RRB NTPC CBT 2 (Level-3) Official Paper (Held On: 17 June 2022 Shift 2) (Previous Year Paper)

RRB NTPC • 2022 • 120 questions • 90 minutes • Answer key and solutions

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FULL TEST

Q1. In 1889, _____ established the Mukti Mission, a refuge for young widows who had been deserted and abused by their families.

(a) Rakhmabai Save
(b) Anandibai Joshi
(c) Pandita Ramabai
(d) Ramabai Ranade

Q2. If the roots of the equation $2x^2 - 3x + a = 0$ are in the ratio 1 : 2, then find the value of a.

(a) -1
(b) -2
(c) 2
(d) 1

Q3. From a point Q, the length of the tangent to a circle is 21 cm and the distance of Q from the centre 'O' of the circle is 29 cm. Find the radius of the circle.

(a) 20 cm
(b) 28 cm
(c) 30 cm
(d) 50 cm

Q4. If a product of 0.225, 0.36 and a number N is 243, then what is the value of number N?

(a) 2400
(b) 3300
(c) 3000
(d) 3600

Q5. Which of the following is NOT one of the objectives of Liberalisation?

(a) To develop a global market of a country
(b) To promote foreign trade and regulate imports and exports
(c) To boost competition between domestic businesses
(d) To mitigate effects of the technology and foreign capital

Q6. Rakesh travels in a car at 50 km/h for 2 hours, on a bike at 35 km/h for 2 hours, and in a train at 100 km/h for 4 hours. What is the average speed at which Rakesh travelled?

(a) 75 km/h
(b) 72.50 km/h
(c) 71.25 km/h
(d) 74 km/h

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Q7. IANA oversees the allocation of IP address to organisations and individuals. What is the full form of IANA?

(a) Internet Associated Number Authority
(b) Internet Assigned Number Automation
(c) Internet Assigned Numbers Authority
(d) Internet Assigned Nomenclature Authority

Q8. Onges is a tribal group living in which of the following union territories?

(a) Puducherry
(b) Delhi
(c) Andaman and Nicobar
(d) Lakshadweep

Q9. The Government of India Act, 1919 was passed by the British Parliament on the recommendation of _____.

(a) Lord Elgin
(b) Edwin Montague
(c) Charles I
(d) Lord Linlithgow

Q10. With reference to the distribution of Asokan inscriptions, which among the following sites is in the modern state of Gujarat?

(a) Girnar
(b) Kalsi
(c) Shishupalgarh
(d) Sannati

Q11. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.

PJEB : SQHI :: MCQX : PJTE :: LRCT : ?

(a) QWHY
(b) OWFY
(c) QYHA
(d) OYFA

Q12. According to the Global Wind Energy Council, what is India's worldwide rank in terms of installed wind energy capacity as of the year 2020?

(a) Third
(b) Fourth
(c) First
(d) Second

Q13. With reference to deficiency diseases, rickets is caused by the deficiency of _____.

(a) Vitamin B-12
(b) Vitamin C
(c) Vitamin D
(d) Vitamin E

Q14. In which month did the Essential Defence Services Bill, 2021 receive the assent of the President?

(a) January 2022
(b) August 2021
(c) September 2021
(d) December 2021

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Q15. The ratio of savings and expenditure of Kiran is 7 : 13 and his monthly income is Rs. 1,80,000. The savings are divided in the ratio of 4 : 3 between Mutual funds and Equity. What is the amount of money saved in the form of Mutual Funds?

(a) Rs. 36,000
(b) Rs. 45,000
(c) Rs. 39,000
(d) Rs. 63,000

Q16. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.

WJOF : ZORK :: CPNY : FUQD :: XRLD : ?

(a) AWOI
(b) CWQI
(c) AUOG
(d) CUQG

Q17. People of Punjab and Haryana celebrate the Baisakhi festival or Vaisakhi by thanking God for good _____

(a) life
(b) health
(c) climate
(d) harvest

Q18. When 4230, 5986 and 9059 are divided by the greatest number m, the remainder in each case is n. What is the value of (m - n)?

(a) 160
(b) 159
(c) 153
(d) 163

Q19. In September 2021, the Tamil Nadu government declared which day 'Mahakavi' Day to commemorate the death anniversary of India's firebrand poet and freedom fighter Subramania Bharathi?

(a) 15^(th) September
(b) 11^(th) September
(c) 8^(th) September
(d) 5^(th) September

Q20. If a = 17/99, b = 13/47 and c = 34/33, then what is the value of (ab) ÷ c = ?

(a) 17/264
(b) 13/282
(c) 19/289
(d) 21/354

Q21. Six colleagues work together in an office. Ted is younger than Ann. Elle is older than Ricky. Stuart is older than Ted. Ted is of the same age as Elle. Ricky is not younger than Veronica. Stuart is younger than Ann. Which of the following options is NOT correct according to the above information?

(a) Elle is not older than Ann.
(b) Ricky is older than Ted.
(c) Veronica is younger than Ted.
(d) Stuart is older than Elle.

Q22. Team India scored runs in the first 30 overs in an ODI match at an average of 5.6 runs per over. What is the required runs per over in the remaining 20 overs at which the team has to score to meet a total target of 320?

(a) 8.9 runs per over
(b) 6.4 runs per over
(c) 7.6 runs per over

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(d) 4.6 runs per over

Q23. Select the number from among the given options that can replace the question mark (?) and continue the given series.

113, 115, 119, 125, 133, ?

(a) 141
(b) 147
(c) 152
(d) 143

Q24. 5/6 × 3/7 + y = 29/63. What is the value of (10y - 1)?

(a) 13/126
(b) 2/63
(c) • 3/63
(d) 5/42

Q25. Which is the largest inland saltwater lake in India?

(a) Devtal Lake
(b) Pushkar Lake
(c) Lonar Lake
(d) Sambhar Lake

Q26. If 27.5% of a number is 11, then the number is:

(a) 40
(b) 36
(c) 48
(d) 44

Q27. In association with whom did the Science and Engineering Research Board (SERB) launch the 'Fund for Industrial Research Engagement (FIRE)' in June 2021?

(a) Microsoft
(b) Cisco
(c) Intel India
(d) Infosys

Q28. In a certain coding language, TOTAL is written as 68 and PEN is written as 35. In the same language, what will OIL be written as?

(a) 66
(b) 46
(c) 36
(d) 56

Q29. A question is given, followed by two statements labelled I and II. Identify which of the statements is/are sufficient to answer the question.

Question: Who is older Rahul or Vishal?

Statements:

I. Rahul was born in the year 1987 and is 5 years younger than Vishal's sister.

II. Vishal is twice as old as his sister.

(a) Statement I alone is sufficient to answer the Question
(b) Both the statements together is not sufficient to answer the Question
(c) Statement II alone is sufficient to answer the Question
(d) Both the statements together is needed to answer the Question

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Q30. The Indian Constitution was the lengthiest Constitution at the time of its adoption which originally had _____ Articles.

(a) 395
(b) 448
(c) 444
(d) 348

Q31. What is the rank of India in the World Happiness Report of 2021?

(a) 191
(b) 87
(c) 28
(d) 139

Q32. The audible range of sound for human beings extends from about _____.

(a) 20 Hz to 20,000 Hz
(b) 10 Hz to 10,000 Hz
(c) 40 Hz to 40,000 Hz
(d) 30 Hz to 30,000 Hz

Q33. In ammonia, nitrogen and hydrogen are present in the ratio _____ by mass.

(a) 1 : 3
(b) 11 : 6
(c) 14 : 3
(d) 9 : 6

Q34. A student walks from his house at 2.5 km/hour and reaches his school 6 minutes after school time. Next day he increases his speed by 1 km/hour and reaches his school 6 minutes before school time. How far is the school from his house?

(a) 2.5 km
(b) 1.75 km
(c) 2.25 km
(d) 2 km

Q35. The total surface area of a solid right circular cylinder of height 9 cm is 704 cm^2. Its volume is 11k cm^3. Find the value of k. ($\pi = 22/7$)

(a) 122
(b) 126
(c) 125
(d) 121

Q36. Which of the following options will be the most approximate value that will come in place of the question mark (?) in the following equation?

259.99 ÷ 24.99 × 35.01 - 29.98 × 9.96 = ?

(a) 95
(b) 64
(c) 75
(d) 80

Q37. If 21^(st) March 2021 was a Sunday, then what will be the day on 12^(th) January 2022?

(a) Wednesday
(b) Monday
(c) Sunday
(d) Friday

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Q38. According to the Indian Constitution, every Panchayat, unless sooner dissolved under any law for the time being in force, shall continue for _____ years from the date appointed for its first meeting and no longer.

(a) 4
(b) 6
(c) 7
(d) 5

Q39. There are five friends, Leo, Casey, Pamela, Alisha and Andrew. Each one likes a different fruit: Apple, Mango, Strawberry, Pear and Apricot, not necessarily in the same order. Also, each of them have different professions: dancer, actor, singer, doctor and professor, not necessarily in the same order.

The one who likes Pear is a professor. The one who likes Mango is a singer or a doctor. Leo likes Apple but is neither a dancer nor a doctor. Casey is a singer. Andrew likes Pear. The one who is a singer likes Apricot. Alisha likes Strawberry.

Who is the doctor by profession?

(a) Alisha
(b) Casey
(c) Andrew
(d) Pamela

Q40. Six horses numbered as A, B, C, D, E and F are participating in a horse race. On the race track horse C is standing between horse A and horse E as its immediate neighbours. Horse D is not standing at any of the extreme ends. Horse B is standing to the immediate right of horse E. Horse F is not standing at the extreme right end. Horse D is standing at fourth to the left of horse B.

If all the horses are facing towards north, which horse is standing at the extreme left end?

(a) A
(b) B
(c) F
(d) C

Q41. Rechungma, Gha To Kito and Chi Rmu are the dance forms of _____.

(a) Sikkim
(b) Manipur
(c) Andaman and Nicobar Islands
(d) Goa

Q42. Which of the following is the correct definition of liberalisation ?

(a) It is the process by which an economy is transformed from an agricultural one to the manufacturing of goods.
(b) It is a policy that focuses on the boosting of government laws and restrictions in order to encourage greater participation by public entities.
(c) It is a situation where there is a single seller in the market.
(d) It is a process of removing controls systems in order to encourage economic development.

Q43. Maski, an archaeological site in _____ district, of Karnataka came into prominence with the discovery of a minor rock edict of Emperor Ashoka by C. Beadon in 1915.

(a) Udupi
(b) Yadgir
(c) Hassan
(d) Raichur

Q44. The length of each side of a regular hexagon is $2\sqrt{3}$ cm. What is the area of the given hexagon?

(a) 18 cm^2
(b) 54 cm^2
(c) $18\sqrt{3}$ cm^2
(d) $24\sqrt{3}$ cm^2

Q45. Select the number from among the given options that can replace the question mark (?) in the following series.

16, 29, 46, 65, 88, ?

(a) 117
(b) 123
(c) 119
(d) 101

Q46. The Badshahi Masjid in Lahore was built by _____.

(a) Sher Shah Suri
(b) Aurangzeb
(c) Humayun
(d) Iltutmish

Q47. If a + b = 15, and $a^2 + b^2 = 113$, then what is the value of $a^3 + b^3$?

(a) 865
(b) 845
(c) 855
(d) 875

Q48. The Total Revenue Curve of a firm shows the relationship between the _____ made by the firm and the output level of the firm.

(a) quarterly revenue
(b) investment
(c) total revenue
(d) semi-annual revenue

Q49. Two statements are given, labelled I and II. These statements may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statement. Read both the statements and decide which of the following options correctly depicts the relationship between these two statements.

Statements:

I. Students called off their protest they held against insufficient employment opportunities.

II. Students went on protest anticipating inability of government to provide employment.

(a) Both the statements, I and II, are effects of independent causes.
(b) Statement I is the cause and statement II is its effect.
(c) Both the statements, I and II, are independent causes.
(d) Statement II is the cause and statement I is its effect.

Q50. Let x be the least number lying between 8000 and 8500, which when divided by 12, 14, 16, 35 and 84, the remainders are 4, 6, 8, 27 and 76, respectively. The tens digit in x is :

(a) 9
(b) 7
(c) 8
(d) 5

Q51. Read the given statement and conclusions carefully. Decide which of the given conclusions is/are true based on the given statement.

Statement:

$Z > H \geq Y > R < D \geq F > X$

Conclusions:

I. $Z \geq X$

II. $F > H$

(a) Neither conclusion I nor II is true
(b) Only conclusion II is true

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(c) Only conclusion I is true
(d) Both conclusions I and II are true

Q52. In the series 11, 19, 27, 35, 43, ... which of the following will NOT be a number of the series?
(a) 434
(b) 107
(c) 307
(d) 195

Q53. P and Q like to drink coffee and tea. R and S like coffee and energy drink. Q and S like tea and cold drink. R, S and T like energy drink and ice-tea.
Who among the following likes only three drinks, viz., coffee, tea, and cold drink?
(a) R
(b) T
(c) Q
(d) P

Q54. 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:
a) Some scarfs are shawls.
b) Some shawls are mufflers.
Conclusions:
I. Some scarfs are mufflers.
II. Some mufflers are shawls.
(a) Neither conclusion I nor II follows.
(b) Only conclusion II follows.
(c) Both conclusions I and II follow.
(d) Only conclusion I follows.

Q55. Which Five Year Plan of India was chalked out for the period spanning 1974 to 1979 with the objective of increasing the employment level, reducing poverty, and attaining self-reliance?
(a) First Five-Year Plan
(b) Third Five-Year Plan
(c) Fifth Five-Year Plan
(d) Second Five-Year Plan

Q56. Which of the following numbers is divisible completely by both 9 and 11?
(a) 12345
(b) 277218
(c) 181998
(d) 10098

Q57. The central board of the Reserve Bank of India can have a maximum of _____ full time Deputy Governors at any given time.
(a) 4
(b) 2
(c) 5
(d) 3

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Q58. The Andaman and Nicobar Island group of India is an emergent part of which of the following submerged mountain range?

(a) Kunlun Shan
(b) Eastern Ghats
(c) Arakan Yoma
(d) Himalayas

Q59. 20 people can do a piece of work in 12.5 days. After 8 days, 8 workers left. In how many days will the remaining work be completed?

(a) 7.5
(b) 8
(c) 9
(d) 6

Q60. A sum of money invested at 10% compound interest per annum amounts to Rs. 10,164 in 2 years, interest compounded annually. What was the sum invested?

(a) Rs. 8,800
(b) Rs. 8,200
(c) Rs. 8,300
(d) Rs. 8,400

Q61. Which of the following numbers is divisible by 11?

(a) 1120121
(b) 1201121
(c) 1210121
(d) 1210211

Q62. The length and the breadth of a rectangular park are in the ratio 7 : 3. The perimeter of the park is 21000 m. What is the difference between the length and the breadth of the park?

(a) 4200 m
(b) 3675 m
(c) 3150 m
(d) 3400 m

Q63. Reading the given cluster from left to right, how many consonants are there that are immediately followed by a vowel?

(Left) A T G H @ 7 D O G K I 7 # P E 4 1 D & G O H 4 @ 3 1 K M B U C D (Right)

(a) 4
(b) 5
(c) 3
(d) 6

Q64. Rohtang pass is located in which of the following states?

(a) Arunachal Pradesh
(b) Uttarakhand
(c) Sikkim
(d) Himachal Pradesh

Q65. In which of the following continents does the Union Pacific Railroad operate?

(a) South America
(b) North America
(c) Australia
(d) Asia

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Q66. If ÷ means addition, × means subtraction, + means multiplication and - means division, then 30 - 10 + 4 × 6 ÷ 4 = ?

(a) 11
(b) 10
(c) 13
(d) 12

Q67. Two children A and B have some toffees. If A has 8 toffees, and B has one toffee more than 50% of the total toffees with them, then how many toffees does B have?

(a) 10
(b) 9
(c) 12
(d) 8

Q68. When α = 30° degrees, what is the value of sinα cosα?

(a) √3 over 3
(b) √3 over 2
(c) √3 over 4
(d) 3 over 4

Q69. What is the address of the cell in the seventh column of the sixth row in an MS-Excel worksheet?

(a) F6
(b) G7
(c) F7
(d) G6

Q70. Which Article of the Indian Constitution is related with powers, authority and responsibilities of Panchayats?

