tiger Reserve in the Perinad Village, Pathanamthitta district, Kerala, India.

20. Option (4) is correct

Explanation:- Zoji La is a high mountain pass located in the Kargil district of Ladakh. The pass links Leh and Srinagar and provides an important link between Union Territories of Ladakh and Kashmir. It is also known as the "Mountain Pass of Blizzards".

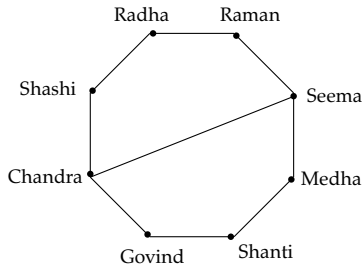
In 2018, the Zojila tunnel project was launched. It will provide all-weather connectivity between Srinagar, Kargil and Leh.

21. Option (1) is correct

Explanation:- Kudankulam Nuclear Power Plant is the largest nuclear power station in India, situated in Kudankulam in the Tirunelveli district of Tamil Nadu. Kudankulam is India's first nuclear plant to use imported pressurised water reactor (PWR) technology. The existing nuclear power plants in India use pressurised heavy water reactor or boiling water reactor technology.

22. Option (1) is correct.

Explanation:-



Chandra's opposite to Seema.

23. Option (4) is correct

Explanation:- Coal India Limited was accorded the status of a 'Maharatna' Central Public Sector Enterprise by the government of India in 2011. Coal India Limited is an Indian central public sector undertaking under the ownership of the Ministry of Coal, Government of India. It was established in 1975.

24. Option (4) is correct

Explanation:- The mole is the unit of amount of substance in the International System of Units (SI). The quantity amount of substance is a measure of how many elementary entities of a given substance are in an object or sample.

25. Option (4) is correct.

Explanation:- Unit digit in

$$= 4 \times 38 \times 764 \times 1256,$$

$$\Rightarrow \text{unit palce in } 4 \times 8 \times 4 \times 6 = 32 \times 24$$

$$\Rightarrow 2 \times 4 = 8$$

Unit digit is 8.

26. Option (4) is correct.

Explanation:- Given ratio of ladies and gents in a club is 3 : 2

$$\frac{L}{G} = \frac{3}{2} \quad (i)$$

If recently 300 ladies joined the club then ratio becomes 5 : 2

$$\frac{L + 300}{G} = \frac{5}{2} \quad (ii)$$

$$\text{From (i) } G = \frac{2}{3}L$$

$$\text{From (ii) } G = \frac{2}{5}(L + 300)$$

Equating

$$\frac{2}{3}L = \frac{2}{5}L + \frac{2}{5} \times 300$$

$$\left(\frac{2}{3} - \frac{2}{5}\right)L = 120$$

$$\Rightarrow \left(\frac{1}{3} - \frac{1}{5}\right)L = 60$$

$$\Rightarrow \frac{2}{15}L = 60$$

$$\therefore L = \frac{60 \times 15}{2} = 30 \times 15 = 450$$

$$L = 450$$

$$\text{Number of lady members} = 450 + 300 = 750$$

27. Option (3) is correct

Explanation:- The Vande Bharat Express is one of the prestigious and modern trains. It is a semi-high-speed, electric multiple unit train managed by the Indian Railways. The first Vande Bharat Express train was flagged off on the New Delhi-Kanpur-Allahabad-Varanasi route on February 15, 2019.

28. Option (1) is correct.

$$\text{Explanation:- } \frac{6}{5} \times \left[\frac{5}{6}\right] - \frac{5}{6} \text{ of } \left(\frac{3}{10} + \frac{12}{20}\right) - \frac{1}{6}$$

$$= 1 - \frac{5}{6} \text{ of } \frac{9}{10} - \frac{1}{6}$$

$$= 1 - \frac{5}{6} \times \frac{9}{10} - \frac{1}{6}$$

$$= 1 - \frac{3}{4} - \frac{1}{6}$$

$$\Rightarrow = \frac{1}{4} - \frac{1}{6} = \frac{2}{24} = \frac{1}{12}$$

29. Option (2) is correct.

Explanation:- Given the ratio of two positive number is 3 : 7

Let the number is $3x$ and $7x$

Their L.C.M = 231

L.C.M of $3x$ and $7x$

$$= 3 \times 7 \times x = 231$$

$$x = \frac{231}{21} = 11$$

Then numbers are $3x = 3 \times 11 = 33$ smaller

$7x = 7 \times 11 = 77$ largest

So smaller number is 33.

