SSC CHSL Tier-1 2024: Official Paper (Held On: 10 Jul, 2024 Shift 1) (Previous Year Paper)

SSC Combined Higher Secondary Level (CHSL) • 2024 • 100 questions • 60 minutes • Answer key and solutions

Take this paper as a timed mock test

Practise under exam conditions, then review your answers after you submit.

yourmocktest.com/pyq/ssc-chsl/ssc-chsl-tier-1-2024-official-paper-held-on-10-jul-2024-shift-1-p…

Scan the QR code or click the link to open it.

ENGLISH LANGUAGE

Q1. Parts of the given sentence have been underlined. One of them contains an error. The underlined parts are given as options with some changes. Select the option that correctly rectifies the error.

Raveena’s daughter Kavya is most intelligent student and she consistently achieves top grades.

(a) Raveenas’ daughter
(b) an intelligent
(c) she has consistently
(d) topper grades

Q2. The given sentence is divided into four segments. Select the option that has the segment with a grammatical error.

It was my niece / who was leaving college / last year, and / not my son.

(a) not my son.
(b) last year, and
(c) who was leaving college
(d) It was my niece

Q3. The given sentence is divided into three segments. Select the option that has the segment with a grammatical error. If there is no error, select ‘No error’.

The volunteer gave on to / the food packets to the / children of the orphanage.

(a) children of the orphanage.
(b) The volunteer gave on to
(c) the food packets to the
(d) No error

Q4. Select the most appropriate option that can substitute the underlined segment in the given sentence.

UNICEF builds partnerships across the global community on accelerate gender equality.

(a) global community till accelerate
(b) global community in accelerate
(c) global community with accelerate
(d) global community to accelerate

Directions

In the following passage, some words have been deleted. Select the most appropriate option for each blank.

I was reading a book two days back. It was titled Charlie and the Chocolate Factory by Roland Dahl. It was fantastic. It has now become my favourite (1)_____. It is about a boy named Charlie who is (2) ____ poor. He wins a golden ticket that (3) ____ him to enter the most famous chocolate factory in the world. He (4) ____it with his grandfather. But the other kids who accompany him are nasty. They are all spoilt. But you have to read the book to (5) _____out more about them. The amazing part of the book is that it is like a dream come true.

Q5. Select the most appropriate option to fill in blank no. 1.

(a) guide
(b) manual
(c) book
(d) text

Q6. Select the most appropriate option to fill in blank no. 2.

(a) very
(b) nicely
(c) finally
(d) properly

Q7. Select the most appropriate option to fill in blank no. 3.

(a) suffers
(b) gets
(c) allows
(d) bears

Q8. Select the most appropriate option to fill in blank no. 4.

(a) explores
(b) inspects
(c) examines
(d) visits

Q9. Select the most appropriate option to fill in blank no. 5.

(a) find
(b) spot
(c) locate
(d) unlearn

Q10. Select the most appropriate option to correct the sentence by using the denotation of the underlined word.

Mr. Sen is clever enough to handle his professional hazards.

(a) Bold
(b) Foolish
(c) Intelligent
(d) Callous

Q11. Select the most appropriate synonym of the given word.

Alert

(a) Dull
(b) Inactive
(c) Vigilant
(d) Smart

Q12. Select the option that will improve the underlined part of the given sentence.

Allusive handwriting creates a poor impression.

(a) Legal handwriting
(b) Eligible handwriting
(c) Illegible handwriting
(d) Descriptive handwriting

Q13. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select No improvement required.

Although uncountable files stack up on the tables of government officials, they prefer doing their work at a more leisure pace.

YourMockTest.com — Free Study Material

(a) at a more leisurely paced
(b) at a more leisurely pace
(c) at a more leisure paced
(d) No improvement needed

Q14. Select the most appropriate ANTONYM of the given word.

Timid

(a) Audacious
(b) Blunt
(c) Resolute
(d) Assertive

Q15. Select the most appropriate ANTONYM of the given word.

Sluggish

(a) Lethargic
(b) Leisurely
(c) Rapid
(d) Hassled

Q16. Select the option that rectifies the spelling of the underlined word in the given sentence.

It was a privvilege to receive the award from the President.

(a) privilegge
(b) privileege
(c) privillege
(d) privilege

Q17. Select the most appropriate option that can replace the bracketed word segment in the following sentence.

Classical buildings in ancient Greek and Roman times were (characteristically built) from marble or some other attractive, durable stone.

(a) typically built
(b) fascinating to build
(c) strange build
(d) mainly having been built

Q18. Select the most appropriate synonym of the given word.

Retract

(a) Implement
(b) Disturb
(c) Please
(d) Revoke

Q19. Select the most appropriate ANTONYM of the given word.

Enormous

(a) Strong
(b) Tremendous
(c) Monstrous
(d) Minute

Q20. Select the most appropriate option to fill in the blank.

I find that students nowadays are not interested in _____ letters by hand.

(a) righting
(b) rating
(c) rioting
(d) writing

YourMockTest.com — Free Study Material

Q21. Select the most appropriate option that can substitute the underlined segment in the given sentence.

The housing loan taken by Ramesh effected his daily expenses adversely.

(a) of Ramesh effected
(b) for Ramesh effected
(c) from Ramesh effected
(d) by Ramesh affected

Q22. Select the most appropriate synonym of the underlined word.

For Rana, unable to see a thing, the parade seemed to last forever.

(a) procession
(b) hiding
(c) darkness
(d) concealment

Q23. Select the sentence that brings out the most appropriate meaning of the idiom

'Dog in the manger'.

(a) Rachit had some important work and so he cancelled the show tickets for everyone.
(b) Mohit was so loyal and committed to his company that he rejected lucrative offers from different companies.
(c) You are here just because you have recognised your hidden potential.
(d) To prove this is not a trap, I want to check the credibility of your plan.

Q24. Select the INCORRECTLY spelt word in the given sentence.

The Chinese are believed to have a longer history than that of any other civilisation in the wolrd.

(a) Chinese
(b) Wolrd
(c) Civilisation
(d) Believed

Q25. Select the most appropriate meaning of the underlined idiom.

The technicians who were repairing the broken elevator called it a day.

(a) Stopped to take a short break
(b) Shouted with anger
(c) Felt unhappy
(d) Stopped work for the day

GENERAL INTELLIGENCE

Q26. In a certain code language

A + B means 'A is the mother of B'

A – B means 'A is the brother of B'

A × B means 'A is the husband of B'

A ÷ B means A is the father of B'

Based on the above, how is K related to L if 'K × Q + R − S ÷ L'?

(a) Father's father
(b) Father's mother's father
(c) Father's father's brother
(d) Father's brother

Q27. If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '–', then the resultant of which of the following will be 218?

(a) 32 B 8 D 160 A 2 C 42
(b) 32 A 8 D 160 B 2 C 42
(c) 32 B 8 D 160 C 2 A 42

YourMockTest.com — Free Study Material

(d) 32 C 8 D 160 A 2 B 42

Q28. The position of how many letters will remain unchanged if each of the letters in the word DOCUMENTARY is arranged from left to right in alphabetical order?

(a) Three
(b) Two
(c) One
(d) None

Q29. If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '-', what will come in place of the question mark (?) in the following equation?

14 B 11 D 22 C 328 A 8 = ?

(a) 133
(b) 173
(c) 153
(d) 163

Q30. Select the word-pair that best represents a similar relationship to the one expressed in the pair of words given below.

(The words must be considered as meaningful English words and must not be related to each other based on the number of letters/number of consonants/vowels in the word.)