(a) 243G
(b) 243F
(c) 243E
(d) 243H

Q71. In a certain code language, 'MANGO' is written as 'NCQKT', 'APPLE' is written as 'BRSPJ', how will 'PEARS' be written in that language?

(a) QGDVX
(b) QDDVY
(c) QGDVW
(d) QGDUW

Q72. A student has exactly eight books A, B, C, D, E, F, G and H, from which he must choose exactly five to be put in a bag.

Any combination is acceptable, provided it meets the following conditions:

*If A is chosen, F cannot be chosen.

*If B is chosen, E must also be chosen.

*If D is chosen, G must also be chosen.

Choose from the given options below, the combination of books which satisfies given three conditions.

(a) B, D, E, F, G
(b) B, C, D, F, G
(c) A, B, D, E, F
(d) A, B, C, D, G

Q73. In a seven - storeyed building, having floors numbered from 1 to 7, A, B, C, D, E, and F each live on a different floor. The ground floor is numbered floor number 1, the floor above it is floor number 2 and so on. One of the floors in the building is vacant. B lives on the floor no.6. No floor below the floor no. 3 is vacant; and no odd numbered floor is vacant. Only B lives between the floors of A and F. Only one person lives between E and D. "Only two floors are between C and F. C lives on one of the floors below F. More than one person lives between D and B. Which of the

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following floor numbers is vacant?

(a) 4
(b) 7
(c) 6
(d) 5

Q74. Five friends Amit, Bablu, Chirag, Deepak and Eklavya, each having different occupations Advocate, Boxer, Coach, Doctor and Engineer, are sitting around a circular table facing the centre.

1. Bablu is a Boxer and Deepak is a Doctor.
2. Amit sits second to the right of Chirag, who is a Coach.
3. The Boxer will never sit immediately next to the Coach.
4. The Doctor and Boxer are immediate neighbours of each other.

Who sits to the immediate right of Chirag?

(a) Deepak
(b) Bablu
(c) Amit
(d) Eklavya

Q75. Which Mauryan emperor led a military campaign to conquer Kalinga, around 260 BCE?

(a) Brihadratha
(b) Ashoka
(c) Bindusara
(d) Chandragupta Maurya

Q76. The value of (48 ÷ 72 × 3) - [15 ÷ 8 × (40 - 32) - 10] is :

(a) -4
(b) 3
(c) -3
(d) 4

Q77. By selling an item for Rs. 4,125, A gains 10%. At what price (in Rs.) should he sell the item in order to gain 18%?

(a) 4,400
(b) 4,425
(c) 4,510
(d) 4,450

Q78. Out of 60 students in a group, the ratio of the number of boys to that of girls is 2 : 1. If the average weight of boys is 50 kg and that of girls is 44 kg, then what is the average weight (in kg) of all the students in the group?

(a) 48.25
(b) 47.5
(c) 49
(d) 48

Q79. Kiran has 24 white beads and Resham has 18 black beads. They want to arrange the beads in such a way that each row contains an equal number of beads and each row must contain either only black beads or only white beads. What is the greatest number of beads that can be arranged in a row?

(a) 8
(b) 3
(c) 6
(d) 12

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Q80. As per the Article 7 of the Constitution of India, any person who has after the _____ migrated from the territory of India to the territory now included in Pakistan shall not be deemed to be a citizen of India.

(a) 1^(st)of March 1947
(b) 18^(th)of August 1947
(c) 19^(th)of July 1947
(d) 1^(st)of April 1947

Q81. Travelling at 3 over 5 of her usual speed, Simran covered a distance of 42 km in 35 minutes. What distance (in km) will Simran cover in 27 minutes if she travels at her usual speed?

(a) 64
(b) 60
(c) 54
(d) 48

Q82. A sum of Rs. 14,500 was invested at 9% per annum simple interest for few years. The interest accrued during this period was Rs. 7,830. What was the period of investment?

(a) 5 years
(b) 7 years
(c) 6 years
(d) 4 years

Q83. The 16th G-20 Summit was held in _____.

(a) Paris
(b) Rome
(c) Osaka
(d) Chicago

Q84. Find the compound interest on Rs. 2000 at 10% p.a. for 2 years, compounded annually.

(a) Rs. 200
(b) Rs. 420
(c) Rs. 520
(d) Rs. 400

Q85. Which urban renewal project of India won the UNESCO Asia-Pacific Awards for Cultural Heritage Conservation in December 2021?

(a) Nizamuddin Basti Project
(b) Qutub Shahi tombs Project
(c) Sundar Nursery Project
(d) Jaisalmer Fort Project

Q86. Which multiplier theory states that the economy will flourish the more the government spends?

(a) Earning Multiplier
(b) Fiscal Multiplier
(c) Keynesian Multiplier
(d) Investment Multiplier

Q87. India won the U19 Asia Cup Cricket, 2021, by defeating _____.

(a) Afghanistan
(b) Sri Lanka
(c) Bangladesh
(d) Pakistan

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Q88. If 20 May 2018 was a Sunday, then what was day it on 26 August 2018?

(a) Friday
(b) Thursday
(c) Saturday
(d) Sunday

Q89. If Radha is sitting to the south of Krishna and Rahul is sitting to the east of Krishna, in which direction is Radha sitting with respect to Rahul?

(a) North-West
(b) South-West
(c) South-East
(d) North-East

Q90. Four people Shweta, Ranu, Ekagra and Tanmay are seated at the four corners of a square table. Two of them are facing the centre while two are facing in the direction opposite to the centre. Ranu is seated to the immediate right of both Tanmay and Shweta. Shweta is sitting to the immediate right of Ekagra. Tanmay is seated to immediate left of Ekagra. Ekagra is not facing the centre.

Who among the four is not facing the centre?

(a) Ekagra and Tanmay
(b) Ekagra and Ranu
(c) Shweta and Ekagra
(d) Shweta and Ranu

Q91. In a stock of two products A and B initially 80% of the total stock was product A. If 20 kg of product A and 8 kg of product B were taken out from the stock, then the ratio of the product A to product B in the stock changed to 9 : 2. What was the total stock (in kg) in the beginning?

(a) 150 kg
(b) 165 kg
(c) 220 kg
(d) 160 kg

Q92. Select the number from among the given options that can replace the question mark (?) in the following series.

100, 93, 103, 96, 106, 99, ?

(a) 123
(b) 109
(c) 127
(d) 132

Q93. Which of the following states has the largest Balance Recoverable Reserves (Onshore) of Crude oil as of 01.04.2019, as per the Indian Petroleum and Natural Gas Statistics, 2018-19?

(a) Maharashtra
(b) Gujarat
(c) Assam
(d) Tamil Nadu

Q94. How many such pairs of letters are there in the word COMFORTS (in both the forward and backward directions) which have as many letters between them in the word as there are in the English alphabetical order?

(a) 1
(b) 4
(c) 2
(d) 6

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Q95. Which of the following states was the largest producer of iron ore in the country in the year 2019-20 as per the Indian Minerals Yearbook 2020?

(a) Karnataka
(b) Odisha
(c) Chhattisgarh
(d) Jharkhand

Q96. Which country successfully test fired Zircon hypersonic cruise missile in November 2021?

(a) China
(b) Germany
(c) Russia
(d) France

Q97. Ravish Kumar starts running facing towards the south. He runs for 20 m, then takes a left turn, and then runs for another 30 m. Again, he takes a left turn and runs 70 m. He then finally turns left and walks 30 m.

What is the current position of Ravish with respect to the starting point? (All turns are 90° turns only)

(a) North, 50 m
(b) South, 70 m
(c) West, 20 m
(d) East, 30 m

Q98. Which woman scientist received the Padma Shri, 2022, in the field of Science and Engineering?

(a) Dr. Sanghamitra Bandyopadhyay
(b) Dr. Lata Desai
(c) Dr. Najma Akhtar
(d) Dr. Madhuri Barthwal

Q99. In a certain code language, BUT is written as DWV and LOW is written as NQY. How will CUP be written in that language?

(a) RWE
(b) EWR
(c) UCP
(d) PUC

Q100. Who among the following was Governor of both Andhra Pradesh and Telangana in June 2019?

(a) ND Tiwari
(b) Biswabhusan Harichandan
(c) Chandulal Madhavlal Trivedi
(d) ESL Narasimhan

Q101. Which of following biomes is known for its coniferous (cone-bearing evergreen) forests?

(a) Boreal forest
(b) Tropical rain-forest
(c) Chaparral forest
(d) savanna forest

Q102. Pipes A and B can fill a tank in 30 hours and 45 hours, respectively while pipe C alone can empty the full tank in 20 hours. When the tank is full, C alone is opened for 8 hours and then closed and pipes A and B are opened together at the same time. Now, how much time will pipes A and B together take to fill the tank completely?

(a) 7.5 hours
(b) 8 hours
(c) 7.8 hours
(d) 7.2 hours

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Q103. Rajesh needs to buy some cardboard to build a box that is 12 inches long, 8 inches wide, and 10 inches high. How much cardboard is needed to build the box?

(a) 350 sq inches
(b) 592 sq inches
(c) 960 sq inches
(d) 400 sq inches

Q104. The average score in Mathematics of a class of 36 students is 60. If the top two scores are excluded, the average goes down by 2. If the second highest score of the class is 90, find the highest score of the class.

(a) 96
(b) 99
(c) 98
(d) 95

Q105. Which among of the following languages, is not a part of Eighth Schedule of Indian Constitution? (As of March 2022)

(a) Tamil
(b) Rajasthani
(c) Punjabi
(d) Bodo

Q106. Who amongst the following has the Constitutional authority to conduct the audit of the financial transactions of the union and state governments and union territories?

(a) The State Public Service Commission
(b) The Attorney General of India
(c) The Finance Commission
(d) The Comptroller and Auditor General

Q107. 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 rocks are bangles.

No bangle is ring.

Some rings are chains.

Conclusions:

I. Some bangles are rocks.

II. Some chains are bangles.

(a) Both conclusions I and II follow
(b) Only conclusions I follows
(c) Neither conclusion I nor II follows
(d) Only conclusions II follows

Q108. In August 2021, Neeraj Chopra won the gold medal at Tokyo Olympics in the _____ event.

(a) Javelin throw
(b) Badminton
(c) Shooting
(d) Fencing

Q109. Bon-geet (forest/nature song), is primarily a form of folk song of _____.

(a) Meghalaya
(b) Himachal Pradesh
(c) Manipur
(d) Assam

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Q110. In ΔABC, DE || BC, intersecting AB at D and AC at E. AD : BD :: 2 : 3 and the area of trapezium BDEC is 63 cm². What is the area of ΔADE?

(a) 14 cm²
(b) 12 cm²
(c) 28 cm²
(d) 42 cm²

Q111. In a certain code language, 'BLISS' is coded as 'MAITR' and 'JAPAN' is coded as 'BIPOZ'. How will 'GLOBE' be coded in that language?

(a) MFOCD
(b) MFOFA
(c) MFOEA
(d) MFACD

Q112. Pointing at a picture, Yuvika said that the boy in the picture is the son of her father's mother's daughter. How is that boy related to Yuvika?

(a) Brother
(b) Mother's brother's son
(c) Father's sister's son
(d) Father' brother

Q113. Maasai people are the natives of which of the following continents?

(a) Europe
(b) Australia
(c) South America
(d) Africa

Q114. The hemispherical bowl of internal radius 24 cm is full of liquid. This liquid is to be filled in cylindrical bottles, each of internal radius 6 cm and height 8 cm. How many bottles are required to empty the bowl?

(a) 35
(b) 30
(c) 36
(d) 32

Q115. Which of the following branches of language does NOT belong to the Indo-European family of languages?

(a) Italic
(b) Celtic
(c) Germanic
(d) Finno-Ugric

Q116. Read the given information carefully and answer the question the follows.

Ganesh, Raju, Rohit, Isha, Janak, Preeti, Chandan and Madhur are eight employees who are sitting for a discussion around a circular table, facing its centre. Their professions are Pilot, Doctor, Publisher, Engineer, General Manager, Union Leader, Researcher and Dean, but not necessarily in the same order. Raju is sitting second to the left of Preeti. The Dean is to the immediate left of Preeti. Only three people are there between the Dean and Ganesh. There is only one person sitting between the Engineer and Ganesh. The Publisher is sitting to the immediate right of the Engineer. Madhur is sitting second to the right of Preeti. Isha is the Dean. Rohit and Janak are immediate neighbours of each other. Neither Rohit nor Janak is the Engineer. The General Manager is sitting to the immediate left of Raju. The Union Leader is sitting second to the right of the Publisher. The Researcher is an immediate neighbour of the Engineer. Rohit is sitting second to the right of the Pilot.

What is the position of Chandan with respect to the Dean?

(a) Second to the right
(b) Third to the left
(c) Third to the right
(d) Second to the left

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Q117. In a class Anu ranked 15^(th) from the bottom and 14^(th) from the top. How many students are there in the class?

(a) 29
(b) 27
(c) 30
(d) 28

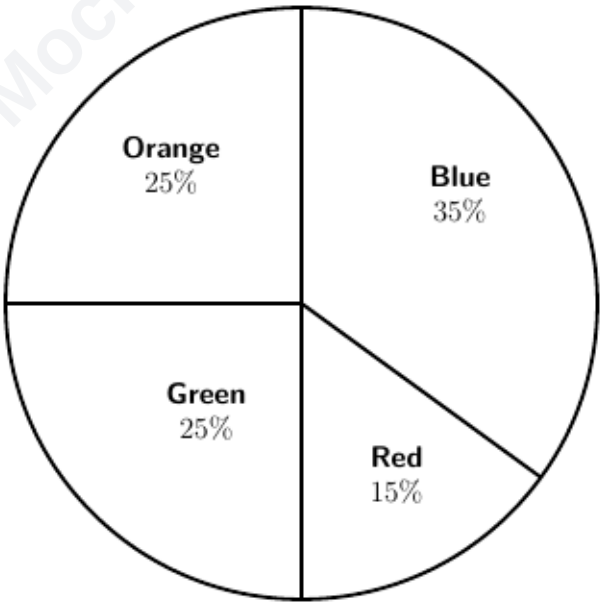
Q118. 'Viklang Shraddha ka Daur' is the work of which noted writer?

(a) Khushwant Singh
(b) Hari Shankar Parsai
(c) Atal Bihari Vajpayee
(d) R. K. Narayan

Q119. All of the following plants have fibrous roots EXCEPT _____.

(a) Beetroot
(b) Maize
(c) Rice
(d) Wheat

Q120. The following pie chart shows the expenditure distribution of a college festival. The blue part represents production expenditure, the green part represents lights and music system expenses, the red part represents advertisement expenses and the orange part represents food expenses. Study the pie chart and answer the following question.



Approximately, how much is spent on food and advertisement together if the total expenditure was Rs. 63,070?

(a) Rs. 20,000
(b) Rs. 25,000
(c) Rs. 35,000
(d) Rs. 30,000

ANSWER KEY

1	c	2	d	3	a	4	c	5	d	6	c	7	c	8	c	9	b	10	a
11	d	12	b	13	c	14	b	15	a	16	a	17	d	18	a	19	b	20	b
21	b	22	c	23	d	24	b	25	d	26	a	27	c	28	c	29	d	30	a
31	d	32	a	33	c	34	b	35	b	36	b	37	a	38	d	39	d	40	c
41	a	42	d	43	d	44	c	45	a	46	b	47	c	48	c	49	a	50	a
51	a	52	a	53	c	54	b	55	c	56	d	57	a	58	c	59	a	60	d

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61	c	62	a	63	b	64	d	65	b	66	b	67	a	68	c	69	d	70	a
71	a	72	a	73	a	74	d	75	b	76	c	77	b	78	d	79	c	80	a
81	c	82	c	83	b	84	b	85	a	86	c	87	b	88	d	89	b	90	c
91	d	92	b	93	c	94	b	95	b	96	c	97	a	98	a	99	b	100	d
101	a	102	d	103	b	104	c	105	b	106	d	107	b	108	a	109	d	110	b
111	b	112	c	113	d	114	d	115	d	116	a	117	d	118	b	119	a	120	b

SOLUTIONS

Q1. Answer: (c) Pandita Ramabai

The correct answer is Pandita Ramabai.