30. Option (1) is correct

Explanation:- The second battle of Panipat took place in 1556. The Second Battle of Panipat was fought between the forces of Hemu and the army of Akbar, on November 5, 1556. Hemu had conquered Delhi and Agra a few weeks earlier by defeating Mughal forces under Tardi Beg Khan in the battle of Delhi and crowned himself Raja Vikramaditya at Purana Quila in Delhi.

31. Option (3) is correct

Explanation:- The Prarthana Samaj, a leading society for socio-religious reform was established on 31 March 1867 in Bombay by Atmaram Panduranga. The society was against the social evils that were prevalent then like child marriage, widow suppression, dowry, sati, untouchability, etc. It also propagated monotheism and denounced idol worship.

32. Option (4) is correct.

Explanation:- Let M.P = ₹100, Then C.P = ₹75
discount is 15%

$$\text{Discount} = 100 \times \frac{15}{100} = ₹15$$

$$\text{S.P} = \text{M.P} - \text{discount} = 100 - 15 = ₹85$$

$$\text{Profit} = \text{S.P} - \text{C.P} = 85 - 75 = 10$$

$$\text{Profit \%} = \frac{\text{S.P.} - \text{C.P.}}{\text{C.P.}} \times 100 = \frac{10}{75} \times 100$$

$$= \frac{40}{3} = 13.33\%$$

33. Option (3) is correct

Explanation:- Rajatarangini is the oldest and fullest record of Kashmir history written by Kalhana in the 12th century CE. Rajatarangini is a metrical legendary and historical chronicle of the north-western part of India, particularly the kings of Kashmir.

34. Option (3) is correct.

Explanation:- P = ₹3400

$$T = 4 \text{ years}$$

$$\text{S.I.} = ₹680$$

R (Rate of interest) = ?

We have

$$\text{Simple interest} = \frac{P \times R \times T}{100}$$

$$680 = \frac{3400 \times R \times 4}{100}$$

$$\therefore R = \frac{680 \times 100}{3400 \times 4}$$

R = 5% rate of Interest.

35. Option (4) is correct.

Lawyer : Court : : Beautician : ?

Explanation:- Lawyer related to Court

In the same way Beautician related to parlour because both are the work place of lawyer and beautician.

36. Option (1) is correct

Explanation:- The sound is a mechanical energy which can be produced only due to the vibration produced in the material body. The mechanical waves need some material medium for propagation. The vacuum has no material medium, therefore, sound energy cannot propagate.

Speed of sound in air = 343 m/s.

The sound frequency at which a human can hear ranges between 20Hz to 20kHz.

37. Option (1) is correct

Explanation:- From the above Indian states, Gujarat has the longest coastline, measuring 1214.7 kilometres and accounting for around 23% of the country's total mainland coastline.

38. Option (4) is correct

Explanation:- The maximum strength of the House envisaged by the Constitution is 552, which is made up by election of upto 530 members to represent the States, upto 20 members to represent the Union Territories and not more than two members of the Anglo-Indian Community to be nominated by the Hon'ble President, if, in her/his opinion, that community is not adequately represented in the House. After coming into effect of The Constitution (One Hundred and Fourth Amendment) Act, 2019, the provision of special representation of the Anglo-Indian community in the House of the People by nomination has not been extended further.

39. Option (3) is correct.

Explanation:- Chicken pox is one of the highly contagious infection caused by the varicella-zoster virus (VZV) resulting in itchy skin blisters.

40. Option (4) is correct.

Explanation:- We have sum of adjacent angle of a rhombus is equal to 180°

Given ratio of adjacent angle = 3 : 6 = 1 : 2

If one angle is x and second angle is 2x

$$x + 2x = 180^\circ$$

$$\therefore x = \frac{180^\circ}{3} = 60^\circ$$

Smallest angle is 60 degree

41. Option (1) is correct.

Explanation:- Over all marks = 200 + 150 = 350 marks

$$50\% \text{ of over all marks} = \frac{350 \times 50}{100} = 175 \text{ marks}$$

A student secure 40% in the Ist paper of 200 marks. Marks obtained in 1st paper =

$$\frac{200 \times 40}{100} = 80 \text{ marks}$$

Remaining marks secure in II paper

$$= 175 - 80 = 95 \text{ marks}$$

$$\% \text{ of marks secure in II paper} = \frac{95}{150} \times 100 = \frac{190}{3} = 63.3 \cong 64\%$$

42. Option (3) is correct.

Explanation:- Writer : Pen : : Tailor : ?