Flower - Petal

(a) Tiny - Large
(b) Clarify - Explain
(c) Horse - Mare
(d) Fruit - Seed

Q31. Which of the following letter-clusters can replace the question mark (?) in the given series to make it logically complete?

AFK, ?, IXM, MTN, QPO

(a) FAL
(b) FAE
(c) EBL
(d) EBC

Q32. Select the letter-cluster pair that best represents a similar relationship to the one expressed in the pairs of letter-clusters given below.

VPN : ZTR

SMK : WQO

(a) HDB : MIG
(b) PMK : TOL
(c) LFD : PJH
(d) KFD : OJK

Q33. In a certain code language, 'strength to innovate' is coded as '42 64 32' and 'strength to create' is coded as '32 42 24'. What is the code for 'create' in that language?

(a) 24
(b) 32
(c) 42
(d) 64

Q34. Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.

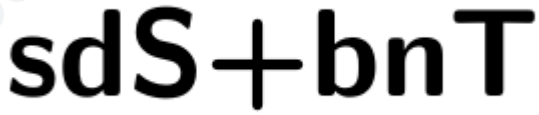
YourMockTest.com — Free Study Material



(a)



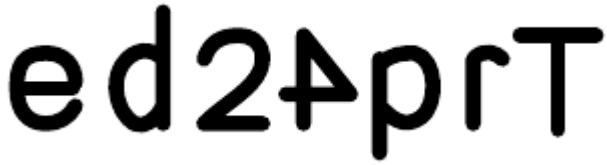
(b)



(c)



(d)

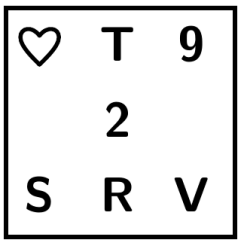


Q35. Identify the figure given in the options that when put in place of the question mark (?) will logically complete the series.

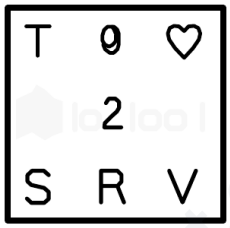
T = 9 R O S ♡	O S T = ♡ R 9	T O S V 9 ♡ R	9 ♡ T O R V S	?

Free Study Material — YourMockTest.com

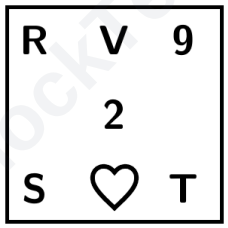
(a)



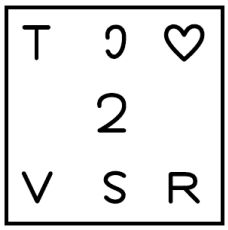
(b)



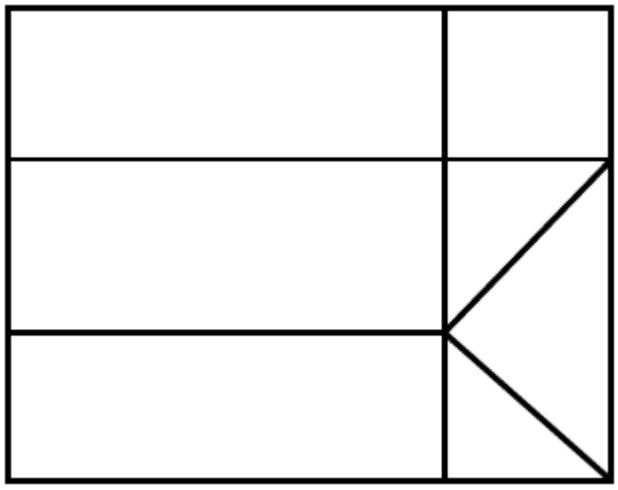
(c)



(d)



Q36. How many quadrilaterals are there in the given figure?



(a) 10
(b) 7
(c) 11
(d) 12

YourMockTest.com — Free Study Material

Q37. If 23 June 2008 was Monday, then what was the day of the week on 23 June 2020?

(a) Saturday
(b) Tuesday
(c) Wednesday
(d) Sunday

Q38. Three of the following four letter-clusters are alike in a certain way and thus form a group. Which is the one that does NOT belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter cluster.)

1) EFINU

2) BCFKR

3) JKNSZ

4) HIMQX

(a) EFINU
(b) JKNSZ
(c) HIMQX
(d) BCFKR

Q39. Which of the following numbers will replace the question mark (?) in the given series?

612 571 535 504 478 ?

(a) 468
(b) 435
(c) 457
(d) 444

Q40. What should come in place of ? in the given series based on the English alphabetical order?

BJR ? RTH MYC HDX

(a) MOW
(b) OWM
(c) OMW
(d) WOM

Q41. What should come in place of ? in the given series?

155 146 137 128 119 ?

(a) 133
(b) 110
(c) 111
(d) 122

Q42. Three statements are followed by conclusions numbered I, II. You have to consider these statements to be true, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statements:

All houses are trees.

All trees are stones.

All stones are rocks.

Conclusion (I): Some stones are trees.

Conclusion (II): All houses are rocks.

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

YourMockTest.com — Free Study Material

Q43. In a certain code language, 'DIVERT' is coded as '36' and 'DOLDRUMS' is coded as '64'. What is the code for 'DOGMA' in the given code language?

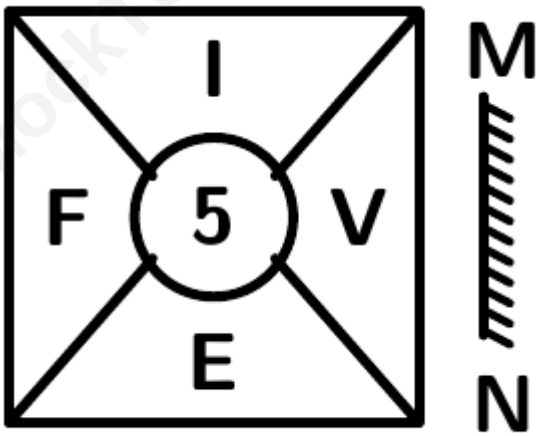
(a) 64
(b) 36
(c) 49
(d) 25

Q44. 92 is related to 23 following a certain logic. Following the same logic, 136 is related to 34. To which of the following is 224 related, following the same logic?

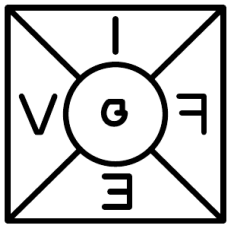
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /deleting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(a) 58
(b) 52
(c) 54
(d) 56

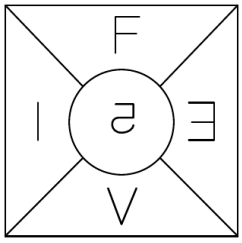
Q45. Select the correct mirror image of the given figure when the mirror is placed at MN.