Key Points

• Pandita Ramabai (1858-1922)

• Pandita Ramabai was born in the Canara district of the Madras Presidency (now in Karnataka) on April 23, 1858.

• In order to better the lives of women, particularly child widows, Ramabai pushed girls' education and founded the Arya Mahila Samaj in Pune in 1881.

• She founded the Mukti Mission, a refuge for young widows who had been abandoned and mistreated by their families, in Pune in 1889.

• She also founded Sharda Sadan, which offered shelter, healthcare, education, and vocational training to widows, orphans, and those with visual impairments.

• Because of her intellectual Sanskrit expertise, she is the first woman to be given the title Pandita.

Additional Information

• She died on 5 April 1922.

• In 1919, she receives the Kaisar-i-hind medal for her volunteer work in the community.

• Ramabai is honoured with a "feast day" on the Episcopal Church's liturgical calendar (USA).

• She also authored a number of books that depicted the difficult lives of women, including child widows and child brides.

• Ramabai had learned 18000 Puranas verses by the time she was 12 years old in addition to Sanskrit.

• She studied Bengali, Hindi, Kanarese, and Marathi.

• Her mother was Lakshmibai, and her father, Anant Shastri, was an educated Brahmin.

Q2. Answer: (d) 1

Given:

Roots of the equation 2x2 - 3x + a = 0 are in the ratio 1 : 2

Concept used:

If equation = $ax^2 + bx + c$ then

Sum of roots = -b/a

Product of roots = c/a

Calculations:

Let the roots be α and 2α

According to the question,

=> α + 2α = -(-3)/2 = 3/2

=> 3α = 3/2

=> α = 1/2

And, α × 2α = a/2

=> $2\alpha^2$ = a/2

=> a = 4α2

=> a = 4(1/4) = 1

Therefore The value of a is 1.

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Q3. Answer: (a) 20 cm

Given:

The length of the tangent to a circle is 21 cm

The distance of Q from the centre 'O' of the circle is 29 cm

Concept used:

Pythagorean Theorem = $(\text{Hypotenuse})^2 = (\text{Perpendicular})^2 + (\text{Base})^2$

The tangent forms right-angle with the centre or radius of the circle.

Calculation:

According to the question,

$(QO)^2 = (\text{Radius})^2 + (\text{Tangent})^2$

=> (29)2 = (Radius)2 + (21)2

=> (Radius)2 = (29)2 - (21)2

=> (Radius)2 = (841) - (441)

=> Radius = $\sqrt{400}$ = 20 cm

Therefore The Radius of the circle is 20 cm.

Q4. Answer: (c) 3000

Given:

Numbers 0.225, 0.36 and N

Their product = 243

Calculation:

According to the given question,

=> 0.225 × 0.36 × N = 243

=> 225/1000 × 36/100 × N = 243

=> 8100/100000 × N = 243

=> N = 3000

Hence, the value of number N is 3000.

Q5. Answer: (d) To mitigate effects of the technology and foreign capital

The correct answer is To mitigate the effects of the technology and foreign capital.

Key Points

• Liberalisation

• The phrase "liberalisation" refers to the removal of limitations on a range of private individual activities, frequently related to the economy.

• Commonly, it refers to a government removing constraints it had previously put on economic or social policy.

• India's economic reform was aided by its 1985 balance of payments crisis.

• Due to the crisis, the nation was unable to cover both its debt obligations and necessary imports.

• Liberalization in India was started by ministers like Atal Bihari Vajpayee, Manmohan Singh, and P.V. Narasimha Rao.

• Objectives of Liberalisation

• To address the growing balance of payment crisis in India.

• To increase the private sector's involvement in the growth of India's economy.

• To boost the amount of foreign investment made in Indian enterprises.

• To encourage domestic Indian corporate competitiveness.

• To encourage domestic and international businesses to grow in order to maximise India's economic potential.

• To help the Indian economy transition to a global economy.

• To control imports and export and encourage international trade.

Additional Information

• Although there had been unsuccessful attempts in 1966 and 1980, India's liberalisation project ultimately took off in 1991.

• The idea of economic liberalisation was adopted in India in order to achieve a number of goals, including industrialisation, a greater role for private and international investment, and the establishment of a free market economy.

• A number of important industries that were previously only accessible to the public sector have reduced their restrictions for private companies.

• After the introduction of liberalisation, India experienced the following improvements:

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• All prohibitive barriers to international investing were eliminated.
• In India and other large countries, capital flowed unrestrictedly.
• Ever since the economy was liberalised, the Indian stock market has increased.
• Politics-related dangers decreased.
• The investors were spread out.

Q6. Answer: (c) 71.25 km/h

Given :
Rakesh travels in a car at 50 km/h for 2 hours,
he travels on a bike at 35 km/h for 2 hours
And travels in a train at 100 km/h for 4 hours.
Formula used :
Speed = Distance/Time
average speed = Total distance travelled / Total time taken
Calculations :
Distance travelled by Rakesh in car = 50 × 2 = 100 km
Distance travelled by Rakesh on bike = 35 × 2 = 70 km
Distance travelled by Rakesh in train = 100 × 4 = 400 km
And total time taken = (2 + 2 + 4) = 8 hours
Therefore, average speed = Total distance travelled/Total time taken
--> average speed = 570/8 = 71.25 km/h
Hence, the average speed = 71.25 km/h.

Q7. Answer: (c) Internet Assigned Numbers Authority

The correct answer is Internet Assigned Numbers Authority.
Key Points
• Internet Assigned Numbers Authority (IANA)
• The IANA is a standards body that manages media types, global IP address allocation, root zone management in the Domain Name System (DNS), autonomous system number assignment, and other Internet Protocol-related numbers and symbols.
• It is currently carried out by ICANN, a nonprofit private American business founded in 1998 largely for this purpose under a contract with the United States Department of Commerce.
• From 1998 until 2016, IANA was run by ICANN directly before being handed to Public Technical Identifiers (PTI), an ICANN subsidiary that still manages IANA today.
• Before that, Jon Postel oversaw IANA primarily at the University of Southern California's (USC) Information Sciences Institute (ISI), located in Marina Del Rey (Los Angeles), as part of a deal the USC/ISI had with the US Department of Defense.
• IANA performs its duty in close coordination with the RFC Editorial team and the Internet Engineering Task Force (IETF).
Additional Information
• Regional Internet Registries (RIRs) receive IP address block allocations from IANA.
• Addresses are distributed by each RIR for a certain region of the globe.
• The Number Resource Organization was established by the RIRs collectively as a body to represent their shared interests and guarantee that global policy statements are coordinated.
• IANA facilitates the registration of protocols and manages protocol registries in tables of parameters and protocols.
• There were more than 2,800 registrations and sub registries as of 2015.
• IANA is responsible for maintaining the IETF RFC5646-defined IANA Language Subtag Registry.

Q8. Answer: (c) Andaman and Nicobar

The correct answer is Andaman and Nicobar.
Key PointsOnges
• The Onge are an Andamanese ethnic group, indigenous to the Andaman Islands in Southeast Asia at the Bay of Bengal, currently administered by India.
• They are traditionally hunter-gatherers and fishers, but also practice plant cultivation.
• They are designated as a Scheduled Tribe of India.
• They were the sole permanent inhabitants of Little Andaman until the 1940s when their land was stolen by settlers from India, Bangladesh and the Nicobar Islands.

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• Andaman and Nicobar islands are one of the union territories of India.

Additional Information

• Union Territories of India

• A union territory is a type of administrative division in the Republic of India.

• Unlike the states of India, which have their own governments, union territories are federal territories governed, in part or in whole, by the Union Government of India.

• There are currently eight union territories of India: Ladakh, Jammu & Kashmir, Puducherry, Lakshadweep, Delhi, Chandigarh, Dadra and Nagar Haveli and Daman & Diu, Andaman and Nicobar Islands.

• Tribal groups

• Indigenous and tribal peoples are often known by national terms such as native peoples, aboriginal peoples, first nations, adivasi, janajati, hunter-gatherers, or hill tribes.

Q9. Answer: (b) Edwin Montague

The correct answer is Edwin Montague.

Key Points

• Government of India Act

• Came into force in 1921.

• This Act is also known as Montagu-Chelmsford Reforms(Montagu was the Secretary of State for India and Lord Chelmsford was the Viceroy of India).

• This act relaxed the central control over the provinces by demarcating and separating the central and provincial subjects.

• Edwin Montague

• He was a British Liberal politician who served as Secretary of State for India between 1917 and 1922.

• He was a radical Liberal and the third practising Jew to serve in the British cabinet.

Additional Information

• Lord Elgin

• Former Governor-General of India.

• Right-wing British Liberal politician who served as Viceroy of India from 1894 to 1899.

• Charles I

• Monarch of England.

• During Charles' reign, his actions frustrated his Parliament and resulted in the wars of the English Civil War, eventually leading to his execution in 1649.

• Lord Linlithgow

• He also was a British Unionist politician, agriculturalist, and colonial administrator.

• He served as Governor-General and Viceroy of India from 1936 to 1943.

Q10. Answer: (a) Girnar

The correct answer is Girnar.

Key PointsGirnar

• The group of mountains in the Junagadh District of Gujarat, India, situated near Junagadh.

• Girnar Hill is believed to be the Nirvana bhumi of 22nd Tirthankara Lord Neminatha.

• Height: 128m

• Fourteen of Ashoka's Major Rock Edicts, dating to circa 250 BCE, are inscribed on a large boulder.

Ashokan Inscriptions

• Ashokan inscriptions occupy a very significant place in the history of India.

• They are very helpful in reconstructing the history of the Mauryan period.

• These inscriptions have been found on stones, polished stone pillars and the walls of the caves.

• The inscriptions on rocks are called Rock Edicts and on pillars pillar Edicts.

• The inscriptions of Ashoka have been found in India, Nepal, Pakistan and Afghanistan.

Additional InformationKalsi

• Kalsi is a town in Dehradun District, Uttarakhand.

• It is known for the Rock edicts of Khalsi, a group of major inscriptions by emperor Ashoka.

• The Khalsi rock contains the Major Rock Edicts 1 to 14.

Shishupalgarh

• It is situated in Khurda District in Odisha, India and houses ruined fortifications.

• It used to be the capital of ancient Kalinga.

• It is identified with Kalinganagara of Kharavela and Tosali of Ashoka.

Sannati

• Sannati or Sannathi is a small village, located on the banks of the Bhima River in Chitapur taluk of Kalaburagi district of Northern Karnataka.

• It is famous for the Chandrala Parameshwari Temple and the excavations by the Archaeological Survey of India done in 1986.

Q11. Answer: (d) OYFA

The logic followed here is:

The positional values of the English alphabets are as follows:

The above mentioned pattern is followed in the letter cluster.

Using the same, we deduce the required answer for the given question.

PJEB : SQHI :: MCQX : PJTE :: LRCT : OYFA

Hence, OYFA is the correct answer.

Q12. Answer: (b) Fourth

The correct answer is Fourth.

Key Points

• India is fourth on the list of countries with the highest wind energy capacity, with all of its near 39 GW located onshore.

• The country currently has no installed offshore capacity, although has outlined targets to deploy 5 GW by 2022 and 30 GW by 2030.

Additional Information Global Wind Energy Council

• It was established in 2005 to provide a credible and representative forum for the entire wind energy sector at an international level.

• China is the world leader in wind energy 288.32 GW.

• National Institute of Wind Energy (NIWE) established in Chennai in 1998 by the Ministry of New and Renewable Energy (MNRE), Government of India is an autonomous research and development institution.

Q13. Answer: (c) Vitamin D

The correct answer is Vitamin D.

Key Points

• Rickets

• The softening and weakening of bones in children, usually because of an extreme and prolonged vitamin D deficiency.

• Rare inherited problems also can cause rickets.

• Lack of vitamin D results in reduced absorption of calcium and phosphorus.

• Treatment includes exposure to sunlight, a diet rich in vitamin D and calcium, supplements, medication or possibly surgery.

Additional Information

Name of Vitamin	Deficiency disease	Source	Water soluble/fat soluble	Need
Vitamin -B2	Skin diseases, retarded growth.	Yeast, egg, meat, peas	Water soluble	Body growth and red cell production, releasing energy from carbohydrates
Vitamin-D	Rickets	Cheese, butter, milk, green vegetables, fish liver oil, sunlight	Fat-soluble	Formation of strong bones and teeth
Vitamin-E	_	vegetable oils, spinach, lettuce, turnip leaves, butter, milk, whole grains, and nuts.	Fat-soluble	Protection of cell membrane, formation of red blood cells (RBC)
Vitamin-K	Excessive bleeding from wounds	Cabbage, cauliflower, spinach and other green leafy vegetables, cereals, and soybeans.	Fat-soluble	Clotting of blood

Vitamin-B1	Beri Beri	Seafood, milk, meat, peas, cereals, and green vegetables.	Water-soluble	Growth and development, releasing energy from carbohydrates
Vitamin-B3	Pellagra (affects the skin, alimentary canal and nervous system)	Whole cereals, tomatoes, potatoes, meat and fish.	Water- soluble	Healthy skin, digestion and nervous system
Vitamin-B6	Microcytic anaemia, electroencephalographic abnormalities, dermatitis	Pork, fish, poultry, watermelon	Water-soluble	Help with the immune system
Vitamin-B12	Anaemia	Liver, milk, eggs, fish.	Water-soluble	Forming RBC
Vitamin-C	Scurvy (gums swell and bleed)	Indian gooseberry (amla), lemons, lime, pineapple, oranges, and watermelon.	Water-soluble	Maintenance of ligaments, tendons, other supportive tissues and blood vessels

Q14. Answer: (b) August 2021

The correct answer is August 2021.

Key Points

• Essential Defence Services Bill,2021

• An Act to provide for the maintenance of essential defence services so as to secure the security of the nation and the life and property of the public at large and for matters connected therewith or incidental thereto.

• Under the act, the provisions do not prohibit the workmen from going on strike but require them to fulfil the condition before going on strike.

• The provisions apply to a public utility service only.

Additional Information

• The Essential Defence Services Bill, 2021 has a direct bearing on around 70,000 employees of the 41 ordnance factories around the country, who are unhappy with the corporatisation of OFB, fearing that it will impact their service and retirement conditions.

• In June, the government announced the corporatisation of the Ordnance Factory Board which was otherwise directly under the Department of Defence Production and worked as an arm of the government.

Q15. Answer: (a) Rs. 36,000

Given:

The ratio of savings and expenditure of Kiran is = 7:13

His monthly income is = Rs. 1,80,000.

The savings are divided in the ratio of 4: 3 between Mutual funds and Equity.

Calculations:

Let the ratio of savings and expenditure of Kiran is = 7x:13x

Let the savings are divided in the ratio of 4y: 3y between Mutual funds and Equity.

According to the question,

Total income = Savings + Expenditure

=> 180000 = 7x + 13x

=> 20x = 180000

=> x = 180000/20 = 9000

Saving = 7x

=> 7 × 9000

=> 63000

Total saving = (4y + 3y)

=> 7y

According to question,

7y = 63000

y = 63000/7

=> 9000

The amount of Savings from Mutual Funds = 4y

=> 4 × 9000

=> Rs. 36000

Therefore The amount of money saved in the form of Mutual Funds is Rs. 36000.

Q16. Answer: (a) AWOI

The logic followed here is:

The positional values of the English alphabets are as follows:

The cluster follows +3,+5 addition in the position value alternatively.

The correct sequence will be:

WJOF : ZORK :: CPNY : FUQD :: XRLD : AWOI

Hence, AWOI is the correct answer.

Q17. Answer: (d) harvest

The correct answer is harvest.

Additional Information

• Baisakhi festival

• Significance: Solar new year, harvest festival, the birth of the Khalsa.

• Baisakhi is a major event for the farmers as it commemorates the harvest time of the Rabi season.

• Wheat crops could be seen growing and swinging all across Punjab at this time of year.

• Sikhs hold kirtans, visit local Gurdwaras, and community fairs, hold Nagar kirtan processions, raise the Nishan Sahib flag, and gather to socialize and share festive foods.

Additional Information

• Sikh New Year

• According to the Khalsa sambat, the Khalsa calendar starts with the creation of the Khalsa which is 1 Vaisakh 1756 Bikrami (13 April 1699).

• Vaisakhi has been the traditional Sikh New Year.