Writer use Pen to complete his written work.

In the same way Tailor use Needle to complete his work.

Correct answer is Needle.

43. Option (3) is correct.

Explanation:-

| | | |
|-----|-----|---|
| 5 | 4 | 3 |
| 6 | 5 | 4 |
| 7 | 6 | 5 |
| 384 | 245 | ? |

Used concept is
 $7^3 + 6^2 + 5 = 384$
 $6^3 + 5^2 + 4 = 245$
 $5^3 + 4^2 + 3 = 144$

44. Option (1) is correct

Explanation:- Sericulture is the cultivation of silkworms for the production of silk. The process of rearing silkworms for the extraction of silk is called silk farming or sericulture. It was discovered by the Chinese 5,000 years ago.

45. Option (2) is correct

Explanation:- "Biodiversity" is the theme declared by United Nations for World Environment Day, 2020, with a focus on its role in providing the essential infrastructure that supports life on Earth and human development. Biodiversity is defined as the variation in life of plants and animals living in a specific environment. These variety of animals and plants functions together in an ecosystem to carry out a balanced and maintained life.

46. Option (3) is correct.

Explanation:- Pinaka is multi-barrel rocket launcher which is developed by the Defence Research and Development Organisation (DRDO) for the Indian Army.

47. Option (3) is correct

Explanation:- Buland Darwaza is located at Fatehpur Sikri, Agra District in Uttar Pradesh. Buland Darwaza was built to commemorate Akbar's victory over Gujarat. It was built in 1602 by Mughal emperor Akbar. The Buland Darwaza, approached by 42 steps and 53.63m high and 35 meters wide, is the highest gateway in the world.

48. Option (1) is correct.

Explanation:- GATE formed by using the letters of the word LAUGHTER

HATE formed by using the letters of the word LAUGHTER

RATE formed by using the letters of the word LAUGHTER

But GRUNT cannot formed by using the letters of the work LAUGHTER

Because N is not present in the word LAUGHTER.

49. Option (2) is correct

Explanation:- Dandi is a village in the Jalalpore taluka, Navsari District, Gujarat, India. Dandi is famous for Mahatma Gandhiji's historical Salt Satyagraha. He reached the coast of Dandi on 5 April 1930 after marching a distance of 200 miles. On 6 April formally launched the Civil Disobedience Movement by breaking the salt laws.

50. Option (2) is correct

Explanation:- URL stands for Uniform Resource Locator. It is the address of a resource, which can be a specific webpage or a file, on the internet. It is also known as web address when it is used with http.

The URL of a web page is displayed above on the page in the address bar.

A typical URL looks like this:

http://www.javatpoint.com/full-form

The above URL contains:

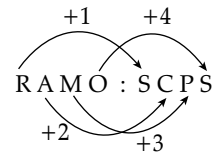
protocol: http

host or domain: www.javatpoint.com

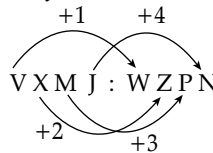
Path of the resource: /full-form

51. Option (1) is correct.

Explanation:- RAMO : SCPS :: VXMJ : ?



In the same way



Correct answer WZPN.

52. Option (1) is correct.

Explanation:-

$$a^3 - b^3 = 625$$

$$\therefore (a - b)(a^2 + ab + b^2) = 625 \quad (1)$$

$$(a - b)(a + b) = 25 \quad (2)$$

$$a + b = 5 \quad (3)$$

from (2) and (3)

$$(a - b) \times 5 = 25$$

$$\therefore (a - b) = 5 \quad (4)$$

from (1) and (4)

$$5(a^2 + ab + b^2) = 625$$

$$\therefore a^2 + ab + b^2 = 125$$

53. Option (1) is correct

Explanation:- Shri Neelam Sanjiva Reddy was the youngest President of India. He entered the office at the age of 64 years. He was the sixth President and youngest Indian President of India to be elected unopposed, who served from 1977 to 1982. He was the Speaker of the Lok Sabha from 1967 to 1969 and again in 1977.