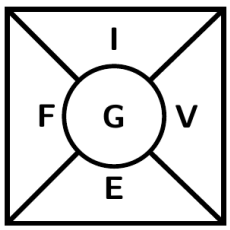
(a)



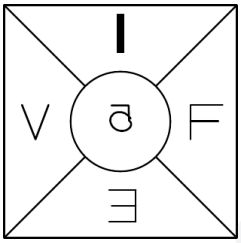
(b)



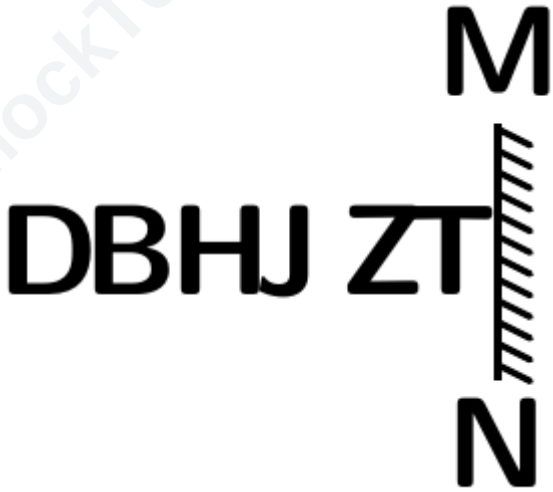
(c)



(d)



Q46. Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



(a)



(b)



(c)



YourMockTest.com — Free Study Material

(d)



Q47. Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(5, 4, 41)

(7, 2, 53)

(a) (10, 5, 130)
(b) (11, 9, 204)
(c) (9, 3, 90)
(d) (13, 6, 208)

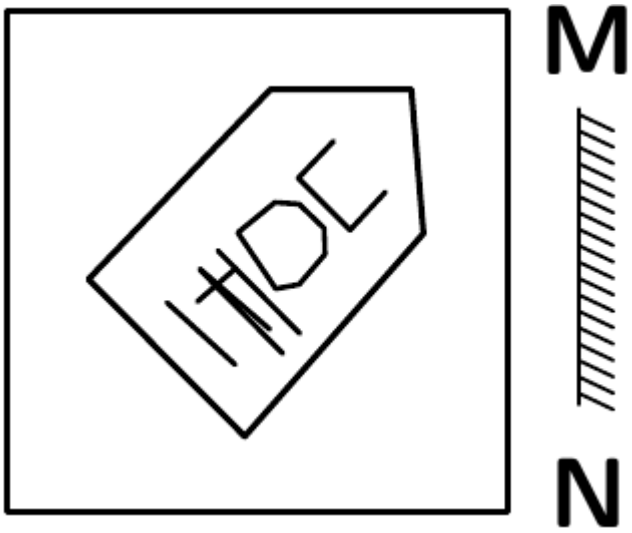
Q48. Which two numbers should be interchanged to make the given equation correct?

15 × 5 − 75 + (300 ÷ 6) + 3 × 19 = 115

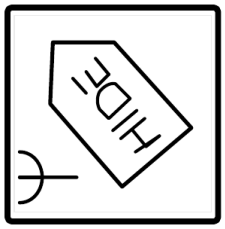
(NOTE: Numbers must be interchanged and not the constituent digits e.g. if 2 and 3 are to be interchanged in the equation 43 × 3 + 4 ÷ 2, then interchanged equation is 43 × 2 + 4 ÷ 3)

(a) 6 and 3
(b) 6 and 5
(c) 15 and 19
(d) 15 and 6

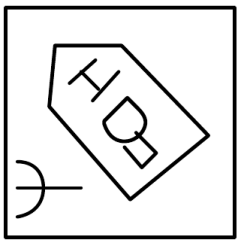
Q49. Select the correct mirror image of the given figure when the mirror is placed at MN as shown below. Ans 1. 2. 3. 4. https://link.testbook.



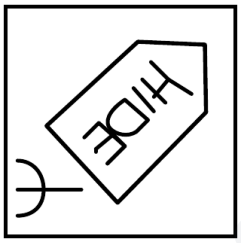
(a)



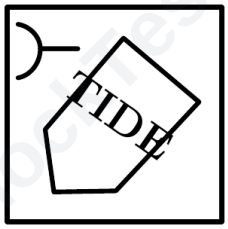
(b)



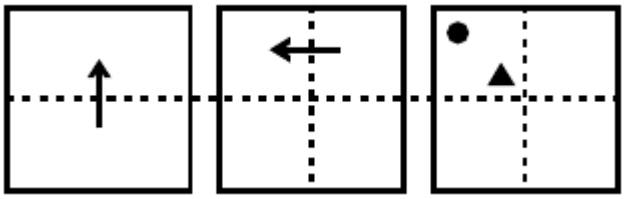
(c)



(d)



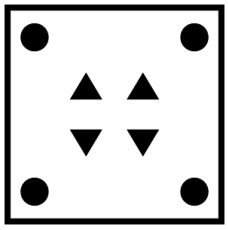
Q50. A square sheet of paper is folded along the dotted line successively along the directions shown and is then punched in the last. How would the paper look when unfolded?



(a)

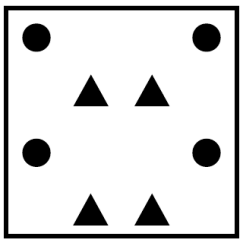


(b)

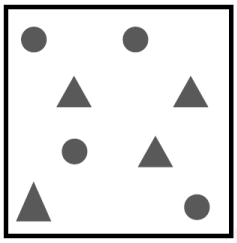


YourMockTest.com — Free Study Material

(c)



(d)



QUANTITATIVE APTITUDE

Q51. In an election between two candidates, A gets 63% of the total valid votes. If the total votes polled were 8,750, what is the number of valid votes that the other candidate B gets, if 20% of the total votes were declared invalid?

(a) 3,560
(b) 2,590
(c) 4,410
(d) 6,450

Q52. A cyclist rides 10 km at an average speed of 15 km/hr and then the next 15 km at an average speed of 10 km/hr. The average speed of the entire ride is:

(a) 12.5 km/hr
(b) 20 km/hr
(c) 11.54 km/hr
(d) 10 km/hr

Q53. The sum of the digits of a two-digit number is 9. If the digits are reversed, then the number is increased by 27. Find the number.

(a) 36
(b) 63
(c) 45
(d) 54

Q54. A vendor sells his goods using weights 19% less than true weights and makes a profit of 35%. His net gain percentage (rounded off to 2 decimal places) is:

(a) 81.33%
(b) 66.33%
(c) 81.67%
(d) 66.67%

Q55. 55 workers can finish a work in 16 days. For finishing the same work in 10 days, how many more workers are required?

(a) 88
(b) 68
(c) 31
(d) 33

YourMockTest.com — Free Study Material

Q56. Ram spends 30% of his salary on food, 10% on house rent, 7% on entertainment, and 6% on conveyance. If at the end of a month his savings are Rs. 1,880, then his monthly salary is:

(a) Rs. 4,500
(b) Rs. 5,500
(c) Rs. 5,000
(d) Rs. 4,000

Q57. The total number of students in different subjects of a college and percentage of girls and boys are shown in the below table.

Girls students and boys student are NOT having multiple subjects.

Subjects	Number of Students	Girls %	Boys %
Mathematics	840	40	60
Chemistry	220	70	30
Physics	450	30	70
Biology	200	80	20

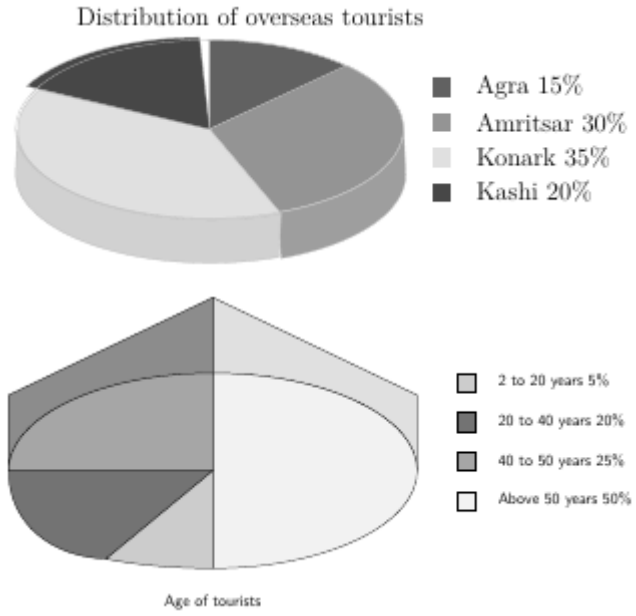
What is the percentage of girl students in the college?