• The alternative Nanakshahi calendar begins its year a month earlier on 1 Chait which generally falls on 14 March and begins with the birth year of the Guru Nanak Dev in 1469.

Q18. Answer: (a) 160

GIVEN:

Numbers are 4230, 5986 and 9059

CONCEPT USED:

Dividend = Quotient x Divisor + Remainder

CALCULATION:

Let the numbers are:

4230 = X × m + n.....(1)

5986 = Y × m + n.....(2)

9059 = Z × m + n.....(3)

Where X.Y and Z are quotient, m is divisor and n is remainder,

Now on subtracting equation (3) - (2), (2) - (1), and (3) - (1) we get,

9059 - 5986 = (Z-Y) × m

=> 3073 = (Z-Y) × m

5986 - 4230 =(Y-X) × m

=> 1756 = (Y-X) × m

9059 - 4230 =(Z-X) × m

=> 4829 =(Z-X) × m

Hence H.C.F of (3073,1756, 4829) is m

=> m = 439

Then from equation (1), (2) and (3) we get,

=> 4230 = 9×439 +279

=>5986 =13 ×439 +279

=>9059 =20 ×439 + 279

Hence, m = 439 and n =279

Now, (m-n) = 160.

=> Now, the value of (m-n) =160.

Q19. Answer: (b) 11^(th) September

The correct answer is 11th September.

Key PointsMahakavi Day

• To commemorate the death anniversary of freedom fighter Subramania Bharati.

• Bharati's innovative contributions to Tamil poetry and prose are considered to have sparked a Renaissance in 20th CE Tamil literature.

Additional InformationSubramania Bharathi

• Poet, freedom fighter and social reformer from Tamil Nadu.

• He was known as Mahakavi Bharathiyar and the laudatory epithet Mahakavi means a great poet.

• He is considered one of India's greatest poets.

• He knew 32 languages including 3 foreign languages.

• In 1921 he died from injuries he sustained from a temple elephant in Madras.

• Other names are Bharathi, Subbaiah, Sakthi Dasan, Mahakavi, Mundasu Kavignar, Veera Kavi, Selly Dasan.

Q20. Answer: (b) 13/282

Concept used:

Calculations:

According to the question,

(ab) ÷ c

=> 17/99 × 13/47 ÷ 34/33

=> 17/99 × 13/47 × 33/34

=> 1/3 × 13/47 × 1/2 = 13/282

Therefore The value of the given equation is 13/282.

Q21. Answer: (b) Ricky is older than Ted.

Colleagues : Ted, Ann, Elle, Ricky, Stuart, Veronica.

1) Ted is of the same age as Elle.

=> Ted = Elle

2) Elle is older than Ricky. Ricky is not younger than Veronica.

=> Ted = Elle > Ricky > Veronica

3) Ted is younger than Ann. Stuart is older than Ted.

=> Ann/Stuart > Ann/Stuart > Ted = Elle > Ricky > Veronica

4) Stuart is younger than Ann.

=> Ann > Stuart > Ted = Elle > Ricky > Veronica

Option(1): Elle is not older than Ann => True

Option(2): Ricky is older than Ted. => False [As Ted = Elle > Ricky so, Ted is older than Ricky]

Option(3): Veronica is younger than Ted => True

Option(4): Stuart is older than Elle => True

Hence, "option 2" is the correct answer.

Q22. Answer: (c) 7.6 runs per over

Given:

Run rate (R1) for first 30 overs = 5.6 runs per over

Total target (T) = 320 runs

Total number of overs = 50

FORMULA USED:

Total runs = Run rate × no. of overs

Calculations:

For first 30 overs,
Total runs (T1) = R1 x no. of overs
=> 5.6 × 30 = 168 runs
For next 20 overs,
Total runs (T2) = T - T1
=> 320 - 168 = 152 runs
Now Run rate (R2) = T2 / no. of overs
=> 152 / 20 = 7.6 runs per over.
Therefore Team India needs run rate of 7.6 runs per over to achieve the target of 320 runs.

Q23. Answer: (d) 143

Given:
113, 115, 119, 125, 133, ?
Concept Used:
Next Number = Difference between last two + 2
Calculation:
=> Difference between first two numbers = 115 – 113 = 2
=> Difference between second and third number = 119 – 115 = 4
=> Difference between third and fourth number = 125 – 119 = 6
=> Difference between fourth and fifth number = 133 – 125 = 8
=> Required number = 133 + (Last Difference + 2) = 133 + (8 + 2) = 133 + 10 = 143
Hence, the number which replaces the question mark is 143

Q24. Answer: (b) 2/63

Given:
(5/6) × (3/7) + y = (29/63)
Calculations:
(5/6) × (3/7) + y = (29/63)
=> (15/42) + y = (29/63)
=> y = (29/63) - (15/42)
=> y = (58 - 45)/126
=> y = 13/126
Now for the value of (10y - 1)
(10y - 1) = 10(13/126) - 1
=> (130/126) - 1
=> (130 - 126)/126
=> 4 / 126 = 2/63
Therefore The value of (10y - 1) is 2/63.

Q25. Answer: (d) Sambhar Lake

The correct answer is Sambhar Lake.
Key Points Sambhar Lake
• India's largest inland salt lake is located in Sambhar Lake Town, Jaipur district of Rajasthan.
• It is 80 km southwest of the city of Jaipur and 64 km northeast of Ajmer, Rajasthan.
• It is famous for harbouring flamingos in large numbers.
• The lake receives water from six rivers: Mantha, Rupangarh, Khari, Khandela, Medtha and Samod.
Additional InformationDevtal Lake
• Devtal lake is a sacred lake atop Mana Pass.
• It is considered very holy since this lake is believed to be the origin of the Mythical Saraswati River.
Pushkar Lake
• Pushkar Sarovar is located in the town of Pushkar near Ajmer city in the Ajmer district of the Rajasthan state of western India.
• It is a sacred lake of the Hindus.
Lonar Lake

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• Also known as Lonar crater.
• It is a notified National Geo-heritage Monument, saline, soda lake, located at Lonar in Buldhana district, Maharashtra.
• It was created by a meteorite collision impact during the Pleistocene Epoch.

Q26. Answer: (a) 40

Given:
27.5% of a number = 11.
Calculation:
According to the question,
Let the unknown number be 'A'
=> 27.5% × A = 11
=> 27.5/100 × A = 11
=> A = (11/27.5) × 100
=> (11/275) × 1000
=> (1/25) × 1000
=> A = 40.
Therefore The unknown number is 40.

Q27. Answer: (c) Intel India

The correct answer is Intel India.
Key PointsIntel India
• Intel Corporation, commonly known as Intel, is an American multinational corporation and technology company headquartered in Santa Clara, California.
• It is the world's largest semiconductor chip manufacturer by revenue.
• It is one of the developer of the x86 series of instruction sets, the instruction sets found in most personal computers.
Additional Information
• Research initiative called ‘Fund for Industrial Research Engagement (FIRE)’ launched by the Science and Engineering Research Board (SERB), a statutory body of Department of Science and Technology (DST), Government of India.
• It will help to promote research in the upcoming critical areas of science and engineering with Public-Private Partnerships.
• It will offer researchers a platform to perform industry-related opportunities in the areas like Artificial Intelligence (AI), Machine Learning (ML), platform systems, circuits & architecture, Internet of Things (IoT), materials & devices, security, and edge to cloud.

Q28. Answer: (c) 36

Explanation:
The positional value table for English alphabet is as given below:
T + O + T + A + L = 20 + 15 + 20 + 1 + 12 = 68
P + E + N = 16 + 5 + 14 = 35
SO, OIL will be written as: O + I + L = 15 + 9 + 12 = 36
Hence, 36 is the correct answer.

Q29. Answer: (d) Both the statements together is needed to answer the Question

The logic followed here is:
Statement I:Rahul was born in the year 1987 and is 5 years younger than Vishal's sister.
• This statement gives the relation between age of Rahul and Vishal's sister.
• As per the data, Rahul is born in 1987.
• Rahul is younger than Vishal's sister. So Vishal's sister is born in 1982.
• Clearly, Vishal's sister > Rahul.
Statement II: Vishal is twice as old as his sister.
• This statement gives the relation between age of Vishal and his sister.
• Clearly, Vishal > Vishal's sister.
We need to determine who is older Rahul or Vishal.
Statement I or Statement II alone does not answer the question.
On Combining Statement I and Statement II : However, on combining both the statements, We get:
Vishal > Vishal's sister > Rahul.

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So Vishal is older than Rahul.

Hence, Both the statements together is needed to answer the Question is the correct answer.

Q30. Answer: (a) 395

The correct answer is 395.

Key Points

• The Constitution of India came into force on 26th January 1950.

• It is the world's longest for a sovereign nation.

• At its enactment, it had 395 articles in 22 parts and 8 schedules.

• At about 145,000 words, it is the second-longest active constitution—after the Constitution of Alabama—in the world.

Additional Information

• Constitution Day is observed on 26th November every year as it is the day when the Constitution was made.

• The Constitution of India is the longest Constitution in the world.

• Now the Constitution of India has 448 articles in 25 parts and 12 schedules and to add to this all 105 amendments.

Q31. Answer: (d) 139

The correct answer is 139.

Key Points

• India has been ranked136 out of 149 countries in the list of UN World Happiness Report 2021.

• The World Happiness Report 2021, issued by the UN Sustainable Development Solutions Network, focuses on the effects of Covid-19 and how people all over the world have fared.

• It ranks the world's 149 countries on "how happy their citizens perceive themselves to be".

Additional Information

• Finland has been ranked as the happiest country in the world.

• The Nordic nation is followed by Iceland, Denmark, Switzerland, The Netherlands, Sweden, Germany and Norway.

• Pakistan is on 105th, Bangladesh on 101st and China on 84th.

• The United States ranks in 19th place for happiness, despite being one of the richest countries in the world.

• People in war-torn Afghanistan are the most unhappy with their lives, followed by Zimbabwe (148), Rwanda (147), Botswana (146) and Lesotho (145).

Q32. Answer: (a) 20 Hz to 20,000 Hz

The correct answer is 20 Hz to 20,000 Hz.

Key Points

• The audible range refers to the range of human hearing.

• When it comes to pitching, the human hearing range begins low at about 20 Hz for someone with normal hearing.

• The highest frequency that can be heard without discomfort is 20,000 Hz.

• While the absolute limits of human hearing are 20-20,000 Hz.

• The audiogram is used by the professional to determine your hearing loss and as a tool for fitting, hearing aids.

Additional Information

• Human infants can actually hear frequencies slightly higher than 20 kHz.

• Some species of bats are sensitive to tones as high as 200 kHz, but their lower limit is around 20 kHz.

• Sounds below 20 Hz are called infrasounds and sounds above 20,000 Hz are called ultrasounds.

• Infrasounds can be perceived by animals like elephants (14 Hz to 12,000 Hz) and ultrasounds can be heard by animals like bats (10,000 Hz to 2000,000 Hz).

Q33. Answer: (c) 14 : 3

The correct answer is 14:3.

Key Points

• The atomic mass of nitrogen is 14.

• The atomic mass of hydrogen is 1.

• So, the mass ratio of N and H in NH_3 = 14 : 3 (N:3H).

Additional Information

• Atomic mass is the quantity of matter contained in an atom of an element.

• It is expressed as a multiple of one-twelfth the mass of the carbon-12 atom.

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• Mass ratio, often called "per cent composition by mass," is the proportion of a particular molecule that consists of each of that molecule's constituent elements.

Q34. Answer: (b) 1.75 km

Given:

Speed, S1 = 2.5 km/h, S2 = 2.5 + 1 km/h = 3.5 km/h

Time Taken, T1 = (x + 6/60) h, T2 = (x - 6/60) h

FORMULA USED:

Distance = Speed × Time.

Calculation:

According to the question,

Let the time taken by the student to reach school at his normal speed be 'x'.

When the student walks at 2.5 km/hr.

Time taken = (x + 6/60) hours.

Distance = 2.5 × (x + 0.1) - (1)

When the student walks at 3.5 km/hr.

He reaches in (x - 6/60) hours.

Distance = 3.5 × (x - 0.1) - (2)

From (1) and (2) we get,

=> 2.5 (x + 0.1) = 3.5 (x - 0.1)

=> 2.5x + 0.25 = 3.5x - 0.35

=> 0.25 + 0.35 = 3.5x - 2.5x

=> x = 0.60

From (1) we get

=> Distance = 2.5x (0.6 + 0.1) = 1.75 km

Therefore The distance from school to his house is 1.75 km.

Q35. Answer: (b) 126

GIVEN:

Height of a solid right circular cylinder = 9 cm

The total surface area of a solid right circular cylinder = 704 cm^2

The volume of a solid right circular cylinder = 11k cm^3

FORMULA USED:

Total surface area = $2\pi r(h + r)$

Volume = $\pi r^2 h$

CALCULATION:

Total surface area = 2 π r(h + r) = 2 × 22/7 × r × (9 + r) = 704, where value of (π = 22/7)

=> r (9 + r) =112

=> r^2 + 9r =112

=> r^2 + 9r - 112 = 0

=> r^2 + 16r -7r - 112 =0

=> r (r + 16) - 7(r + 16) = 0

=> r = 7 or r = -16, since the value of radius cannot be negative .Hence the value of

=> r = 7 cm.

=> Now, According to the given question,

=> Volume = 11 k

=> but, we also know that volume = πr2h

Hence, 11k = 22/7 × 49 × 9

=> k = 126

Hence, the value of k = 126

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Q36. Answer: (b) 64

Given:

259.99 ÷ 24.99 × 35.01 - 29.98 × 9.96 = ?

Concept used:

BODMAS rule

Calculation:

[(260 ÷ 25) × 35] - (30 × 10)

=> [10.4 × 35] - (300)

=> 364 - 300 = 64.

Therefore The most approximate value of the given equation is 64.

Q37. Answer: (a) Wednesday

Given : 21st March 2021 was a Sunday.

• Total number of days in a normal year = 365

• Number of odd days in a normal year = 365/7 = 1

• Total number of days in a leap year = 366

• Number of odd days in a leap year = 366/7 = 2

• Total number of days from 21st March 2021 to 12th January 2022 = 10(March) + 30(April) + 31(May) + 30(June) + 31(July) + 31(August) + 30(September) + 31(October) + 30(November) + 31(December) + 12(January) = 297

• Since, it was Sunday on 21st March 2021, every 7th day from 21st March will be a Sunday.

• Thus, no. of odd days from 21st March 2021 to 12th January 2022 = 297/7 = 3

• Now, 21st March 2021 + 3 odd days = 12th January 2022 (Wednesday)

• Thus, 12th January 2022 will be Wednesday.

Hence, "option 1" is the correct answer.

Q38. Answer: (d) 5

The correct answer is 5.

Key Points

• According to article 243E, every Panchayat, unless sooner dissolved under any law for the time being in force, shall continue for five years from the date appointed for its first meeting and no longer.

• An election to constitute a Panchayat shall be completed

• before the expiry of its duration specified.

• before the expiration of a period of six months from the date of its dissolution.

Additional Information

• According to article 243E:

• No amendment of any law for the time being in force shall have the effect of causing dissolution of a Panchayat at any level.

• A Panchayat constituted upon the dissolution of a Panchayat before the expiration of its duration shall continue only for the remainder of the period.

• Provided that where the remainder of the period for which the dissolved Panchayat would have continued is less than six months, it shall not be necessary to hold any election under this clause for constituting the Panchayat for such period.

Q39. Answer: (d) Pamela

Given:

Number of friends=5, namely Leo, Casey, Pamela, Alisha and Andrew.

Number of fruit=5, Apple, Mango, Strawberry, Pear and Apricot.

Number of profession= 5, namely dancer, actor, singer, doctor and professor.

Explanation:

• The one who likes Pear is a professor.

• Andrew likes Pear.

Name of the person	Fruit	Profession
Andrew	Pear	Professor

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• Leo likes Apple but is neither a dancer nor a doctor.
• The one who is a singer likes Apricot.
• Casey is a singer.

Name of the person	Fruit	Profession
Andrew	Pear	Professor
Leo	Apple	Dancer, Doctor
Casey	Apricot	Singer

• The one who likes Mango is a singer or a doctor.
• Since, Singer likes Apricot, Doctor likes Mangoes.