54. Option (3) is correct.

Explanation:- Given sum of two numbers is 60

Let a, b be two numbers

$$\text{Then } a + b = 60 \quad (1)$$

Given H.C.F and L.C.M. of the numbers are 12 and 72

We have

Product of two numbers = H.C.F \times L.C.M.

$$ab = 12 \times 72 \quad (2)$$

Then sum of their reciprocal

$$\frac{1}{a} + \frac{1}{b} = \frac{a+b}{ab} = \frac{60}{12 \times 72} = \frac{5}{72}$$

55. Option (2) is correct.

Explanation:- The greatest number that will divide 155, 260, 315 and leave the remainder 5, 10 and 15 respectively

$$155 - 5 = 150 = 50 \times 3$$

$$260 - 10 = 250 = 50 \times 5$$

$$315 - 15 = 300 = 50 \times 6$$

So, greatest divisor is 50.

56. Option (1) is correct.

Explanation:- The value of $180 \div (2^3 + 3^2 + 1) + 37 - 20$ equal to

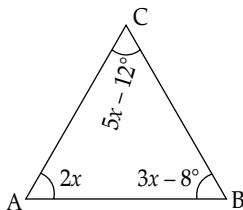
$$180 \div (8 + 9 + 1) + 37 - 20$$

$$= 180 \div (18) + 17$$

$$\Rightarrow \frac{180}{18} + 17 = 10 + 17 = 27$$

57. Option (4) is correct.

Explanation:- The angles of a triangle are $2x$, $3x - 8^\circ$ and $5x - 12^\circ$



We have

$$\angle A + \angle B + \angle C = 180^\circ \quad (1)$$

In $\triangle ABC$

$$2x + 3x - 8 + 5x - 12 = 180$$

$$10x - 20 = 180$$

$$10x = 200$$

$$x = 20$$

Greatest angle is $5x - 12^\circ$

$$= 5 \times 20 - 12 = 100 - 12 = 88^\circ$$

58. Option (1) is correct.

Explanation:- Given

Simple Interest (S.I.) = ₹ 500

T = 2 years R = 10%

P = ?

We have,

$$S.I. = \frac{P \times R \times T}{100}$$

$$\therefore 500 = \frac{P \times 10 \times 2}{100}$$

$$P = \frac{500 \times 100}{20} = ₹ 2500$$

$$\text{We have, C.I.} = P \left[\left(1 + \frac{R}{100} \right)^T - 1 \right]$$

$$= 2500 \left[\left(1 + \frac{10}{100} \right)^2 - 1 \right]$$

$$= 2500 \left[\frac{121}{100} - 1 \right]$$

$$= 2500 \times \frac{21}{100} = ₹ 525.$$

C.I. = ₹ 525 (Compound Interest)

59. Option (2) is correct.

Explanation:-

$10003 - 6 = 9997$ is not divisible by 7.

$10002 - 6 = 9996$ is divisible by 7

$$7 \overline{)10002} \begin{array}{r} 1428 \\ 7 \\ \hline 30 \\ 28 \\ \hline 20 \\ 14 \\ \hline 6 \end{array}$$

$$\frac{7}{30}$$

$$\frac{28}{20}$$

$$\frac{14}{62}$$

$$\frac{-56}{6}$$

Smallest 5 digit number 10002.

60. Option (3) is correct

Explanation:- Akkitham Achuthan Namboothiri received 55th Jnanpith Award for the year 2019. The Jnanpith Award is the Highest Literary award in India. It is awarded to an author to acknowledge his/her excellence in Literature. Akkitham Achuthan Namboothiri was an Indian poet and essayist who wrote in Malayalam.

61. Option (3) is correct

Explanation:- Environment Protection Act was passed on 23rd May 1986 and came into force on 19 November 1986. Environment Protection Act is an Act to provide for the protection and improvement of environment and for matters connected therewith. It prohibits or restricts the setting and /or operation of any industrial facility on environmental grounds. The Act is widely considered to have been a response to the Bhopal gas leak.