(a) 42.9
(b) 46.9
(c) 45.2
(d) 45.9

Q58. A mirror is placed on the ground facing upwards. A man sees the top of a tower in the mirror which is at a distance of 105 m from the mirror. The man is 0.5 m away from the mirror, and his height is 1.5 m. Find the height of the tower (in metres).

(a) 210
(b) 315
(c) 280
(d) 115

Q59. Study the given pie charts and answer the question that follows.



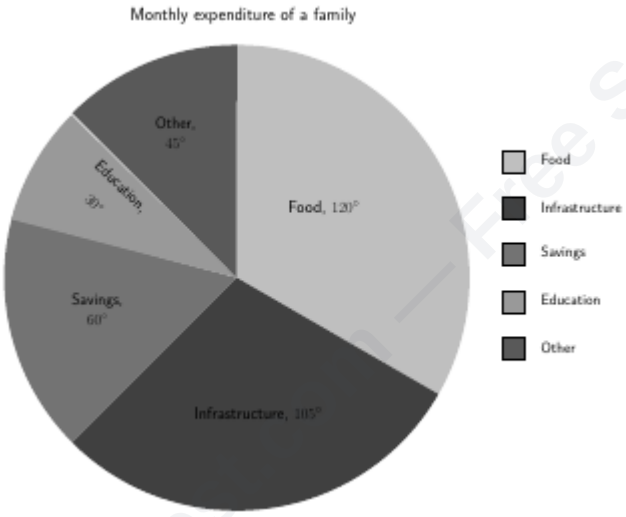
What percentage of tourists went to Agra and Kashi?

(a) 20%
(b) 35%
(c) 17.5%

YourMockTest.com — Free Study Material

(d) 15%

Q60. The savings and expenditure of a family in a month on different heads is shown in the given pie chart. The family saves Rs. 8,000 per month.



Find the ratio of the expenditure on food to that on savings.

(a) 2 : 1
(b) 4 : 1
(c) 3 : 1
(d) 5 : 1

Q61. A sum of Rs. 2,430 gives a simple interest of Rs. 1,093.50 in 3 years. The rate of interest per annum is:

(a) 25%
(b) 20%
(c) 10%
(d) 15%

Q62. A patient in a hospital is given tea daily in a cylindrical cup of diameter 7 cm. If the cup is filled with tea to a height of 4 cm, how much tea the hospital has to prepare daily to serve 180 patients? (Use π = 22/7)

(a) 27.27 litres
(b) 22.27 litres
(c) 22.77 litres
(d) 27.72 litres

Q63. (8^6 + 1) when divided by 7, would leave a remainder of:

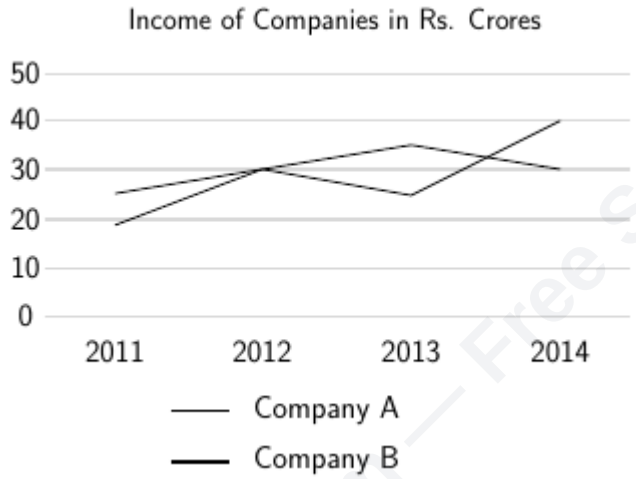
(a) 2
(b) 4
(c) 1
(d) 6

Q64. A cuboidal water purifier can carry 10 litres of water. Its breadth is 1/5 of its height and length is 1/3 of the sum of the breadth and height. The height of the tank is:

(a) 80 cm
(b) 20 cm
(c) 50 cm
(d) 10 cm

Q65. Read the given information and answer the question that follows.

YourMockTest — Free Study Material



If Company A makes 25% of income as profit in 2014, then its expenditure in that year is:

(a) Rs. 40 crores
(b) Rs. 35 crores
(c) Rs. 32 crores
(d) Rs. 30 crores

Q66. R wishes to use a stick of length 6 units as common internal tangent to two circles of radius two units and three units. What can be the maximum distance (in units) between the centres of the circle?

(a) √61
(b) √33
(c) √37
(d) √67

Q67. If tan A = √2 - 1 then find the value of sin A cos A + tan A.

(a) (5 √2+4)/4
(b) (5 √2-4)/4
(c) (24 √2+15)/4
(d) (24 √2-15)/4

Q68. A person reaches his destination 30 minutes late, if his speed is 3 km/h, and reaches 30 minutes before time if his speed is 4 km/h. Find the distance of his destination from his starting point.

(a) 11 km
(b) 12 km
(c) 13 km
(d) 14 km

Q69. Four years ago, Ravi was four times as old as Kavya. Seven years from now, Ravi will be three times as old as Kavya. Find the sum of their present ages.

(a) 117 years
(b) 115 years
(c) 118 years
(d) 122 years

Q70. If the radius of a circle is 48 cm and the length of the arc is 15 cm, then the area of the sector corresponding to that arc is:

(a) 360 m2
(b) 7200 m2
(c) 720 cm2
(d) 360 cm2

YourMockTest.com — Free Study Material

Q71. A rectangle with the largest area is cut out of a circle with radius 5 units. What is the area of the remaining portion?

(a) 25(π - 2)
(b) 25(2π - 5)
(c) 25(π - 3)
(d) 25(2π - 3)

Q72. Raju and Ramu have more land than Sonu by 15% and 25%, respectively. What is the ratio of land owned by Raju and Ramu?

(a) 25 : 23
(b) 15 : 25
(c) 21 : 23
(d) 23 : 25

Q73. Simplify the following:

12 ÷ 4 of 3 × 6 + 8 ÷16 of 4 × 8 - 4 ÷ 6 x 9

(a) 13
(b) 61/4
(c) 1
(d) -1

Q74. To finish a work, P takes half of the number of days required by Q to finish it. If they together can finish the work in 36 days, then in how many days Q alone can finish the work?

(a) 108
(b) 84
(c) 24
(d) 60

Q75. The radii of the two circles are 7 cm and 4 cm. If the distance between their centres is 25 cm, then the length of the transverse common tangent is equal to:

(a) 6√12 cm
(b) 6√14 cm
(c) 6√13 cm
(d) 6√11 cm

GENERAL AWARENESS

Q76. Where is the renowned Bhatkhande music institute located?

(a) Chennai
(b) Lucknow
(c) Madurai
(d) Surat

Q77. Which of the following statements is INCORRECT about the Music of India?

(a) Tala is a cyclic arrangement of time units.
(b) The musical instrument Kamaicha is majorly used by the ‘Manganiar’ Community of Manipur as a popular accompaniment to their songs
(c) A raga is believed to have started as a tribal or folk tune.
(d) The sruti is a unit of measure or small difference between the various consecutive pitches within a grama or a scale.

Q78. In which year did the Bhopal gas tragedy occur?

(a) 1984
(b) 1982
(c) 1988
(d) 1985

YourMockTest.com — Free Study Material

Q79. Identify a carbohydrate but does not fit into the definition.

(a) Sucrose
(b) Fructose
(c) Maltose
(d) Rhamnose

Q80. What is the duration of International hockey match?