Name of the person	Fruit	Profession
Andrew	Pear	Professor
Leo	Apple	Dancer, Doctor
Casey	Apricot	Singer
	Mango	Doctor

• Alisha likes Strawberry.

Name of the person	Fruit	Profession
Andrew	Pear	Professor
Leo	Apple	Dancer, Doctor
Casey	Apricot	Singer
	Mango	Doctor
Alisha	Strawberry	

• The final arrangement will be as follows:

Name of the person	Fruit	Profession
Andrew	Pear	Professor
Leo	Apple	Actor
Casey	Apricot	Singer
Pamela	Mango	Doctor
Alisha	Strawberry	Dancer

• Pamela is doctor by profession.

Hence, Pamela is the correct answer.

Q40. Answer: (c) F

Given:

• Number of horses= 6, namely A, B, C, D, E, F.
• All are facing North direction.

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Explanation:

• Horse D is standing at fourth to the left of horse B.

• Horse D is not standing at any of the extreme ends.

• Horse B is standing to the immediate right of horse E.

• Horse C is standing between horse A and horse E as its immediate neighbours.

• Horse F is not standing at the extreme right end.

• So, horse F is standing at the extreme left end.

Hence, F is the correct answer.

Q41. Answer: (a) Sikkim

The correct answer is Sikkim.

Key PointsDance forms of Sikkim

• Folk songs and dances are an inveterate part of the Sikkimese culture.

• Most of the tribal dances depict the harvest season and they are performed for prosperity.

• The dances of Sikkim are accompanied by traditional musical instruments, and chanting, and the dancers carry bright costumes and traditional masks.

• Some of the most famous dance forms are Rechungma, Gha To Kito, Chi Rmu, Be Yu Mista, Tashi Zaldha, Enchey Chaam, Lu Khangthamo, Gnungmala Gnunghey, and Kagyed Dance.

Additional InformationDance forms of Manipur, Andaman and Nicobar and Goa

• Manipur has many styles of dance ranging from folk to classical and modern.

• The primary forms of Manipuri are the Raas Leela, a classical Indian dance form, Jagoi, Cholom and Thang-Ta.

• Nicobari dance is the traditional dance of Andaman and Nicobar.

• It can be seen during the Ossuary Feast, commonly known as the Pig Festival.

• Dhalo is a popular ritual folk dance form Goa, India. The dance is performed by women and serves as a prayer of protection for their households.

Q42. Answer: (d) It is a process of removing controls systems in order to encourage economic development.

The correct answer is It is a process of removing control systems in order to encourage economic development.

Key PointsLiberalisation:

• Liberalisation is the process or means of the elimination of control of the state over economic activities.

• It provides greater autonomy to the business enterprises in decision-making and eliminates government interference.

• Liberalisation was begun to put an end to limitations, and open multiple areas of the economy.

• For developing countries, liberalisation has opened economic borders to foreign companies and investments.

Additional Information

• The process by which an economy is transformed from agriculture to manufacturing of goods is called industrialisation.

• Industrialisation leads to urbanisation.

• Regulatory policy focuses on boosting of government laws and restrictions in order to encourage greater participation by public entities.

• In a monopoly market, the seller faces no competition, as he is the sole seller of goods with no close substitute.

Q43. Answer: (d) Raichur

The correct answer is Raichur.

Key Points

• Maski derives its name from Mahasangha or Masangi.

• Maski is an archaeological site in the Raichur district of the state of Karnataka, India.

• It lies on the bank of the Maski river which is a tributary of the Tungabhadra.

• The site came into prominence with the discovery of a minor rock edict of Emperor Ashoka by C. Beadon in 1915.

Additional Information

• A total of 9 have been found in Karnataka till now.

• Among the 9 edicts found in Karnataka, Maski occupies a significant place.

• It was the first edict wherein the Emperor was referred to by his name i.e Ashoka apart from his epithets such as Devanam Piya and Piyadasi.

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• This edict was important to conclude that many edicts found earlier in the Indian sub-continent in the name of Devanam Piya and Piyadasi all belonged to Emperor Ashoka.

Q44. Answer: (c) 18√3 cm²

Given:

Side of hexagon (a) = 2√3

Formula used:

=> Area of the hexagon = (3√3) x a².

2

Calculation:

Area of the hexagon

=> 3√3 x (2√3)²

2

=> 3√3 x (4x3) = 3√3 x (12)

2 2

=> 3√3 x 6 = 18√3 cm².

Therefore The area of the given hexagon is 18√3 cm2.

Q45. Answer: (a) 117

Given : 16, 29, 46, 65, 88, ?

The logic followed here is:

The values are obtained by adding prime numbers to the previous value.

Hence, 117 is the correct answer.

Additional Information Prime number table from 1 to 100:

Q46. Answer: (b) Aurangzeb

The correct answer is Aurangzeb.

Key Points

• Badshahi Mosque

• The Badshahi Mosque was constructed by the Mughal emperor Aurangzeb between 1671 and 1673.

• It was the largest mosque in the world from 1673 to 1986.

• The mosque is an important example of Mughal architecture.

• Its exterior is decorated with carved red sandstone with marble inlay.

• It remains the largest mosque of the Mughal era and is the third-largest mosque in Pakistan.

Additional Information

• Sher Shah Suri built the Grand Trunk Road or the GT Road.

• It is one of the longest and oldest roads in Asia.

• It is roughly 3710km long and connects Central Asia to the Indian Subcontinent.

• Humayun has built several architectural structures in Gwalior, Agra, and Delhi.

• Humayun also built some beautiful religious buildings in the city of Din-Panah and the Gates of the Din Panah City, called Talaqi Darwaza, Bara Darwaza, Humayun Darwaza, and Sher Mandal.

• Ittumish completed the construction of the Qutb Minar, which had been started by Qutb al-din Aibak.

Q47. Answer: (c) 855

Given:

a + b = 15,

a2 + b² = 113

Concept used:

(a + b)² = a² + b² + 2ab

a³ + b³ = (a + b) (a² + b² - ab)

Calculations:

According to the question,

(a + b)2 = a2 + b2 + 2ab

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=> $(15)^2 = 113 + 2ab$

=> 225 - 113 = 2ab

=> 112 = 2ab

=> ab = 56

Now for the value of a3 + b3,

a3 + b3 = (a + b) (a2 + b2 - ab)

=> a3 + b3 = (15) (113 - 56)

=> a3 + b3 = 15 × 57

=> a3 + b3 = 855

Therefore The value of a3 + b3 is 855.

Q48. Answer: (c) total revenue

The correct answer is total revenue.

Key Points

Total Revenue:

• While a firm in a perfectly competitive market does not influence its price, it does determine the output it will produce.

• In selecting the quantity of that output, one important consideration is the revenue the firm will gain by producing it.

• A firm's total revenue is found by multiplying its output by the price at which it sells that output.

• Total revenue (TR) is the total receipts a seller can obtain from selling goods or services to buyers.

• It can be written as P × Q, which is the price of the goods multiplied by the firm's output.

• Total revenue = TR = P × Q

Additional Information

Average Revenue	**It is referred to as the revenue that is earned per unit of output. In other words, it is the revenue that is obtained by the seller on selling each unit of the commodity. The average revenue of a business is obtained by dividing the total revenue by the total output.**
Marginal revenue	It is the increase in revenue that results from the sale of one additional unit of output. While marginal revenue can remain constant over a certain level of output, it follows from the law of diminishing returns and will eventually slow down as the output level increases.

Q49. Answer: (a) Both the statements, I and II, are effects of independent causes.

Concept: Cause and effect.

Given:

Statements:

I. Students called off their protest they held against insufficient employment opportunities.

II. Students went on protest anticipating inability of government to provide employment.

Explanation:

I. Students called off their protest they held against insufficient employment opportunities.

• The students held a protest due to insufficient employment opportunities.

• The protest was called off by the students.

II. Students went on protest anticipating inability of government to provide employment.

• The students started a protest.

• The reason for starting the protest was inability of government to provide employment.

Hence, Both the statements, I and II, are effects of independent causes is the correct answer.

Q50. Answer: (a) 9

Given:

8000 < x < 8500

Divisors = 12, 14, 16, 35, 84

Remainders = 4, 6, 8, 27, 76

Concept used:
N = (LCM of divisors)K - Difference
Calculations:
In this, if you subtract each remainder from its corresponding divisor you will get,
For ex.
=> 12 - 4 = 14 - 6 = 16 - 8 = and so on = 8
The difference will be constant always.
LCM of (12, 14, 16, 35, 84) = 1680
=> N = (LCM of divisors)K - Difference
Here the only possible value of k is 5
=> x = (1680) × 5 - 8
=> x = 8400 - 8 = 8392
Therefore The tens digit in x is 9.

Q51. Answer: (a) Neither conclusion I nor II is true

Given: Z > H ≥ Y > R < D ≥ F > X
The logic followed here is:
There is no relationship between Z and X, F and H. This is obtained from given inequality.
Conclusion I: Z ≥ X → False (as Z > H ≥ Y > R < D ≥ F > X, no clear relation between Z and X can be formed)
Conclusion II: F > H → False (as H ≥ Y > R < D ≥ F, no clear relation between F and H can be formed)
Hence, Neither conclusion I nor II is true is the correct answer.

Q52. Answer: (a) 434

Given:
11, 19, 27, 35, 43, ...
Concept Used:
$a_n = a + (n – 1) d$
Calculation:
=> First term, a = 11 and Common Difference, d = 19 – 11 = 8
=> Checking for each term, the n value should be integer.
=> 434 = 11 + (n – 1) × 8
=> n – 1 = 423/8 = 52.875
=> This value will not be possible in this series, as number of terms can't be in decimal.
=> 107 = 11 + (n – 1) × 8
=> n – 1 = 96/8=12
=> n = 12 + 1 = 13
=> This is a 13th term in this series.
=> 307 = 11 + (n – 1) × 8
=> n – 1 = 296/8=37
=> n = 37 + 1 = 38
=> This is a 38th term in this series.
=> 195 = 11 + (n – 1) × 8
=> n – 1 = 184/8=23
=> n = 23 + 1 = 24
=> This is the 24th term in this series.
Hence, the number which cannot be possible in this series is 434

Q53. Answer: (c) Q

Given:
P and Q like to drink coffee and tea.
R and S like coffee and energy drink.
Q and S like tea and cold drink.
R, S and T like energy drink and ice-tea.

Calculations:

	Tea	Coffee	Energy Drink	Cold Drink	Ice tea
P	x	x			
Q	x	x		x	
R			x		x
S	x		x	x	x
T			x		x

In this table X denotes Who likes a drink

Only Q likes only three drinks, viz., coffee, tea, and cold drink - there are 3 X for Q

Hence correct answer is Q

Q54. Answer: (b) Only conclusion II follows.

Explanation:

Statements:

a) Some scarfs are shawls.

b) Some shawls are mufflers.

The least possible venn diagram will be as follows:

We will check the conclusions.

• Conclusion I. Some scarfs are mufflers. → False (As there is no relation between scarfs and mufflers. So we cannot conclude it with surity.)

• Conclusion II. Some mufflers are shawls. →True (As Some A are B and Some B are A follows and Some Shawls are Mufflers is given in statement).

**Hence, Only conclusion II follows is the correct answer.

Q55. Answer: (c) Fifth Five-Year Plan

The correct answer is Fifth Five-Year Plan.

• The Fifth Five Year Plan India was chalked out for the period spanning 1974 to1979 with the objectives of increasing the employment level, reducing poverty, and attaining self-reliance.

Key Points

• The Fifth Five Year Plan India was designed with emphasis on certain objectives, enlisted as under:

• to reduce social, regional, and economic disparities for developmental planning

• to enhance agricultural productivity

• to initiate land reforms

• to check rural and urban unemployment

• to emphasize on household industries like carpet-weaving, handlooms, sericulture, and handicrafts

• to encourage self-employment through a well integrated local planning

• to encourage import substitution in areas like industrial machinery, chemicals, paper, iron and steel and non-ferrous metals

• to capture the markets with locational advantages

• to initiate appropriate use of fiscal, credit and production support policies in the cottage industry sector

• to develop labor intensive technological improvements

Additional Information

• The Fifth Five-Year Plan of India (1974–1979) was formulated by the Indira Gandhi government.

• It focused on agriculture, poverty alleviation, and employment generation.

• The plan also aimed to reduce social and economic inequality between different sections of society.

Q56. Answer: (d) 10098

Given:

The number is completely divisible by both 9 and 11.

Concept used:

The divisibility by 11 rule states that if the difference of the sum of the digits at odd places and even places of the number is 0 or divisible by 11, then the given number is also

divisible by 11. For calculating the difference, we always subtract the smaller value from the larger value.

The divisibility rule of 9 states that if the sum of digits of any number is divisible by 9, then the number is also divisible by 9.

Calculation:

According to the concept,

Now we check if the numbers are divisible by 9;

=> 12345 = 1 + 2 + 3 + 4 + 5 = 15 [not divisible by 9]

=> 277218 = 2 + 7 + 7 + 2 + 1 + 8 = 27 [divisible by 9]

=> 181998 = 1 + 8 + 1 + 9 + 9 + 8 = 36 [divisible by 9]

=> 10098 = 1 + 0 + 0 + 9 + 8 = 18 [divisible by 9]

Now we check if the numbers are divisible by 11;

=> 12345 = (odd places) - (even places) = 3 [not divisible by 11]

Odd places = 1 + 3 + 5 = 9

Even places = 2 + 4 = 6

=> 277218 = (odd places) - (even places) = 7 [not divisible by 11]

Odd places = 2 + 7 + 1 = 10

Even places = 7 + 2 + 8 = 17

=> 181998 = (odd places) - (even places) = 14 [not divisible by 11]

Odd places = 1 + 1 + 9 = 11

Even places = 8 + 9 + 8 = 25

=> 10098 = (odd places) - (even places) = 0 [divisible by 11]

Odd places = 1 + 0 + 8 = 9

Even places = 0 + 9 = 9

Therefore The number divisible by both 9 and 11 is 10098.

Q57. Answer: (a) 4

The correct answer is 4.

Key Points

• The RBI has 4 deputy governor - 2 are appointed from outside while the remaining 2 are promoted from within. The other 2 appointed from outside, one is commercial banker and the other is economist.

• The present 4 deputy governor of RBI are Shri Mahesh Kumar Jain, Dr. Michael Debabrata Patra, Shri M. Rajeshwar Rao, Shri T. Rabi Sankar.

Additional Information

• The Central Office of the Reserve Bank was initially established in Kolkata but was permanently moved to Mumbai in 1937.

• Shaktikanta Das is the twenty-fifth governor of the Reserve Bank of India from 12 December 2018.

Q58. Answer: (c) Arakan Yoma

The correct answer is Arakan Yoma.

Key Points

• The Andaman and Nicobar islands (a&n) are thought to be the emergent peaks of a submerged mountain range related to the Arakan Yoma range of mainland Burma.

• The islands include steep hills, and generally poor soil with little water holding capacity.

• Arakan yoma is the extension of the himalayas located in Myanmar.

• The Arakan Mountains are also known as the Rakhine Mountains.

• These are a mountain range in western Myanmar, between the coast of Rakhine State and the Central Myanmar Basin, in which the Irrawaddy River flows.

Additional Information

• Port Blair is the capital of the Union Territory of Andaman & Nicobar Islands.

• Lt. Governors of Andaman and Nicobar is Admiral D K Joshi.

Q59. Answer: (a) 7.5

Given:

20 people can do a piece of work in 12.5 days

Calculations:

The total amount of work done by 20 people = 20 × 12.5 = 250 units

Amount of work done by 20 people in 8 days = 20 × 8 = 160 units

Remaining work = 250 units - 160 units = 90 units

Remaining worker = 20 - 8 = 12

Time required to complete the remaining work = 90/12 = 7.5 days

Therefore The remaining work will be completed by 12 people in 7.5 days.

Q60. Answer: (d) Rs. 8,400

Given:

Amount = Rs. 10164

Rate of interest (R) = 10% per annum

Time Period (T) = 2 years

Formula used:

Amount = P (1 + R/100)^T

Calculation:

According to the question,

$10164 = P (1 + 10/100)^2$

$\Rightarrow 10164 = P (11/10)^2$

$\Rightarrow 10164 = P (121/100)$

$\Rightarrow 10164/(121/100) = P$

$\Rightarrow 84 \times 100 = P$

$\Rightarrow P = Rs. 8400.$

Therefore The principle amount invested was Rs. 8400.