62. Option (3) is correct

Explanation:- Japan is not a permanent member of United Nations Security Council. The Security Council was created after the aftermath of World War II. Its five permanent members are Second World War victors. Japan was a part of the Axis group who were defeated in the Second World War. Japan will serve as a non-permanent member of the Security Council for 2023-2024.

63. Option (4) is correct.

Explanation:-

$x + z$ Complete a work in 15 days

$x + y$ Complete a work in 12 days.

$y + z$ complete a work in 18 days.

One day work done by

$$x + y = \frac{1}{12} \quad (1)$$

$$x + z = \frac{1}{18} \quad (2)$$

$$z + x = \frac{1}{15} \quad (3)$$



By adding equations (1), (2) and (3),
One day work

$$2(x + y + z) = \frac{1}{12} + \frac{1}{18} + \frac{1}{15}$$

$$= \frac{15 + 10 + 12}{180} = \frac{37}{180 \times 2}$$

$$(x + y + z) = \frac{37}{180 \times 2}$$

Number of days to complete a work by $(x + y + z)$

$$= \frac{180}{37} \times 2$$

$$= 10 \text{ days (approx.)}$$

64. Option (3) is correct.

Explanation:-

Padiatrics : Children :: Neurology : ?
Pediatrics related to children (health) in the same way "Neurology" is related to brain.

65. Option (4) is correct.

Explanation:- In general, the most appropriate average value is measuring current tendency is

i.e. Mean $\bar{x} = \frac{\sum x}{n} = \frac{x_1 + x_2 + x_3 + \dots + x_n}{n}$

In which all value are used .

66. Option (4) is correct.

Explanation:- Symbiosis is a relationship or interaction between two or more species that share a common habitat.

There are three types of behaviors seen in symbiotic interactions:

Mutualism: Mutualism occurs when both creatures involved benefit from each other.

Commensalism: Only one organism benefits from commensalism, whereas the other is neither benefited nor injured.

Parasitism: Parasitic relationships benefit one creature while harming the other.

Example of a symbiotic relationship is Lichens.

67. Option (1) is correct

Explanation:- Maldives is not a member of BIMSTEC. BIMSTEC was established in the year 1997. Bay of Bengal Initiative for Multi-Sectorial Technical and Economic Cooperation (BIMSTEC) comprises Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand.

68. Option (2) is correct.

Explanation:-

$$\frac{\sqrt{6 \times 9} \times \sqrt{25 \times 5}}{\sqrt{6 \times 4} \times \sqrt{5 \times 9}} \Rightarrow \frac{\sqrt{6} \times \sqrt{9} \times 5\sqrt{5}}{\sqrt{6} \times 2 \times \sqrt{5} \times \sqrt{9}}$$

$$= \frac{5}{2} = 2.5$$

69. Option (2) is correct.

Explanation:-

$$5 \sin 14^\circ \sec 76^\circ + 3 \cot 15^\circ \times \cot 75^\circ + 2 \tan 45^\circ$$

$$\frac{5 \sin 14^\circ}{\cos(90^\circ - 14^\circ)} + 3 \frac{1}{\tan 15^\circ} \times \cot(90^\circ - 15^\circ) + 2 \times 1$$

$$5 + 3 \times \frac{1}{\tan 15^\circ} \times \tan 15^\circ + 2 \quad [\because \sin 14^\circ = \cos 76^\circ]$$

$$5 + 3 + 2 = 10$$

70. Option (4) is correct

Explanation:- A landlocked country is a country that has no access to marine water bodies and is entirely bordered by land. Bolivia and Paraguay are two countries in South America that are landlocked while the rest are dispersed across Europe, Africa, and Asia.

71. Option (3) is correct.

Explanation:-

No. of girls = 50 in class

No of boys = 70 in class

40% Girls and 50% Boys are attend the musical programme

$$\frac{50 \times 40}{100} = 20 \text{ girls attended the programme}$$

$$\frac{70 \times 50}{100} = 35 \text{ boys attended the programme}$$

$$\text{Total students in class} = 50 + 70 = 120$$

$$\text{Attendance \% of total students} = \frac{55}{120} \times 100$$

$$= \frac{55 \times 5}{6} = \frac{275}{6} = 46\%$$

72. Option (2) is correct.

Explanation:- 3 X !B9#F45*1K2\$8RS%Z

If we drop all the special characters from the series we get

3XB9F451K28RSZ

So, that 10th character to the right of X is R

73. Option (4) is correct

Explanation:- Guru Gobind Singh Ji established the Khalsa Panth in 1699. It was established in order to teach the followers that no ritual or superstition is above the Almighty and one should not fall for any superstition.