(a) 50 min
(b) 60 min
(c) 70 min
(d) 55 min

Q81. In MS Word, which icon from the icons below the Menu Bar is commonly used to save the current document?

(a) The floppy disk icon
(b) The undo icon
(c) The envelope icon
(d) The printer icon

Q82. Which of the following Fundamental Rights is available for Indians as well as foreigners?

(a) Right to elementary education
(b) Right of minorities to establish and administer educational institutions
(c) Equality of opportunity in matters of public employment
(d) Right to protection of language, script and culture of minorities

Q83. The Himalayas' outermost range is called _____.

(a) Dhaula Dhar
(b) Pir Panjal
(c) Kanchenjunga
(d) Shiwaliks

Q84. Rukmini Devi Arundale is associated with which art form?

(a) Painting
(b) Mural
(c) Dance
(d) AKT Mohun Bagan

Q85. Consider the following:

Which of the following reasons may be considered as India's pull factors for migration?

1) Labour demand
2) Natural disaster
3) Protection of human and civil rights
4) High consumption and living standards

(a) Only 2, 3 and 4
(b) Both 1 and 4
(c) Only 1, 3 and 4
(d) Only 2

Q86. Which of the following is/are an example of public goods?

a) Defense
b) House

(a) Only b
(b) Neither a nor b
(c) Both a and b
(d) Only a

YourMockTest.com — Free Study Material

Q87. Which revolutionary organisation was established at Feroz Shah Kotla in New Delhi in 1928?

(a) Bharat Naujawan Sabha
(b) Swadesh Bandhab Samiti
(c) Hindustan Socialist Republican Association
(d) Indian Home Rule Society

Q88. In addition to using the arrow keys and mouse clicks, what other method can be used to move around a table in Microsoft Word?

(a) Right-clicking on the cell and selecting 'Move to Next Cell'
(b) Pressing the 'Ctrl' key and clicking on the cell
(c) Using the Tab key or double-clicking on the cell
(d) Pressing the 'Enter' key or using the scroll wheel

Q89. In 1812, who described the hypothesis that equal volumes of different gases contain an equal number of molecules?

(a) John Dalton
(b) James Watt
(c) Amedeo Avogadro
(d) Albert Einstein

Q90. Which of the following statements about Akbar are true?

1 He introduced the Mansabdari system.
2 He defeated and merged the state of Bijapur in his empire.
3 He made Fatehpur Sikri his capital.

(a) All 1, 2, 3
(b) Only 1 and 2
(c) Only 2 and 3
(d) Only 1 and 3

Q91. In which of the following states is the Sanchi Stupa UNESCO world heritage site located?

(a) Bihar
(b) Punjab
(c) Madhya Pradesh
(d) Rajasthan

Q92. Which of the following persons was appointed Chairman of the Second National Judicial Pay Commission?

(a) Justice R Basant
(b) Justice PV Reddi
(c) Justice JS Verma
(d) Justice AS Anand

Q93. National Sports Day is celebrated on the birthday of _____.

(a) Major Dhyan Chand
(b) MS Dhoni
(c) Kapil Dev
(d) Roop Singh

Q94. A constellation of the northern sky easily recognised by a group of five bright stars forming a slightly irregular 'W' is called:

(a) Cygnus
(b) Cassiopeia
(c) Orion
(d) Ursa Major

YourMockTest.com — Free Study Material

Q95. On 2 March 2023, the Supreme Court delivered an order on appointments to the Election Commission. According to this order, appointments will be done under the recommendation of a committee having which of the following members?

(a) Prime Minister, Chief Justice of India and Speaker of the Lok Sabha
(b) Prime Minister, Leader of the opposition and Speaker of the Lok Sabha
(c) Prime Minister, Leader of the opposition and Chief Justice of India
(d) Prime Minister, Leader of the opposition and Chairman Rajya Sabha

Q96. Which of the following states is famous for celebrating the festival of Vijaya Dashami, which marks the end of Durga Puja?

(a) Telengna
(b) West Bengal
(c) Rajasthan
(d) Chhattisgarh

Q97. Which of the following is NOT a characteristics of the National Investment and Manufacturing Zones (NIMZs) of India?

(a) The state government will provide power connectivity, water and other infrastructural facilities.
(b) At least 30% of the total land area proposed for the NIMZ is to be utilized for manufacturing units.
(c) A special purpose vehicle will be constituted to take care of the functioning of NIMZs
(d) It prescribes a minimum area of 10000 hectares for establishing NIMZs.

Q98. In which year was the National Human Rights Commission established in India?

(a) 2003
(b) 1995
(c) 2005
(d) 1993

Q99. Which of the following Amendment Acts led to the insertion of Article 21 A?

(a) Eighty-sixth Amendment Act, 2002
(b) Eighty-fourth Amendment Act, 2002
(c) Eighty-seventh Amendment Act, 2003
(d) Eighty-fifth Amendment Act, 2002

Q100. Which of the following teams won the Indian Super League 2022-23?

(a) Mumbai City FC
(b) Hyderabad FC
(c) Bengaluru FC
(d) AKT Mohun Bagan

ANSWER KEY

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

YourMockTest.com — Free Study Material

SOLUTIONS

Q1. Answer: (b) an intelligent

The correct answer is Option 2.

Key Points

• The primary issue in the sentence is the omission of the article "an" before the term "intelligent."

• Singular countable nouns typically require an article ("a" or "an").

• The correct phrase should be "an intelligent," ensuring grammatical correctness and clarity.

• Thus, the error is located in part 2 of the sentence.

Therefore, the correct answer is Option 2.

Correct Sentence: "Raveena's daughter Kavya is an intelligent student and she consistently achieves top grades."

Additional Information

• 1: "Raveena's daughter, " – This part of the sentence is grammatically correct and does not require any changes.

• 3: "she has consistently" – This part of the sentence is grammatically correct and does not require any changes.

• 4: "topper grades" – This part of the sentence is grammatically correct and does not require any changes.

Q2. Answer: (c) who was leaving college

The correct answer is Option 3.

Key Points

• The primary issue in the sentence is the incorrect use of the past continuous tense "was leaving" in the context of a specific past event.

• To describe a completed action that happened at a specific time in the past, the past simple tense should be used.

• The correct phrase should be "who left college" to ensure grammatical correctness and clarity.

• Thus, the error is located in part 3 of the sentence.

Therefore, the correct answer is 3.

Correct Sentence: "It was my niece who left college last year, and not my son."

Additional Information

• 4: "It was my niece" – This part of the sentence is grammatically correct and does not require any changes.

• 2: "last year, and" – This part of the sentence is grammatically correct and does not require any changes.

• 1: "not my son." – This part of the sentence is grammatically correct and does not require any changes.

Q3. Answer: (b) The volunteer gave on to

The correct answer is Option 2.

Key Points

• The primary issue in the sentence is the use of the preposition "on" in the phrase "gave on to."

• The correct preposition should be "out" instead of "on."

• The correct phrase should be "gave out the food packets to the children," ensuring grammatical correctness and clarity.

• Thus, the error is located in part 2 of the sentence.

Therefore, the correct answer is Option 2.

Correct Sentence: "The volunteer gave out the food packets to the children of the orphanage."

Additional Information

• children of the orphanage – This part of the sentence is grammatically correct and does not require any changes.

• the food packets to the – This part of the sentence is grammatically correct and does not require any changes.

• No error – This would be the correct option if there were no mistakes in the sentence, but there is an error in part 2.

Q4. Answer: (d) global community to accelerate

The correct answer is Option 4.

Key Points

• The phrase "on accelerate" is not grammatically correct.

• The correct preposition to use in this context is "to".