Q61. Answer: (c) 1210121

Given:

The number is divisible by 11.

Concept used:

The divisibility by 11 rule states that "if the difference of the sum of the digits at odd places and even places of the number is 0 or divisible by 11, then the given number is also divisible by 11".

For calculating the difference, we always subtract the smaller value from the larger value.

Calculation:

According to the concept

Now we check if the numbers are divisible by 11;

$\Rightarrow$ 1120121 = (odd places) - (even places) = 2 [not divisible by 11]

Odd places = 1 + 2 + 1 + 1 = 5

Even places = 1 + 0 + 1 = 3

$\Rightarrow$ 1201121 = (odd places) - (even places) = 2 [not divisible by 11]

Odd places = 1 + 0 + 1 + 1 = 3

Even places = 2 + 1 + 2 = 5

$\Rightarrow$ 1210121 = (odd places) - (even places) = 0 [divisible by 11]

Odd places = 1 + 1 + 1 + 1 = 4

Even places = 2 + 0 + 2 = 4

$\Rightarrow$ 1210211 = (odd places) - (even places) = 3 [not divisible by 11]

Odd places = 1 + 1 + 2 + 1 = 5

Even places = 1 + 0 + 1 = 2

Therefore The number divisible by 11 is 1210121.

Q62. Answer: (a) 4200 m

Given:

Perimeter of the rectangle = 21000 m

Length : Breadth = 7 : 3

Formula used:

Perimeter of a rectangle = 2 × (l + b)

Calculations:

Let the numbers be 7x and 3x

According to the question,

2 × (l + b) = 21000 m

=> 2 × (7x + 3x) = 21000 m

=> 2 × (10x) = 21000 m

=> 20x = 21000 m

=> x = 21000/20

=> x = 1050 m

=> Length = 7 × 1050 = 7350 m

=> Breadth = 3 × 1050 = 3150 m

Now the difference in length and breadth,

=> L - B = 7350 - 3150 = 4200 m.

Therefore The difference in length and breadth is 4200 m.

Q63. Answer: (b) 5

The logic followed here is:

• Vowels are a, e. i, o, u.

• Consonants are all the letters in English alphabet except vowels.

In the given series, consonants that are immediately followed by a vowel are:

Series : (Left) A T G H @ 7 D O G K I 7 # P E 4 1 D & G O H 4 @ 3 1 K M B U C D (Right)

Thus, there are five consonants that are immediately followed by a vowel, namely DO, KI, PE, GO, BU.

Hence, 5 is the correct answer.

Q64. Answer: (d) Himachal Pradesh

The correct answer is Himachal Pradesh.

Key Points

• Rohtang Pass is a high mountain pass on the eastern end of the Pir Panjal Range of the Himalayas around 51 km from Manali in the Indian state of Himachal Pradesh

• It connects the Kullu Valley with the Lahaul and Spiti Valleys of Himachal Pradesh, India.

• The name Rohtang means 'ground of corpses' or 'pile of dead bodies' due to the number of people who lost their lives trying to cross it.

Additional Information

• Himachal Pradesh has 2 capitals : Shimla (summer) and Dharamshala (winter)

• Chief Minister of the state of Himachal Pradesh is Jai Ram Thakur

Q65. Answer: (b) North America

The correct answer is North America.

• the Union Pacific Railroad operates in North America.

Key Points

• Thomas Clark Durant, the namesake of the city of Durant, Iowa, the first rails were laid in Omaha.

• The two lines were joined at Promontory Summit, Utah, 53 miles (85 km) west of Ogden on May 10, 1869, hence creating the first transcontinental railroad in North America.

• President Abraham Lincoln had approved the act.

Additional Information

There are seven continents: Asia, Africa, North America, South America, Antarctica, Europe, and Australia (listed from largest to smallest in size).

Q66. Answer: (b) 10

Given : ÷ means addition, × means subtraction, + means multiplication, and - means division.

BODMAS Rule:

After replacing mathematical signs, the equation becomes:

=> 30 ÷ 10 × 4 - 6 + 4

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=> 3 × 4 - 6 + 4

=> 12 - 6 + 4

=> 16 - 6

=> 10

Hence, "option 2" is the correct answer.

Q67. Answer: (a) 10

GIVEN:

Number of toffees of A = 8

The number of toffees of B = 1 + 50% of the total number of toffees.

CONCEPT USED:

50% of any number = number /2.

CALCULATION:

Let the total number of toffees be X

Number of toffees of B = 1 + X/2

Total number of toffees = Number of toffees of A + Number of toffees of B

=> X = 8 + (1+ X/2)

=> X/2 = 9

=> X = 18

=> Hence, Total number of toffees =18

=> Number of toffees of B = (Total number of toffees - Number of toffees of A) = (18 - 8) = 10.

Therefore The total number of toffee B has 10

Q68. Answer: (c) √3 over 4

GIVEN:

α = 30 degrees

FORMULA USED:

Sin 30 degree = 1/2

Cos 30 degree = √3/2

CALCULATION:

Value of sin α × cos α =sin 30 × cos30 =1/2× √3 /2 =√3/4

Hence the value of sinα cosα = √3/4.

Hence, the value is √3/4.

Q69. Answer: (d) G6

The correct answer is G6.

Key Points

• MS Excel is in tabular format consisting of rows and columns.

• Row numbers ranges from 1 to 1048576; in total 1048576 rows, and Columns ranges from A to XFD; in total 16384 columns. Row runs horizontally while Column runs vertically.

• Each row is identified by row number, which runs vertically at the left side of the sheet.

• Each column is identified by column header, which runs horizontally at the top of the sheet.

Additional Information

• Early Microsoft employee Charles Simonyi is the man behind some of the company's most successful software, including Word and Excel

• Excel is a popular spreadsheet system, which organizes data in columns and rows that can be manipulated through formulas that allow the software to perform mathematical functions on the data.

Q70. Answer: (a) 243G

The correct answer is 243G.

Key Points

• Article 243G of Indian constitution is related with powers, authority and responsibilities of Panchayats

• Subject to the provisions of this Constitution, the Legislature of a State may, by law, endow the Panchayats with such powers and authority as may be necessary to enable them to function as institutions of self-government and such law may contain

provisions for the devolution of powers and responsibilities upon Panchayats at the appropriate level, subject to such conditions as may be specified therein, with respect to—

• the preparation of plans for economic development and social justice;

• the implementation of schemes for economic development and social justice as may be entrusted to them including those in relation to the matters listed in the Eleventh Schedule.

Additional Information

• Article 243F of Indian Constitution is related to disqualification for membership.

• Article 243E of Indian Constitution is related to Duration of Panchayat.

• Article 243H of Indian Constitution is related to authorize a Panchayat to levy, collect and appropriate such taxes, duties, tolls and fees in accordance with such procedure and subject to such limits.

Q71. Answer: (a) QGDVX

The logic followed here is :

'MANGO' is written as 'NCQKT'.

'APPLE' is written as 'BRSPJ'.

To find: code for 'PEARS'.

'PEARS' is written as QGDVX.

Hence, QGDVX is the correct answer.

Q72. Answer: (a) B, D, E, F, G

Books : A, B, C, D, E, F, G and H.

Conditions applied :

*If A is chosen, F cannot be chosen.

*If B is chosen, E must also be chosen.

*If D is chosen, G must also be chosen.

Lets check each option :

1) B, D, E, F, G

This is the perfect combination of books because it satisfies all three conditions.

2) B, C, D, F, G

This cannot be the combination because it doesn't satisfies the second condition (If B is chosen, E must also be chosen)

3) A, B, D, E, F

This cannot be the combination because it neither satisfies the first condition nor the last condition (If A is chosen, F cannot be chosen and If D is chosen, G must also be chosen)

4) A, B, C, D, G

This cannot be the combination because it doesn't satisfies the second condition (If B is chosen, E must also be chosen)

Hence, "option 1" is the correct answer.

Q73. Answer: (a) 4

Given:

• Number of floors = 7

• Number of people = 6, namely A, B, C, D, E, and F.

• One of the floors in the building is vacant.

• The ground floor is numbered floor number 1 and so on.

Explanation:

• B lives on the floor no.6

Floor	Name of person
7	
6	B
5	
4	
3	

2	
1	

• No floor below the floor no. 3 is vacant.
• No odd numbered floor is vacant.

Floor	Name of person
7	
6	B
5	
4	Vacant
3	
2	
1	

• Only B lives between the floors of A and F.
• Only two people live between C and F.
• C lives on one of the floors below F.

Floor	Name of person
7	A
6	B
5	F
4	Vacant
3	
2	C
1	

• Only one person lives between E and D.
• More than one person lives between D and B.

Floor	Name of person
7	A
6	B
5	F
4	Vacant
3	E
2	C
1	D

So, floor 4 is vacant.
Hence, 4 is the correct answer.

Q74. Answer: (d) Eklavya

Given:
Number of friends = 5, namely Amit, Bablu, Chirag, Deepak and Eklavya.
Number of occupations = 5, namely Advocate, Boxer, Coach, Doctor and Engineer.
Explanation:
• All are sitting around a circular table.

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• All are facing the centre.
• Amit sits second to the right of Chirag, who is a Coach.

Bablu is a Boxer. The Boxer will never sit immediately next to the Coach.
Deepak is a Doctor. The Doctor and Boxer are immediate neighbours of each other.

The final arrangement is:
Eklavya sits to immediate right of Chirag.
Hence, Eklavya is the correct answer.

Q75. Answer: (b) Ashoka

The correct answer is Ashoka.
Key Points
• Ashoka
• He was the son of Vindusara who invaded Kalinga in 261 B.C. and succeeded in occupying Kalinga.
• The Kalinga War was of colossal nature in which as many as 1,00,000 were killed and 1,50,000 were taken captives while as many as that number died as an aftermath of the war.
• Ashoka was deeply moved by the terrible bloodshed caused by this war and was converted to Buddhism.
• Kalinga became one of the administrative provisions in the empire of Magadha with headquarters of a Kumara (Viceroy) located at Tosali.
Additional Information
• Brihadratha
• He was the last ruler of the Mauryan Empire.
• He ruled from 187 to 185 BCE, when he was killed by his general, Pushyamitra Shunga, who went on to establish the Shunga Empire.
• Bindusara
• Bindusara also Amitraghāta or Amitrakhāda or Amitrochates was the second Mauryan emperor of India.
• He was the son of the dynasty's founder Chandragupta and the father of its most famous ruler Ashoka.
• Chandragupta Maurya
• He was a ruler of Iron Age South Asia who expanded a geographically-extensive kingdom based in Magadha and founded the Maurya dynasty.
• He reigned from 321 BCE to 293 BCE.

Q76. Answer: (c) -3

Given:
=>(48 ÷ 72 × 3) - [15 ÷ 8 × (40 - 32) - 10]
Concept Used:
Calculation:
=> [(48 ÷ 72) × 3] - [{(15 ÷ 8) × (40 - 32)} - 10]
=> [(0.66) × 3] - [{(1.875) × (8)}- 10]
=> [1.98] - {15 - 10}
=> 1.98 - 5
=> 3.02 or ~3
Therefore The value of (48 ÷ 72 × 3) - [15 ÷ 8 × (40 - 32) - 10] is 3.02 ~3.

Q77. Answer: (b) 4,425

Given:
Selling Price (SP) = Rs 4125
Gain% = 10%
Formula used:
SP = Cost Price (CP) + gain
Calculation:
Let CP be Rs a

4125 = a + (10/100) × a
=> 4125 = a + a/10
=> 4125 = (10a + a)/10
=> 4125 = 11a/10
=> 11a = 41250
=> a = 41250/11
Therefore CP = Rs. 3750
Now the selling price with 18% gain:
SP = CP + gain
=> 3750 + 18% of 3750
=> 3750 + (18 × 3750)/100
=> 3750 + 675 = Rs. 4425.
Therefore The cost price of the item is Rs.3750 and the selling price with 18% gain is Rs. 4425.

Q78. Answer: (d) 48

Given:
Boys : Girls = 2 : 1
Average weight of boys = 50 kg
Average weight of girls = 44 kg
Concept used:
Average value (A) = (Sum of all the values)/(Total no. of values)
Calculation:
Let the no. of boys be 'a' and no. of girls be 'b'.
According to the question,
=> a/b = 2/1
=> a = 2b
Total no. of students = Boys + girls = a + b
=> 60 = 2b + b
=> 3b = 60
=> b = 60/3 = 20
Number of girls is 20 and that of boys is 40.
Now Average weight of the students in the group
=> A = [(40 × 50) + (20 × 44)]/60
=> A = [(2000) + (880)]/60
=> A = 2880/60 = 48 kg
Therefore Average weight of the students in group is 48 kg.

Q79. Answer: (c) 6

GIVEN:
No. of white beads Kiran has = 24
No. of black beads Resham has = 18
Each row contains equal no. of beads.
Each row contains either only white or black bead
CONCEPT USED:
Highest Common Factor (H. C. F)
CALCULATION :
24 = 2 × 3 × 4 × 1
18 = 2 × 3 × 3 × 1
We have four possibilities
=> 1 bead in each row
=> 2 beads in each row
=> 3 beads in each row

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=> 6 beads in each row

=> In all other cases, rows will get more than one colour of beads.

=> Hence, the greatest number of beads that can be arranged in a row is 6.

Q80. Answer: (a) 1^(st)of March 1947

The correct answer is 1st of March 1947.

Key Points

• Article 6

• Notwithstanding anything in articles 5 and 6, a person who has after the first day of March, 1947, migrated from the territory of India to the territory now included in Pakistan shall not be deemed to be a citizen of India:

• Provided that nothing in this article shall apply to a person who, after having so migrated to the territory now included in Pakistan, has returned to the territory of India under a permit for resettlement or permanent return issued by or under the authority of any law and every such person shall for the purposes of clause (b) of article 6 be deemed to have migrated to the territory of India after the nineteenth day of July, 1948.

Additional Information

• The Constitution of India is the supreme law of India.

• The document lays down the framework that demarcates fundamental political code, structure, procedures, powers, and duties of government institutions and sets out fundamental rights, directive principles, and the duties of citizens

• The Republic is governed in terms of the Constitution of India which was adopted by the Constituent Assembly on 26th November, 1949 and came into force on 26th January, 1950.

• Dr. Bhimrao Ramji Ambedkar is known as the father of the Indian Constitution.

Q81. Answer: (c) 54

Given :

Speed (S2) = 3/5 of usual speed (S1)

Distance (D1) = 42 km

Time (T1) = 35 mins = 35/60 hour

Formula used :

Speed = Distance/Time

Calculations :

Let the usual speed be 'x'

=> 3x/5 = 42/(35/60)

=> x = (42×60×5)/(3×35)

=> x = 12600/105

=> x = 120 km/h

Now the distance travelled by her at usual speed:

=> D2 = S1 x T2

=> D2 = 120× 27/60

=> D2 = 2 x 27 = 54 km.

Therefore The total distance Simran will cover in 27 minutes at her usual speed is 54 km.

Q82. Answer: (c) 6 years

Given,

Principle (P) = Rs.14500

Rate of interest (R) = 9% per annum

Time period (T) =?

Simple interest (S.I.) = Rs.7830

Formula used:

Simple Interest = (P × R × T)/100

Calculation:

7830 = (14500 × 9 × T)/100

=> 7830 × 100 = (14500 × 9 × T)

=> T = (7830 × 100)/(14500 × 9)

=> T = 783000/130500

=> T = 6 years.

Therefore The Time Period of the investment is 6 years.

Q83. Answer: (b) Rome

The correct answer is Rome.

Key Points

• The 2021 G20 Rome summit was the sixteenth meeting of the Group of Twenty (G20), which was held in Rome, the capital city of Italy, on 30–31 October 2021.

• Landed in Rome to require part within the @g20org Summit, a vital forum to deliberate on key global issues

• Modi said he is visiting Rome and therefore the Vatican City from October 29-31 at the invitation of Italian Prime Minister Mario Draghi, following which he will jaunt Glasgow, the UK, from November 1-2 at the invitation of British Prime Minister Boris Johnson.

• The G20 leaders also reaffirmed their commitment to the Rome Declaration, adopted at the Global Health Summit in May.