74. Option (3) is correct.

Explanation:- Given height of cylinder $h = 14$ cm and the curved surface area is 528 cm^2

The value of the cylinder is

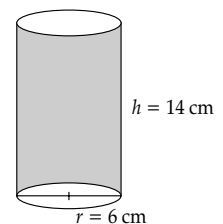
We have curved surface area of cylinder $S = 2 \pi r h$

$$2 \pi r h = 528$$

$$\therefore \pi r h = 264$$

$$r = \frac{264}{\pi \times h} = \frac{264}{\frac{22}{7} \times 14}$$

$$r = \frac{264}{22 \times 2} = \frac{132}{22} = \frac{66}{11} = 6$$



$$\begin{aligned} \text{The volume } V &= \pi r^2 h = \frac{22}{7} \times 36 \times 14 \\ &= 44 \times 36 = 1584 \text{ cm}^3 \end{aligned}$$

75. Option (3) is correct.

Explanation:- Let l be the length of rope

$$\text{First Part} = \frac{1}{5}l$$

$$\text{Second Part} = \frac{3}{2} \text{ Ist part} = \frac{3}{2} \times \frac{l}{5} = \frac{3l}{10}$$

Let third part is A

$$\text{Then, I} + \text{II} + A = l$$

$$\frac{l}{5} + \frac{3l}{10} + A = l$$

$$\frac{5l}{10} + A = l$$

$$\therefore \frac{l}{2} + A = l$$

$$A = l - \frac{l}{2} = \frac{l}{2}$$

Hence IIIrd part is $\frac{1}{2}$ of l . (length of rope)

76. Option (2) is correct.

Explanation:-

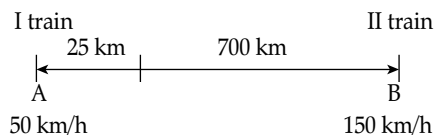
$$5\frac{2}{3} + 0.73 - 3.123$$

$$= \frac{17}{3} + 0.73 - 3.123$$

$$= 5.666 + 0.73 - 3.123$$

$$= 2.543 + 0.73 = 3.273$$

77. Option (3) is correct.

Explanation:-

Distance covered by train 1 in half an hour

$$= 50 \times \frac{1}{2} = 25 \text{ km}$$

Remaining distance = $725 - 25 = 700$ km

Both the trains run in opposite direction

Then speed = $50 + 150 = 200$ km/h

700 km distance covered in

$$T = \frac{700}{200} \text{ h} = \frac{7}{2} \text{ h}$$

From (A) distance covered = $50 \times \frac{7}{2}$ km = 175 kmTotal distance from (A) covered by (I) train = $25 + 175 = 200$ km

78. Option (2) is correct.

Explanation:-

Given mass of a person = 60 kg

We have mass of a person on the earth = Mass of a person of the moon

So, that mass of same person on moon = 60 kg

(Mass always constant).

79. Option (2) is correct.

Explanation:-

$$\text{Given } \frac{x}{2} + \frac{2}{y} = 1 \quad (1)$$

$$\frac{y}{2} + \frac{2}{z} = 1 \quad (2)$$

$$\text{From (1) } \frac{x}{2} = 1 - \frac{2}{y} = \frac{y-2}{y}$$

$$\therefore \frac{2}{x} = \frac{y}{y-2} \quad (3)$$

$$\text{From (2) } \frac{2}{z} = 1 - \frac{y}{2} = \frac{2-y}{2}$$

$$\therefore \frac{z}{2} = \frac{2}{2-y} \quad (4)$$

$$\text{Then } \frac{z}{2} + \frac{2}{x} = \frac{2}{2-y} + \frac{y}{y-2}$$

$$= \frac{2}{2-y} - \frac{y}{2-y} = \frac{2-y}{2-y} = 1$$

$$\text{Hence } \frac{z}{2} + \frac{2}{x} = 1$$

80. Option (3) is correct

Explanation:- Central Potato Research Institute is situated in the heart of Shimla near Bemloe, Himachal Pradesh, India. It was established in 1949 at Patna, Bihar on the recommendation of the Agricultural Advisor to the Government of India, Sir Herbert Steward.