• Therefore, the correct phrase is "to accelerate".

Therefore, the correct answer is Option 4.

YourMockTest.com — Free Study Material

Q5. Answer: (c) book

The correct answer is Option 3.

Key Points

• The word "book" is most appropriate to use in this context.

• A "guide" is a book that provides information or instructions about a topic but isn't suitable here.

• A "manual" is a handbook or a set of instructions, usually for technical items, and doesn't fit here.

• A "text" can refer to any written content but isn't the specific word usually used to refer to literary works for personal enjoyment.

Therefore, the correct answer is 'Option 3'.

Complete Sentence: It has now become my favourite book.

Additional Information

• Guide: A book that provides information or instructions about a specific topic.

• Manual: A handbook or a set of instructions, typically for technical items or procedures.

• Text: Written or printed words and passages, but not specifically referring to literary works meant for enjoyment.

Q6. Answer: (a) very

The correct answer is Option 1.

Key Points

• The word "very" is the most appropriate to use in this context.

• "Very" is used to emphasize the degree of something, in this case, Charlie's poverty.

• "Nicely" means in a pleasant or satisfactory manner, and it doesn't fit the context.

• "Finally" means after a long time, typically when an effort, journey, or process has reached a conclusion, and it doesn't fit the context.

• "Properly" means in a manner that is satisfactory or appropriate, and it doesn't fit the context.

Therefore, the correct answer is 'Option 1'.

Complete Sentence: It is about a boy named Charlie who is very poor.

Additional Information

• Nicely: In a pleasant or satisfactory manner, not suitable for this context.

• Finally: After a long time, usually when an effort, journey, or process has come to an end, not suitable in this context.

• Properly: In a manner that is satisfactory or appropriate, not suitable in this context.

Q7. Answer: (c) allows

The correct answer is Option 3.

Key Points

• The word "allows" is the most appropriate to use in this context.

• The golden ticket "allows" Charlie to enter the chocolate factory, which means it gives him permission or the ability to enter.

• "Suffers" means to experience pain or misery, which does not fit the context here.

• "Gets" means to receive something, but the sentence needs a verb that denotes permission or enabling, not just acquisition.

• "Bears" means to carry or endure something, which isn't suitable in this context.

Therefore, the correct answer is 'Option 3'.

Complete Sentence: He wins a golden ticket that allows him to enter the most famous chocolate factory in the world.

Additional Information

• Suffers: To experience pain, distress, or hardship, which is not contextually appropriate here.

• Gets: To receive something, but the context requires a verb meaning to grant permission or enable.

• Bears: To carry or endure, which does not fit the intended meaning.

Q8. Answer: (d) visits

The correct answer is Option 4.

Key Points

• The word "visits" is the most appropriate to use in this context.

• Charlie "visits" the chocolate factory with his grandfather, which means they go to see and explore it.

• "Explores" means to travel through an area to learn about it, which is close but not as specific to the context as "visits".

• "Inspects" means to examine carefully, especially for errors or problems, which doesn't fit the situation as well.

• "Examines" means to look at something carefully and in detail, which is also not as contextually appropriate as "visits".

YourMockTest.com – Free Study Material

Therefore, the correct answer is 'Option 4'.

Complete Sentence: He visits it with his grandfather.

Additional Information

• Explores: This means to travel through an area for discovery, which is less specific than "visits".

• Inspects: This means to look at something closely to judge its condition or quality, which is not what Charlie and his grandfather are doing.

• Examines: This means to investigate or look at something in detail, which is not as fitting as simply "visits".

Q9. Answer: (a) find

The correct answer is Option 1.

Key Points

• The word "find" is the most appropriate to use in this context.

• Charlie reads the book to "find out more" about the other kids, meaning to discover or learn additional information.

• "Spot" means to see or notice, which doesn't fit as well in the context of learning more information.

• "Locate" means to find the exact position of something, which is less appropriate than the general discovery implied by "find."

• "Unlearn" means to discard previously learned information, which is incorrect here.

Therefore, the correct answer is 'Option 1'.

Complete Sentence: But you have to read the book to find out more about them.

Additional Information

• Spot: To see or notice someone or something, which is not fitting in the context of discovering information.

• Locate: To discover the exact position of something, which is more specific and not as suitable here.

• Unlearn: To discard knowledge previously learned, which is not applicable in this context.

Q10. Answer: (c) Intelligent

The solution is in Hindi. Read it online.

Q11. Answer: (c) Vigilant

The solution is in Hindi. Read it online.

Q12. Answer: (c) Illegible handwriting

The correct answer is Option 3.

Key Points

• The primary issue in the sentence is the incorrect use of the word "Allusive."

• "Allusive" means referring to or hinting at something, which does not fit the context of handwriting.

• The correct word should be "Illegible," which means not clear enough to be read.

• Thus, the sentence should read "Illegible handwriting creates a poor impression."

Therefore, the correct answer is Option 3.

Correct Sentence: "Illegible handwriting creates a poor impression."

Additional Information

• Option 1: "Legal handwriting" – This option is incorrect because "legal" pertains to the law and does not fit the context.

• Option 2: "Eligible handwriting" – This option is incorrect because "eligible" means qualified or suitable, which does not describe handwriting.

• Option 4: "Descriptive handwriting" – This option is incorrect because "descriptive" means serving or seeking to describe, which is not relevant in this context.

Q13. Answer: (b) at a more leisurely pace

The correct answer is Option 2.

Key Points

• The primary issue in the sentence is the use of the term "more leisure pace," which is incorrect.

• The correct term is "more leisurely pace," where "leisurely" is the appropriate adjective form.

• The revised phrase "at a more leisurely pace" ensures grammatical correctness and clarity.

Therefore, the correct answer is Option 2.

Correct Sentence: "Although uncountable files stack up on the tables of government officials, they prefer doing their work at a more leisurely pace."

Additional Information

YourMockTest.com — Free Study Material

• Option 1: "at a more leisurely paced" – Incorrect because "paced" should not be used here.
• Option 3: "at a more leisure paced" – Incorrect because "leisure" is a noun and should not be used as an adjective.
• Option 4: "No improvement needed" – Incorrect because the original sentence contains an error.

Q14. Answer: (a) Audacious

The solution is in Hindi. Read it online.

Q15. Answer: (c) Rapid

The solution is in Hindi. Read it online.

Q16. Answer: (d) privilege

The solution is in Hindi. Read it online.

Q17. Answer: (a) typically built

The solution is in Hindi. Read it online.

Q18. Answer: (d) Revoke

The solution is in Hindi. Read it online.

Q19. Answer: (d) Minute

The solution is in Hindi. Read it online.

Q20. Answer: (d) writing

The solution is in Hindi. Read it online.

Q21. Answer: (d) by Ramesh affected

The correct answer is Option 4.

Key Points

• The primary issue in the sentence is the incorrect usage of the word "effected."
• The word "effected" means brought about or caused, which is incorrect in this context.
• The correct word should be "affected," which means influenced or had an impact on.
• Thus, the correct phrase should be "by Ramesh affected" to ensure proper meaning and grammatical correctness.

Therefore, the correct answer is Option 4.

Correct Sentence: "The housing loan taken by Ramesh affected his daily expenses adversely."

Additional Information

• Option 1: "of Ramesh effected" – This is incorrect because "effected" is not the correct word in this context, and "of Ramesh" is not the proper preposition.
• Option 2: "for Ramesh effected" – This is incorrect because "effected" is not the correct word in this context, and "for Ramesh" is not the proper preposition.
• Option 3: "from Ramesh effected" – This is incorrect because "effected" is not the correct word in this context, and "from Ramesh" is not the proper preposition.