Additional Information

• The 17th G20 Heads of State and Government Summit will take place on 15-16 November 2022 in Bali.

• The participants are leaders from 19 countries and also the European Union (EU).

• The 19 countries are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Republic of Korea, Republic of the African nation, and Russia.

• Asian nations, Turkey, UK, U.S of America, additionally, leaders of invited guest countries and representatives of invited guest international organizations participate in the summit together with leaders from the G20 members.

Q84. Answer: (b) Rs. 420

Given:

Principle (P) = Rs. 2000,

Interest Rate (R) = 10% per annum,

Time period (T) = 2 years

Formula used:

=> Amount (A) = P (1 + R/100)^T

=> Compound Interest (C.I.) = A − P

Calculation:

According to the question,

$A = 2000 \times (1 + 10/100)^2$

$\Rightarrow A = 2000 \times (11/10)^2$

=> A = Rs. 2,420.

Therefore C.I. = A − P

=> Rs. 2,420 − Rs. 2,000

=> Rs. 420.

Therefore The compound interest on Rs. 2000 at 10% p.a. for 2 years, compounded annually, is Rs. 420.

Q85. Answer: (a) Nizamuddin Basti Project

The correct answer is Nizamuddin Basti Project.

Key Points

• BANGKOK, 1 December 2021 – The holistic urban revitalization of the historic Nizamuddin Basti community in New Delhi, India has received the Award of Excellence during this year's UNESCO Asia-Pacific Awards for Cultural Heritage Conservation.

• Ms Duong Bich Hanh, Chief of Culture Unit at UNESCO Bangkok, remarked, “The diversity of heritage typologies and countries where the winning projects come from are truly remarkabl".

• Award of Excellence

• Nizamuddin Basti, New Delhi, India.

Additional Information

• After the Ramappa Temple, Telangana might need another entry on the list of UNESCO World Heritage sites within the style of the historic Qutb Shahi Tombs

• “The premises house a complete of 80 monuments, including 40 mausoleums, 23 mosques, seven baolis (step-wells), a hamam, pavilions, tanks, wells, garden structures and enclosure walls.

• Located within the Phisal Banda suburb of Santosh Nagar, Paigah Tombs are the ultimate resting place of erstwhile Hyderabad

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State’s nobility -- the Paigahs.

Q86. Answer: (c) Keynesian Multiplier

The correct answer is Keynesian Multiplier.

Key Points

• The multiplier effect refers to the theory that government spending intended to stimulate the economy causes increases in private spending that additionally stimulates the economy.

• The different types of multipliers in economics are the Fiscal multiplier, Keynesian multiplier, Employment multiplier, Consumption multiple, etc.

• A Keynesian multiplier is a theory that states the economy will flourish the more the government spends.

• According to the theory, the net effect is greater than the dollar amount spent by the government.

Additional Information

• Earnings Multiplier or P/E Ratio = Price Per Share/ Earnings Per Share.

• Price per share is the prevalent market price of a company's stock.

• Earnings per share is the net profits earned by the company per share outstanding in the stock market.

• The earnings multiple is the stock price divided by earnings per share (EPS), and the units are expressed in years – that is, how many years of those earnings it would take to equal that stock price.

• The fiscal multiplier measures the effect that increases in fiscal spending will have on a nation's economic output, or gross domestic product (GDP).

Q87. Answer: (b) Sri Lanka

The correct answer is Sri Laka.

Key Points

• The Year 2021 ended on the correct note for the U-19 Indian justice platoon because it lifted the U-19 Asia Cup after beating Sri Lanka by nine lattices during a match that was intruded by rain on Friday in Dubai.

• Traipsing first, the Ceylon U-19 side was reduced to 106/9 in 38 overs as rain played killjoy within the final.

• Vicky Oswal sailed brilliantly to assert three lattices for 11 runs in eight overs. In reply, the India U-19 side was set a revised target of 102 runs which it ultimately chased down in 21.3 overs with nine lattices remaining.

• Opening batter Angkrish Raghuvanshi played a fine knock as India chased without important fuss.

Additional Information

• The Asian Cricket Council Asia Cup is a men's One Day International and Twenty20 International cricket tournament.

• It was established in 1983 when the Asian Cricket Council was founded as a measure to promote goodwill between Asian countries.

• The first Asia cup was held in 1984 in Sharjah in the United Arab Emirates.

• India has also won the most 7 titles out of 12 Asia Cup tournaments.

Q88. Answer: (d) Sunday

Given that:-

• No of days from 20 May 2018 to 26 August 2018 =11 + 30 + 31 + 26 = 98 as 2018 is a non-leap year.

• Since, it was Sunday on 20 May 2018, every 7th day from 20 May will be a Sunday.

• Thus, no. of odd days = 98/7 = 0

• Now,20 May 2018 (Sunday) + 0 odd days = 26 August 2018 (Sunday)

• 26 August 2018 will be a Sunday.

Hence, "option 4" is the correct answer.

Q89. Answer: (b) South-West

Explanation:

• Radha is sitting to the south of Krishna.

• Rahul is sitting to the east of Krishna.

• Radha is sitting in South- West direction to Rahul.

Hence, South-West is the correct answer.

Q90. Answer: (c) Shweta and Ekagra

Explanation:

• Number of people = 4 namely, Shweta, Ranu, Ekagra and Tanmay.

• They are seated at the four corners of a square table.

• Two of them are facing the centre while two are facing in the direction opposite to the centre.

• Ekagra is not facing the centre.

• Shweta is sitting to the immediate right of Ekagra.

• Tanmay is seated to immediate left of Ekagra.

• Ranu is seated to the immediate right of both Tanmay and Shweta.

• The final arrangement will be represented as:

• • Shweta and Ekagra are not facing the centre.

Hence, Shweta and Ekagra is the correct answer.

Q91. Answer: (d) 160 kg

GIven:

Initially Product A : B = 80% : 20% = 4 : 1

After removing 20 kg from A and 8kg from B = A : B = 9 : 2

Calculations:

Let initial amount of product A be '4x' and that of B be 'x'.

According to the question,

=> (4x - 20)/(x - 8) = 9/2

=> 2(4x - 20) = 9(x - 8)

=> 8x - 40 = 9x - 72

=> x = 72 - 40 = 32

Now total stock initially

=> 4x + x = 5x

=> 5 × 32 = 160kg

Therefore The total stock (in kg) in the beginning was 160kg.

Q92. Answer: (b) 109

Given:

100, 93, 103, 96, 106, 99, ?

The logic followed here is:

Alternate series

100, 103,106, and 93, 96, 99

=>100 + 3 = 103

=>103 + 3 = 106

=> 106 + 3 = 109

and,

=> 93 + 3 = 96

=> 96 + 3 = 99

The final series will be :

100, 93, 103, 96, 106, 99, 109

Hence, 109 is the correct answer

Q93. Answer: (c) Assam

The correct answer is Assam.

Key Points

• The three largest directors of mineral oil painting or crude oil painting in India are Rajasthan(23.7), Gujarat(12.5), Assam(12.1).

• Among these three countries, Assam is the largest patron of mineral oil painting in India.

• Assam, Gujarat and Rajasthan, which together regard for further than 96 percent of oil painting from onshore fields, and from the aged coastal Mumbai High Field.

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• Rajasthan has a share of about 23.29 in crude oil painting product in the country.

Additional Information

• Rajasthan

• Delivering his speech on the first day of the Budget Session, Singh said oilfields in the state were producing nearly 90 lakh tones oil painting annually, which is 24 per cent of the total domestic crude oil painting product.

• Where is petroleum set up in Gujarat.

• Ankleshwar, Lunej, Kalol, Nawgam, Kosamba, Kathana, Barkol, Mehsana, and Sanand are the important oil painting fields in this region.

• State/ Source 2014- 15 2018- 19

Gujarat, 653 626

Rajasthan 848 667

Tamil Nadu 241 395

Q94. Answer: (b) 4

There are 4 pairs of letters with as many letters between them as in English alphabetical order.

Forward Direction

First Pair

F(6) is at 3rd position from C(3), and the difference between them is 6 - 3 = 3

Second Pair

T(20) is at 5th position from O (15), and difference between them is 20 - 15 = 5

Third Pair

O(15) is at 2nd position from M(13), and the difference between them is 15 - 13 = 2

Backward Direction

Fourth Pair

T(20) is just after S(19), and the difference between them is 20 - 19 = 1

Therefore, there are only 4 such pairs in the word COMFORTS.

Hence, the correct answer is option(2)

Q95. Answer: (b) Odisha

The correct answer is Odisha.

Key Points

• Odisha is the largest patron of Iron ore in India. Orissa accounts for over half of India's iron ore product, producing 120 million tonnes during the 2019/ 2020 time.

• Iron ore is the primary mineral commodity by value in Minnesota, which leads the country in iron ore products.

• Haematite and magnetite are the most important iron ores in India.

• About 79 haematite ore deposits are set up in the Eastern Sector (Assam, Bihar, Chhattisgarh, Jharkhand, Odisha & Uttar Pradesh) while about 93 magnetite ore deposits do in Southern Sector (Andhra Pradesh, Goa, Karnataka, Kerala, & Tamil Nadu).

• Rajasthan is the largest producer of lead in India.

Additional Information

• Karnataka(24) leads the pack of countries in iron- ore products in India followed by Odisha(22) and Chhattisgarh(20).

• Including the top three along with Goa, Jharkhand, and Madhya Pradesh produce around 95 of the total iron- ore in India.

• Canister ore is being produced only in Chhattisgarh among Indian countries. bitty minerals and precious nature gold also do in the State.

• West Singhbhum is the top iron- ore mining quarter of Jharkhand and Manoharpur is one of the key mining blocks of the quarter, besides Noamundi, Gua, Jhikpani, etc.

• According to the final information of the state mining department, the quarter produced about 16.3 million tonnes of iron ore 2017- 18.

Q96. Answer: (c) Russia

The correct answer is Russia.

Key Points

• Russia successfully test-fired a hypersonic Zircon cruise missile over a distance of about 1,000 km (625 miles), the defence ministry said on Saturday.

• The Tsirkon hypersonic system was salvo-launched on December 24, 2021, and again launched on February 19, 2022.

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• Russia's hypersonic missile Zircon was fired from the Admiral Gorshkov frigate stationed in the Barents Sea and “successfully hit” a target stationed 1,000 km away in the White Sea

Additional Information

• Russia first tested the Zircon in January 2020 from the Russian Northern Fleet's Admiral Gorshkov, claiming it can reach speeds of up to Mach 9 (6,600 mph).

• Zircon is intended to arm Russian cruisers, frigates and submarines and could be used against both enemy ships and ground targets.

• Zircon had reached a speed of Mach 8 (6,100 mph; 9,800 km/h; 2,700 m/s) during a flight test.

Q97. Answer: (a) North, 50 m

Explanation:

• Ravish Kumar starts running facing towards the south.

• He runs for 20 m, then takes a left turn, and then runs for another 30 m.

• Again, he takes a left turn and runs 70 m.

• He then finally turns left and walks 30 m.

Hence, North, 50m is the correct answer.

Q98. Answer: (a) Dr. Sanghamitra Bandyopadhyay

The correct answer is Dr Sanghamitra Bandyopadhyay.

Key Points

• Sanghamitra Bandyopadhyay received the Padma Shri, 2022, for her scholarly record in algorithmic optimization and for its significant impact on birth data analysis.

• Her discoveries include an inborn marker for heart cancer, a determination of the occurrence of HIV and cancers and the work of white matter in Alzheimer's Disease.

• Sanghamitra Bandyopadhyay is presently the director of the Indian Statistical Institute(ISI), Kolkata.

• She took the Infosys Prize in Engineering and Computer Science in 2017 and was the other woman scientist to take the Shanti Swarup Bhatnagar Prize in Engineering lores.

Additional Information

• Among the honour rolls for the Padma Shri award posted on January 26, Dr Lata Desai was hugged by IIPH Gandhinagar(IIPH-G)on Thursday.

• Najma Akhtar is the first woman vice-chancellor of Jamia Millia Islamia(JMI), to receive the Padma Shri award.

Q99. Answer: (b) EWR

The positional values of English alphabet is as follows :

The pattern followed here is :

BUT is written as DWV

LOW is written as NQY

Similarly, CUP is written as:

Hence, EWR is the correct answer.

Q100. Answer: (d) ESL Narasimhan

The correct answer is ESL Narasimhan.

Key Points

• Ekkadu Srinivasan Lakshmi Narasimhan(born 1945) is an Indian former civil daily and politician who served as the first Governor of Telangana. He assumed office as the Governor of Andhra Pradesh in December 2009 and Governor of Telangana on 2 June 2014.

• S.L. Narasimhan is the longest-serving governor. Jishnu Dev Varma is the current serving governor of Telangana.

• A covert Indian Police Service officer, he before served as the Director of the Intelligence Bureau from February 2005 to December 2006. He also served as the Governor of Chhattisgarh from 2007 to 2009. Narasimhan served as Governor for 12 years making him the longest-serving Governor in India.

Additional Information

• Andhra Pradesh Telugu is a state in the southeastern coastal region of India.

• Andhra Pradesh was once a major Buddhist pilgrimage site in the country and a Buddhist learning centre.

• A person to be eligible for appointment as Governor should be a citizen of India and have completed age of 35 years (Article

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157).

• The governors of the states of India have similar powers and functions at the state level as those of the president of india at the central level.

• The governor acts as the nominal head whereas the real power lies with the chief ministers of the states

Q101. Answer: (a) Boreal forest

The correct answer is Boreal Forest.

Key Points

• Taiga, also called boreal wood, biome(major life zone) of foliage composed primarily of cone-bearing needle-leaved or scale-leaved evergreen trees, set up in northern circumpolar forested regions characterized by long layoffs and moderate to high daily hurry.

• A coniferous timber contains evergreen trees that bear cones. Elegant pines grow in this biome, along with sharp, fir, and tamarack.

• The coniferous timber is squeezed in between the champaign to the north and the evanescent timber to the south. One type of coniferous timber, the northern boreal wood, starts in 50 ° to 60 ° N runs.

• BOREAL wood(TAIGA) packed evergreen needle-riffled wood Typical mills include white trick, black trick, and jack pine.

Additional Information

• True rainforests are typically found between 10 degrees north and south of the equator

• They are a sub-set of the tropical forest biome that occurs roughly within the 28-degree latitudes.

• Chaparral is a coastal biome with hot, dry summers and mild, rainy winters.

• The chaparral area receives about 38–100 cm (15–39 in) of precipitation a year.

• Savannas flank tropical rainforests to the north and south.

Q102. Answer: (d) 7.2 hours

Given:

Pipe A can fill a tank in 30 hours

Pipe B can fill a tank in 45 hours

C alone can empty the full tank in 20 hours

Calculations:

Let the total work be 1

Work done by A in 1 hour = 1/30 units

Work done by B in 1 hour = 1/45 units

Work done by C in 1 hour = -1/20 units ----(-ve sign shows that it is emptying the tank)

Work done by C in 8 hour = -8/20 = -2/5 units ----(-ve sign shows that it is emptying the tank)

Work done by (A + B) to fill 2/5 tank emptied by C

=> 1/30 + 1/45 = 2/5 of tank

=> (3 + 2)/90 = 2/5

=> 1/18 = 2/5

=> (2/5) × 18 = 7.2 hours

Therefore The time taken by pipes A and B together take to fill the tank completely is 7.2 hours.

Q103. Answer: (b) 592 sq inches

Shortcut Trick

To find the cardboard required, calculate the Total Surface Area of the rectangular box.

Formula: Area = 2 × (Sum of products of adjacent dimensions)

Area = 2 × (12 × 8 + 8 × 10 + 10 × 12) = 2 × (96 + 80 + 120) = 2 × 296 = 592

Therefore The correct answer is 592 sq inches.

Alternate Method

Given:

Length (l) of the box = 12 inches

Width (w) of the box = 8 inches

Height (h) of the box = 10 inches

Formula Used:

Total Surface Area (TSA) of a cuboid = 2(lw + wh + hl)

Calculations:

=> Area = 2 × (12 × 8 + 8 × 10 + 10 × 12)

=> Area = 2 × (96 + 80 + 120)

=> Area = 2 × (296)

=> Area = 592 sq inches

Therefore The correct answer is 592 sq inches.