It was later on, shifted to Shimla in 1956 in order to facilitate hybridization work in potato breeding and maintain seed potato health..

81. Option (4) is correct.

Explanation:- The Mars Orbiter Mission (MOM) was launched on 5th November 2013 by the Indian Space Research Organisation (ISRO). MOM is popularly known as Mangalyaan. ISRO has become the fourth space agency to successfully send a spacecraft to Mars orbit. Though the designed mission life is 6 months, MOM completed 7 years in its orbit on Sept 24, 2021.

82. Option (3) is correct.

Explanation:-Let x be added to 12% of 2400

So, that the sum will be equal to 18% of 5400

$$x + \frac{2400 \times 12}{100} = \frac{5400 \times 18}{100}$$

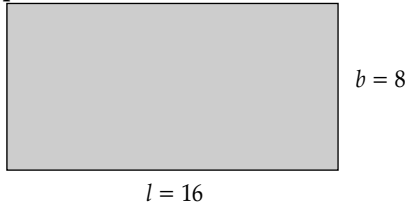
$$x + 288 = 972$$

$$\therefore x = 972 - 288 = 684$$

$$x = 684$$

83. Option (2) is correct.

Explanation:-



Given $l = 2b$

Perimeter of rectangle is 48 cm

$$2(l + b) = 48$$

From (2) $2l + 2b = 48$ from (1)

$$2l + l = 48$$

$$\therefore 3l = 48$$

$$l = \frac{48}{3} = 16$$

$$l = 16, b = 8$$

Area of rectangle = $l \times b$

$$= 16 \times 8 = 128 \text{ cm}^2$$

84. Option (1) is correct.

Explanation:-

c _ b b a _ c a b _ a c _ a b _ a c

Only option (1) a, c, b, c, b complete the sequence i.e.

c _ a b b a _ c c a b b a c c a b b a c

85. Option (3) is correct.

Explanation:-

Note: The value of $\cos\theta \neq \frac{5}{4}$ ($\theta \in R$)

$$\text{Given } \sin\theta = \frac{3}{4} \text{ and } \cos\theta = \frac{5}{4}$$

$$\therefore \tan\theta = \frac{\sin\theta}{\cos\theta} = \frac{3}{4} \times \frac{4}{5} = \frac{3}{5}$$

$$\cot\theta = \frac{5}{3}$$

$$\text{Then, } \frac{1 + \tan\theta}{1 - \cot\theta} = \frac{1 + \frac{3}{5}}{1 - \frac{5}{3}} = \frac{\frac{8}{5}}{\frac{-2}{3}} = \frac{8}{5} \times \frac{-3}{2} = \frac{-12}{5}$$

$$\frac{1 + \tan\theta}{1 - \cot\theta} = \frac{-12}{5}$$

86. Option (1) is correct.

Explanation:-)

$$21 : 11 :: 31 : ?$$

Used concept is $11 \times 2 - 1 = 21$

Same way $16 \times 2 - 1 = 31$

Correct answer is 16.

87. Option (3) is correct.

Explanation:-

| | | |
|----|----|----|
| 28 | 63 | 94 |
| 8 | 18 | ? |
| 6 | 9 | 13 |

Concept is used

$$6^2 - 8 = 36 - 8 = 28$$

$$9^2 - 18 = 81 - 18 = 63$$

$$13^2 - 75 = 169 - 75 = 94$$

Correct value is 75.

88. Option (3) is correct.

Explanation:-

T is Father of P, R's mother is S and P is brother of Q and R

1. T is S's husband (True)

2. S is P's Mother (True)

3. T is Q's husband (False)

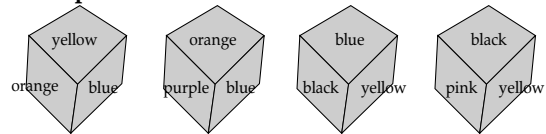
4. T is Q's father (True)

89. Option (3) is correct.

Explanation:- Word TOUGH cannot be formed by using the word 'DAUGHTER' because "O" is not appear in this word.