Q22. Answer: (a) procession

The solution is in Hindi. Read it online.

Q23. Answer: (a) Rachit had some important work and so he cancelled the show tickets for everyone.

The solution is in Hindi. Read it online.

Q24. Answer: (b) Wolrd

The solution is in Hindi. Read it online.

Q25. Answer: (d) Stopped work for the day

The solution is in Hindi. Read it online.

Q26. Answer: (a) Father's father

Decoding symbols:

A is				
Symbol	•	–	×	÷

YourMockTest.com — Free Study Material

Meaning	Mother	Brother	Husband	Father
to B				

Given: K × Q + R − S ÷ L'

K × Q → K is the husband of Q.

Q + R → Q is the mother of R.

R − S → R is the brother of S.

S ÷ L → S is the father of L.

Thus, K is L's paternal grandfather or father's father.

Hence, the correct answer is "Option 1"

Q27. Answer: (a) 32 B 8 D 160 A 2 C 42

Decoding symbols:

Letter	A	B	C	D
Stands For	÷	×	•	–

Required resultant: 218

So, checking each option one by one

Option 1) 32 B 8 D 160 A 2 C 42 => 32 × 8 – 160 ÷ 2 + 42

=> 32 × 8 – 160 ÷ 2 + 42

=> 32 × 8 – 80 + 42

=> 256 + 42 – 80

=> 298 - 80

=> 218

Option 2) 32 A 8 D 160 B 2 C 42 => 32 ÷ 8 – 160 × 2 + 42

=> 32 ÷ 8 – 160 × 2 + 42

=> 4 – 160 × 2 + 42

=> 4 + 42 – 320

=> 46 - 320

=> -274

Option 3) 32 B 8 D 160 C 2 A 42 => 32 × 8 – 160 + 2 ÷ 42

=> 32 × 8 – 160 + 2 ÷ 42

=> 32 × 8 – 160 + 0.04

=> 256 +0.04 - 160

=> 256.04 - 160

=> 196.04

Option 4) 32 C 8 D 160 A 2 B 42 => 32 + 8 – 160 ÷ 2 × 42

=> 32 + 8 – 160 ÷ 2 × 42

=> 32 + 8 – 80 × 42

=> 32 + 8 – 3360

=> 40 - 3360

=> -3320

Hence, "Option 1" is the correct answer.

Q28. Answer: (b) Two

Given word: 'DOCUMENTARY'

After arranged in alphabetical order:

Alphabets	D	O	C	U	M	E	N	T	A	R	Y
Alphabetical order	A	C	D	E	M	N	O	R	T	U	Y

Now,

there are Two alphabets "M" and "Y" that will remain unchanged if each of the letters in the word 'DOCUMENTARY' is arranged in English alphabetical order.

Hence, the correct answer is "Option 2".

Q29. Answer: (b) 173

Given Equation: 14 B 11 D 22 C 328 A 8 = ?

BODMAS Rule:

Decoding the given information:

Alphabet	A	B	C	D
Meaning	÷	×	•	•

Now replacing the sign from left to right using BODMAS Rule, we get:

=> 14 × 11 - 22 + 328 ÷ 8 = ?

=> 14 × 11 - 22 + 41 = ?

=> 154 - 22 + 41 = ?

=> 195 - 22 = 173.

Hence, the correct option is "Option 2".

Q30. Answer: (d) Fruit - Seed

The logic followed here is:

Logic: Part-Whole Relationship.

Here,

Flower : Petal → Petal is a part of a Flower.

Similarly,

Fruit : Seed → Seed is a part of a Fruit.

Hence, the correct answer is "Option 4".

Q31. Answer: (c) EBL

The logic followed here is:

Hence, "Option 3" is the correct answer.

Q32. Answer: (c) LFD : PJH

The logic followed here is:

VPN : ZTR

And,

SMK : WQO

So checking each option one by one:

Option 1) HDB : MIG

Option 2) PMK : TOL

Option 3) LFD : PJH

Option 4) KFD : OJK

Thus, out of all the options "LFD : PJH" follows the same logic as given.

Hence, "Option 3" is the correct answer.

Q33. Answer: (a) 24

According to the given information,

Thus, according to the given codes '24' is the code for the word 'create'.

Hence, the correct answer is "Option 1".

Q34. Answer: (b) [figure]

The correct mirror image of the given figure is:

Hence, the correct answer is "Option 2".

YourMockTest.com — Free Study Material

Q35. Answer: (b) [figure]

The logic followed here is:

1) First box series → Corner elements shift clockwise and the rest elements shift downward clockwise direction.

2) Second box series → Top and bottom row elements shift anticlockwise and the center element is replaced by new element.

Thus, the final series is:

Hence, "Option 2" is the correct answer.

Q36. Answer: (d) 12

The number of quadrilaterals in the give figure are shown below:

Thus, as marked there are a total of 12 quadrilaterals.

Hence, "Option 4" is the correct answer.

Q37. Answer: (b) Tuesday

Given: 23 June 2008 was Monday.

Now,

2008 to 2020 = 12 Years (9 Ordinary Years and 3 Leap Years).

And, In 12 Years = 3 Leap Years and 9 Ordinary Years.

So, 3 Leap Years have 6 odd days,

And, 9 Ordinary Years have 9 odd days.

Total odd days = 6 + 9 = 15.

15 odd days → 15/7 = 2 weeks and 1 odd day.

then, 23 June 2020 will be Monday + 1 = Tuesday.

Hence, the correct answer is "Option 2".

Q38. Answer: (c) HIMQX

The logic followed here is:

Option 1) EFINU

Option 2) JKNSZ

Option 3) HIMQX

Option 4) BCFKR

Thus, out of all the options "HIMQX" is the odd one out.

Hence, "Option 3" is the correct answer.

Q39. Answer: (c) 457

The logic followed here is:

Hence, "Option 3" is the correct answer.

Q40. Answer: (d) WOM

The logic followed here is:

Hence, "Option 4" is the correct answer.

Q41. Answer: (b) 110

The logic followed here is:

Hence, "Option 2" is the correct answer.

Q42. Answer: (a) Both conclusions (I) and (II) follow.

The least possible Venn diagram for the given statements is as shown below :

Conclusions:

I. Some stones are trees → Follow (As all trees are stones. As all trees comes in stones, therefore it is true.)

II. All houses are rocks → Follow (As all houses are trees, all trees are stones and all stones are rocks. As whole houses comes in trees which which whole comes in stones which whole comes in rocks, therefore it is true.)

Therefore Here, Both conclusions (I) and (II) follow.

Hence, the correct answer is "Option 1"

YourMockTest.com — Free Study Material

Q43. Answer: (d) 25

The logic follows here is:

Logic: (Number of letters in the word)² = Code.

'DIVERT' is coded as '36'

→ DIVERT has 6 letters, so $6^2 = 36$

'DOLDRUMS' is coded as '64'

→ DOLDRUMS has 8 letters, so 82 = 64

Similarly, for 'DOGMA'

→ DOGMA has 5 letters, so 52 = 25.

So, 'DOGMA' will be coded as '25'.

Hence, the correct answer is "Option 4".

Q44. Answer: (d) 56

The logic followed here is:

Logic: 1st number ÷ 4 = 2nd number.

Now,

For, 92 : 23

=> 92 ÷ 4 = 23.

For, 136 : 34

=> 136 ÷ 4 = 34.

Similarly, for 224 : ?

=> 224 ÷ 4 = 56.

Hence, the correct answer is "Option 4".

Q45. Answer: (a) [figure]

The correct mirror image of the given figure is:

Hence, the correct answer is "Option 1".