Additional Information

Volume of a Cuboid

The capacity or space inside the box is calculated as Volume = l × w × h.

Lateral Surface Area (LSA)

The area of the four side walls (excluding top and bottom) is given by LSA = 2h(l + w).

Space Diagonal of a Cuboid

The longest rod that can fit inside the box is the diagonal, $d = \sqrt{(l^2 + w^2 + h^2)}$.

Q104. Answer: (c) 98

Given:

average score in Mathematics of a class of 36 students is 60

After excluding two highest score, average goes down by 2

Second highest score of the class is 90

Concept:

Total Marks of Class = Average × Total Number of Students

Calculation:

Average marks of 36 Students = 60

Total Marks of Class = Average × Total Number of Students = 60 × 36 = 2160 -----Equation (1)

Now, when Two Top scores Excluded.

Number of Students Left = (36 - 2) = 34

New Average = (60 - 2) = 58

So,

Total Marks of Students = 34 × 58 = 1972 ------ Equation (2)

Number of Students Left = (36-2) = 34

New Average = (60 - 2) = 58

So,

Total Marks of Students = 34 × 58 = 1972 Equation (2)

Subtracting Equation (2) From Equation(1), we get

Total Marks of Top Two Students =(2160 - 1972) = 188

Now, Given That, Second Highest score of Class is 90

So,

Highest score of class = 188 - 90 = 98

Hence, Highest score of class is 98.

Q105. Answer: (b) Rajasthani

The correct answer is Rajasthani.

Key Points

• Rajasthani is not part of the eight schedule of the Constitution.

• The 71st Amendment Act, 1992 amended the 8th Schedule of the Constitution to incorporate Konkani, Manipuri, and Nepali Languages within the 8th Schedule of the Constitution.

• The constitutional provision relating to the eighth schedule occur in articles 344(1) and 351 of the constitution.

• The eighth schedule of the Indian constitution contains a listing of twenty-two scheduled languages.

• Bodo,Dogri,maithili and santhal languages are added by 92nd, Amendment,2003.

Additional Information

• Manipur- Manipur language added in 71st amendment act, 1992.

• Nepali- The Nepali language added in 71st amendment act, 1992.

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• Konkani- The Konkani language added in 71st amendment act, 1992.

Q106. Answer: (d) The Comptroller and Auditor General

The correct answer is The Comptroller and Auditor General.

Key Points

• Under the Constitution of India and the Act, it is the obligation of the Comptroller and Auditor General to review and cover the records of the Union Government and of the Governments of each State and Union Territory having a regulative gathering.

• The reports of the Comptroller and Auditor-General of India connecting with the records of a State will be submitted to the Governor of the State.

• Articles 148 – 151 of the Constitution of India deal with the institution of the CAG of India.

Additional Information

• The Comptroller and Auditor General (CAG) of India or the CAG is a power, laid out by Article 148 of the Constitution of India.

• The Comptroller and Auditor General of India are the Constitutional Authority in India, established under Article 148 of the Constitution of India.

• The Comptroller and Auditor-General of India are appointed by the President of India.

• In 1971, the central government enacted the Comptroller and Auditor General of India (Duties, Powers, and Conditions of Service) Act, 1971.

Q107. Answer: (b) Only conclusions I follows

Explanation:

Statements:

• All rocks are bangles.

• No bangle is ring.

• Some rings are chains.

The least possible Venn diagram for the given statements is as follows:

Conclusions I: Some bangles are rocks → True (as it is clear from the diagram drawn.)

Conclusions II: Some chains are bangles → False (as it is possible but there is no definite relation established between chains and bangles.)

Hence, Only conclusions I follows is the correct answer.

Q108. Answer: (a) Javelin throw

The correct answer is Javelin throw.

Key Points

• Neeraj Chopra battled the chances and Johannes Vetter to win the men's lance toss gold award at the Tokyo Olympics. Because of Neeraj Chopra, August 7 will constantly be a Red Letter Day in Indian brandishing history.

• On this day in 2021, Neeraj Chopra won the men's spear toss gold award at the Tokyo 2020 Olympic.

• Lance hurler Neeraj Chopra impacted the world forever on August 7, 2021, by winning India's very first gold decoration in games at the Tokyo Olympics. With a best toss of 87.58 meters, the 23-year-old defeated all comers in the men's spear toss last.

• Olympic Champion Neeraj Chopra has won Silver award in men's spear toss last at World Athletics Championships in the United States. He protected the second situation with a toss 88.13 meters in his fourth endeavor at Eugene in Oregon today.

Additional Information

• Denmark's Axelsen wins men's singles badminton gold at Tokyo Olympics. TOKYO, Aug 2 (Xinhua) - - Denmark's reality Victor Axelsen outmatched China's reigning champ Chen Long 21-15, 21-12 in the men's singles badminton last to guarantee the gold award at the Tokyo Olympics here on Monday.

• Avani Lekhara won India's most memorable award in taking shots at the Tokyo Paralympics in the ladies' 10m air rifle standing SH1 occasion on Monday.

• Lekhara won the gold decoration with an all-out score of 249.6 in the last, equalling the world record.

• Russia's ladies fencers won their second continuous Olympic gold decoration in the group saber occasion on Saturday, beating France 45-41 in a strained last.

Q109. Answer: (d) Assam

The correct answer is Assam.

Key Points

• Bon-Geet a form of folk song of Assam.

• Bongeets are a category of Assamese folk music, very closely resembling the 'Bihugeets'.

• Bongeet songs are quite favorable in the Assamese society since ancient times and these songs are mostly romantic songs, are sung by the local youngsters of Assam.

• The central idea of Bongeet is to convey the natural grandeur of nature, which includes songs describing the hues of dense forests, birds, flowers, and animals.

• Certain songs of Bongeet express the subtle emotions of tragedy, anxiety, love, and hatred and are devoid of religious influences.

Additional Information

• Indian folk music is diverse because of India's vast cultural diversity.

• The folk song of Manipur is Thoubal chongba.

• Jhoori is a popular form of traditional music in Himachal Pradesh.

Q110. Answer: (b) 12 cm²

Given:

In ΔABC, DE || BC, where D and E are points on AB and AC respectively.

AD : BD = 2 : 3

Area of trapezium BDEC = 63 cm²

Formula used:

Area of similar triangles = Square of the corresponding sides

Area(ΔADE)/Area(ΔABC) = (AD)²/(AB)²

Concept used:

If a line is drawn parallel to one side of a triangle, then the two triangles are similar.

AD : AB = DE : BC = AE : AC

Calculation:

According to the question,

In ΔABC,

=> DE || BC

=> angle A is common

=> angle ADE = angle ABC and angle AED = angle ACB (Alternate interior angles)

=> ΔADE ~ ΔABC

Now,

=> AD : BD = 2 : 3

=> AD : AB = 2 : (2 + 3)

=> AD : AB = 2 : 5

=> Area(ΔADE)/Area(ΔABC) = (AD)²/(AB)²

=> Area(ΔADE)/Area(ΔABC) = (2/5)²

=> Area(ΔADE)/Area(ΔABC) = 4/25

Let the area of ΔADE = x cm².

=> Area of ΔABC = 25x/4

Area of trapezium BDEC = Area(ΔABC) − Area(ΔADE)

=> 63 = 25x/4 − x

=> 63 = (25x − 4x)/4

=> 63 = 21x/4

=> x = (63 × 4)/21

=> x = 12 cm²

Therefore The area of ΔADE is 12 cm².

Q111. Answer: (b) MFOFA

The positional values of English alphabet is as follows :

The pattern followed here is :

'BLISS' is coded as 'MAITR'

'JAPAN' is coded as 'BIPOZ

Similarly, 'GLOBE' will be written as :

Hence, "MFOFA" is the correct answer.

Q112. Answer: (c) Father's sister's son

Family Chart:

Family tree according to question:

So,

Yuvika's father's mother's daughter means Yuvika's paternal aunt.

Hence, Father's sister's son is the correct answer.

Q113. Answer: (d) Africa

The correct answer is Africa.

Key Points

• The Maasai tribe is an indigenous ethnic group in Africa of semi-nomadic people settled in Kenya and northern Tanzania (Africa).

• One of the most vibrant indigenous societies on the continent, the pastoralist Maasai built an economy and way of life deeply intertwined with their cattle herds in the Great Rift Valley of southern Kenya and northern Tanzania.

• Cattle are the traditional partners of the Maasai people of East Africa.

• Masai warriors and boys perform a traditional dance in Kenya. Maasai, also spelled Masai, are nomadic pastoralists of East Africa.

• Maasai is essentially a linguistic term, referring to speakers of this Eastern Sudanic language (usually called Maa) of the Nilo-Saharan language family.

Additional Information

• The Sámi are the only indigenous people within the European Union area. Sápmi, the region the Sámi inhabits across four countries, consists of northern parts of Finland, almost half of Sweden and Norway, as well as parts of the Kola Peninsula in Russia.

• And if you are talking about both Aboriginal and Torres Strait Islander people, it's best to say either 'Indigenous Australians' or 'Indigenous people'.

• Without a capital “a”, “aboriginal” means “original inhabitant” in Latin.

• Aymara is a large South American Indian group living on the Altiplano—a vast windy plateau of the central Andes in Peru and Bolivia—with smaller numbers in Argentina and Chile. Their language is also called... South American nomads, indigenous inhabitants of South America living as nomadic hunters, gatherers, and fishers.

Q114. Answer: (d) 32

Given:

Internal radius of hemispherical bowl = 24 cm

Radius of the cylindrical shaped bottle = 6 cm

Height of the cylindrical shaped bottle = 8 cm

Concept :

Volume of hemispherical bowl = n x Volume of one cylindrical shaped bottle

Calculations:

Let number of bottles be n.

Internal radius of hemispherical bowl = 24 cm

Volume of hemisphere = $2/3\ \pi r^3$

=> $2/3 \times \pi \times 24 \times 24 \times 24$

=> $2\times \pi \times 24 \times 24 \times 8$

=> $9216\ \pi$

Volume of cylinder = $\pi r^2 h$

=> $\pi \times 6 \times 6 \times 8$

=> 288π

According to the question :

Volume of hemispherical bowl = n x Volume of one cylindrical shaped bottle

$9216\pi = n \times 288\pi$

$n = 9216/288$

$n = 32$

Hence, the required number of cylinder is 32.

Q115. Answer: (d) Finno-Ugric

The correct answer is Finno-Ugric.

Key Points

• A couple of dialects spoken on the European mainland are excluded from the Indo-European group of dialects.

• Finnish, Hungarian and Estonian have a place with the Uralic (likewise called Finno-Ugric) family, and Basque (expressed in the Pyrenees locale) has no hereditary connection to some other languages.

• The Finnic division of Finno-Ugric dialects is made out of five gatherings. The Baltic-Finnic bunch comprises Finnish, Estonian, Karelian (counting Olonets), Ludic, Veps, Ingrian, Livonian, and Votic.

• The Permic bunch comprises Komi (Zyryan), Permyak, and Udmurt (Votyak).

• The three most-communicated Uralic dialects, Hungarian, Finnish, and Estonian, are undeniably remembered for Finno-Ugric, albeit phonetic roots normal to the two parts of the customary Finno-Ugric language tree (Finno-Permic and Ugric) are far off.

Additional Information

• Other than Latin, the realized old Italic dialects are Faliscan (the nearest to Latin), Umbrian and Oscan (or Osco-Umbrian), and South Picene.

• The Indo-European family is partitioned into a few branches or sub-families, of which there are eight gatherings with dialects still alive today: Albanian, Armenian, Balto-Slavic, Celtic, Germanic, Hellenic, Indo-Iranian, and Italic; and another six regions that are currently terminated.

• Out of an all-out European populace of 744 million starting around 2018, some 94% are local speakers of an Indo-European language; inside Indo-European, the three biggest phyla are Romance, Germanic, and Slavic with in excess of 200 million speakers each, between them, representing near 90% of Europeans.

Q116. Answer: (a) Second to the right

Explanation:

• Number of employees = 8 namely, Ganesh, Raju, Rohit, Isha, Janak, Preeti, Chandan and Madhur.

• Their professions are Pilot, Doctor, Publisher, Engineer, General Manager, Union Leader, Researcher and Dean.

• These professions are not necessarily in the same order.

• They are sitting around a circular table, all facing the center.

• Raju is sitting second to the left of Preeti.

The Dean is to the immediate left of Preeti.

Only three people are there between the Dean and Ganesh.

There is only one person sitting between the Engineer and Ganesh.

The Publisher is sitting to the immediate right of the Engineer.

Madhur is sitting second to the right of Preeti.

Isha is the Dean.

Rohit and Janak are immediate neighbours of each other.

Neither Rohit nor Janak is the Engineer. So case 1 is eliminated.

The General Manager,GM is sitting to the immediate left of Raju.

The Union Leader is sitting second to the right of the Publisher.

The Researcher is an immediate neighbour of the Engineer.

Rohit is sitting second to the right of the Pilot.

Chandan sits second to the right of the Dean.

Hence, Second to the right is the correct answer.

Q117. Answer: (d) 28

Anu is ranked 14th from the top. That means there are 13 students above Anu.

Anu is 15th from the bottom. That means there are 14 students below her.

So total students 13 + Anu + 14 = 28 students.

Hence, 28 is the correct answer.

Q118. Answer: (b) Hari Shankar Parsai

The correct answer is Hari Shankar Parsai.

Key Points

• Harishankar Parsai was a Hindi writer. He was a noted satirist and humorist of modern Hindi literature.

• He was known for his simple and direct style.

• He won Sahitya Akademi Award in 1982, for his satire, “Viklaang Shraddha ka daur".

• Hari Shankar Parsai Awards

• Sahitya Akademi Award (1982).

• Sharad Joshi Award (1992).

Additional Information

• Khushwant Singh was an Indian author, lawyer, diplomat, journalist and politician.

• His experience in the 1947 Partition of India inspired him to write Train to Pakistan in 1956 (made into film in 1998), which became his most well-known novel.

• Atal Bihari Vajpayee was an Indian politician and diplomat who served three terms as the prime minister of India,

• He was PM for a term of 13 days in 1996, then for a period of 13 months from 1998 to 1999, followed by a full term from 1999 to 2004.

• The Vendor of Sweets is a book given by RK Narayana.

• Atal Bihari Vajpayee Poetry.

• Kaidi Kaviraj Ki Kundalian

• Amar Aag Hai

• Chuni Hui Kavitayein

Q119. Answer: (a) Beetroot

The correct answer is Beetroot.

Key Points

• Fibrous Root -

• In many plants, after the germination of the seed, the radicle's growth ceases, and roots, known as fibrous roots, start to form from the radicle's base.

• The fibrous root is another type of root system in which there is no primary root and the root emerges from the stem as thin, somewhat branched roots.

• Many monocotyledonous plants, including ferns, and other plants, have fibrous roots.

• Because there are adventitious roots present, the fibrous root system is also referred to as an adventitious root system.

• Fibrous roots are regarded as surface feeders because they do not go deeply into the soil; instead, they consume the top layer of soil and organic matter for food.

• Plants including grass, wheat, rice, maize, rosemary, coconut, and others have fibrous roots.

• Beetroot is an example of tap root system.

Additional Information

• One of the two fundamental root systems is the taproot, in which the primary root releases branches of secondary and tertiary roots that develop downward as the primary root tapers near the end.

• Examples of plants having taproot system: carrot, mustard, radish, turnip, beetroot, etc.

• Other characteristics of fibrous root:

• Fibrous roots, in contrast to tap roots, lack a primary root and are not divided into secondary and tertiary roots.

• This roots are unable to serve as an organ for storing food.

• When the plant is fully grown, the fibrous root emerges from the ground as a mat.

• It is thought to be essential for the prevention of soil erosion because they hold the surface soil securely and are more fastened to the soil's surface.

Q120. Answer: (b) Rs. 25,000

Given:

Total expenditure on college festival = Rs. 63,070

Production expenditure = 35%

Light and music expenditure = 25%

Advertisement expenditure = 15%

Food expense = 25%
Calculation:
Expenditure for food and advertisement together
(25 + 15)% × 63,070
=> (40/100) × 63,070
=> 25,228
=> 25,228 ~ 25,000
Hence, the approximate value of the expense required is Rs. 25,000.

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