90. Option (4) is correct.

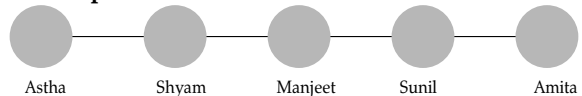
Explanation:-



Black is opposite to the orange.

91. Option (1) is correct.

Explanation:-



Neighbours of Sunil are Manjeet and Amita

92. Option (4) is correct.

Explanation:-

69, 55, 26, 13, ?

Used concept is $(6 \times 9) + 1 = 55$

$$69 - 55 \Rightarrow (6 \times 9) + 1 = 55$$

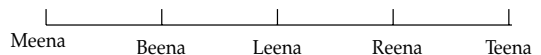
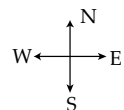
$$55 - 26 \Rightarrow (5 \times 5) + 1 = 26$$

$$26 - 13 \Rightarrow (2 \times 6) + 1 = 13$$

$$13 - 4 \Rightarrow (1 \times 3) + 1 = 4$$

93. Option (2) is correct.

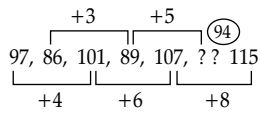
Explanation:-



So, Reena is sitting second to the East.

94. Option (2) is correct.

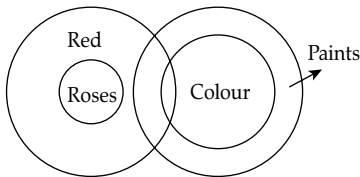
Explanation:-



Correct answer is 94, 115.

95. Option (2) is correct.

Explanation:- Statements : All roses are Red
Some Red are colours, all colours are Paints
Conclusion (I): Some Red are Paints
(II) All Red are Roses

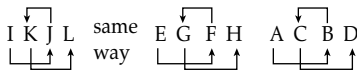


According to this (I) some Red are Paints is Right.

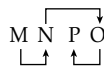
96. Option (3) is correct.

Explanation:-

IKJL EGFH MNPO ACBD



All three are in same manner
But



is in different manner
So, MNPO is different from others.

97. Option (1) is correct.

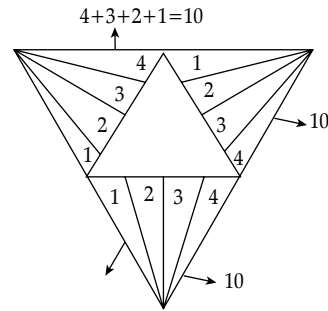
Explanation:-

- Paper : note
- Gift : gift wrap
- Head : Cap
- Hand : glove

As packing of gift we use gift wrap same way to cover his head use glove. We use cap to cover head.
But paper : Note is not matched with other three.

98. Option (3) is correct.

Explanation:-



$$10 + 10 + 10 + 1 + 1 = 32 \text{ triangles}$$

99. Option (1) is correct.

Explanation:-

5, 10, 17, 26, ?

Used concept is

$$2 + 3 = 5$$

$$5 + 5 = 10$$

$$10 + 7 = 17$$

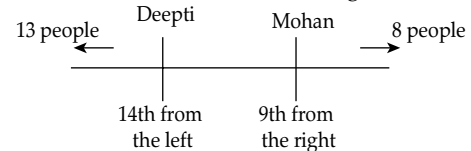
$$17 + 9 = 26$$

$$26 + 11 = 37$$

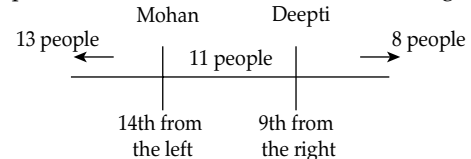
100. Option (3) is correct.

Explanation:-

According to the question. Deepti is 14th from the left and Mohan is 9th from the right



When Deepti and Mohan interchange their position, Mohan becomes 21st from the right



The number of people to the left of Deepti = 13 + 11 + Mohan = 25

Position of Deepti from the left = 26th

Total number peoples in the row = 13 + 11 + 8 + Mohan + Deepti = 34

Hence correct answer is 26, 34.