Q46. Answer: (c) [figure]

The correct mirror image of the given figure is:

Hence, the correct answer is "Option 3".

Q47. Answer: (c) (9, 3, 90)

The logic followed here is:

Logic: $(\text{1st number})^2 + (\text{2nd number})^2 = \text{3rd number}$.

Now,

For, 5, 4, 41

=> $(5^2) + (4^2) = 25 + 16 = 41$.

For, 7, 2, 53

=> $(7^2) + (2^2) = 49 + 4 = 53$.

Similarly, for (9, 3, 90)

=> $(9^2) + (3^2) = 81 + 9 = 90$.

Hence, the correct answer is "Option 3".

Q48. Answer: (c) 15 and 19

Given : $15 \times 5 - 75 + (300 \div 6) + 3 \times 19 = 115$

According to the question, after interchanging the numbers :

Option 1) 6 and 3

$15 \times 5 - 75 + (300 \div 6) + 3 \times 19 = 115$ => $15 \times 5 - 75 + (300 \div 3) + 6 \times 19 = 115$

=> $15 \times 5 - 75 + (300 \div 3) + 6 \times 19 = 115$

=> $15 \times 5 - 75 + 100 + 6 \times 19 = 115$

=> 75 + 100 + 114 - 75 = 115

=> 289 - 75 = 115

=> 214 ≠ 115 (LHS ≠ RHS)

Option 2) 6 and 5

15 × 5 − 75 + (300 ÷ 6) + 3 × 19 = 115 => 15 × 6 − 75 + (300 ÷ 5) + 3 × 19 = 115

=> 15 × 6 − 75 + (300 ÷ 5) + 3 × 19 = 115

=> 15 × 6 − 75 + 60 + 3 × 19 = 115

=> 90 + 60 + 114 - 75 = 115

=> 264 - 75 = 115

=> 189 ≠ 115 (LHS ≠ RHS)

Option 3)15 and 19

15 × 5 − 75 + (300 ÷ 6) + 3 × 19 = 115 => 19 × 5 − 75 + (300 ÷ 6) + 3 × 15 = 115

=> 19 × 5 − 75 + (300 ÷ 6) + 3 × 15 = 115

=> 19 × 5 − 75 + 50 + 3 × 15 = 115

=> 95 + 45 + 50 - 75 = 115

=> 190 - 75 = 115

=> 115 = 115 (LHS = RHS)

Option 4) 15 and 6

15 × 5 − 75 + (300 ÷ 6) + 3 × 19 = 115 => 6 × 5 − 75 + (300 ÷ 15) + 3 × 19 = 115

=> 6 × 5 − 75 + (300 ÷ 15) + 3 × 19 = 115

=> 6 × 5 − 75 + 20 + 3 × 19 = 115

=> 30 + 20 + 57 - 75 = 115

=> 107 - 75 = 115

=> 32 ≠ 115 (LHS ≠ RHS)

Hence, "Option 3" is the correct answer.

Q49. Answer: (a) [figure]

The correct mirror image of the given figure is:

Hence, the correct answer is "Option 1".

Q50. Answer: (b) [figure]

The figure which will look like the paper when unfolded is shown below:

Thus, option Figure 2 will look like the paper when unfolded.

Hence, "Option 2" is the correct answer.

Q51. Answer: (b) 2,590

Given:

Total votes polled = 8,750

Percentage of invalid votes = 20%

Percentage of votes candidate A gets = 63%

Formula used:

Valid votes = Total votes - Invalid votes

Votes for candidate B = Valid votes - Votes for candidate A

Calculation:

Invalid votes = 20% of 8,750

=> Invalid votes = 0.20 × 8,750 = 1,750

Valid votes = 8,750 - 1,750

=> Valid votes = 7,000

Votes for candidate A = 63% of 7,000

=> Votes for candidate A = 0.63 × 7,000 = 4,410

Votes for candidate B = Valid votes - Votes for candidate A

=> Votes for candidate B = 7,000 - 4,410 = 2,590

Therefore The correct answer is option (2).

YourMockTest.com — Free Study Material

Q52. Answer: (c) 11.54 km/hr

Given:

A cyclist rides 10 km at an average speed of 15 km/hr and then the next 15 km at an average speed of 10 km/hr.

Formula used:

Average Speed = Total Distance / Total Time

Calculation:

First part:

Distance1 = 10 km

Speed1 = 15 km/hr

Time1 = Distance1 / Speed1

=> Time1 = 10 / 15

=> Time1 = 2/3 hr

Second part:

Distance2 = 15 km

Speed2 = 10 km/hr

Time2 = Distance2 / Speed2

=> Time2 = 15 / 10

=> Time2 = 1.5 hr

Total Distance = Distance1 + Distance2

=> Total Distance = 10 + 15

=> Total Distance = 25 km

Total Time = Time1 + Time2

=> Total Time = 2/3 + 1.5

=> Total Time = 2/3 + 3/2

=> Total Time = 4/6 + 9/6

=> Total Time = 13/6 hr

Average Speed = Total Distance / Total Time

=> Average Speed = 25 / (13/6)

=> Average Speed = 25 × 6/13

=> Average Speed = 150/13

=> Average Speed ≈ 11.54 km/hr

Therefore The correct answer is option (3).

Q53. Answer: (a) 36

Given:

The sum of the digits of a two-digit number is 9. If the digits are reversed, then the number is increased by 27.

Formula used:

Let the two-digit number be 10x + y, where x and y are the digits.

x + y = 9

When digits are reversed, the number becomes 10y + x

10y + x = (10x + y) + 27

Calculation:

10y + x = 10x + y + 27

=> 10y + x - y - 10x = 27

=> 9y - 9x = 27

=> y - x = 3

Since x + y = 9, add both the equations,

=> y = 6

=> x = 3

The number is 10x + y = 10×3 + 6 = 36

Therefore The correct answer is option (2).

YourMockTest.com — Free Study Material

Q54. Answer: (d) 66.67%

Given:

The vendor uses weights that are 19% less than true weights and makes a profit of 35% on the selling price.

Step 1: Find the effective weight he is using.

Weight used = 100% - 19% = 81% of the true weight.

Step 2: To find the effective profit due to reduced weight:

Effective increase in price due to reduced weight = (100 / 81) - 1 = (100 - 81) / 81 = 19 / 81 = 0.2346 or 23.46%.

Step 3: Now, calculate the total profit.

Total profit = Profit due to reduced weight + Actual profit

Total profit = 23.46% + 35% + (23.46% × 35%) / 100

Total profit = 23.46 + 35 + (23.46 × 35) / 100

Total profit = 23.46 + 35 + 8.211

Total profit = 66.671%

Therefore The net gain percentage is 66.67% (rounded off to 2 decimal places).

Q55. Answer: (d) 33

Given:

55 workers can finish a work in 16 days.

Time required to finish the same work = 10 days

Formula used:

Work = Number of Workers × Number of Days

Calculation:

Let the number of additional workers required be x.

Total work = 55 × 16

=> Total work = 880

New number of workers required to finish the work in 10 days = 880 / 10

=> New number of workers required = 88

Additional workers required = 88 - 55

=> Additional workers required = 33

Therefore The correct answer is option (4).

Q56. Answer: (d) Rs. 4,000

Given:

Ram spends 30% of his salary on food, 10% on house rent, 7% on entertainment, and 6% on conveyance.

Savings at the end of the month = Rs. 1,880

Formula used:

Total percentage spent = 30% + 10% + 7% + 6%

Total percentage spent + Savings percentage = 100%

Calculation:

Total percentage spent = 30 + 10 + 7 + 6

=> Total percentage spent = 53%

Savings percentage = 100% - 53%

=> Savings percentage = 47%

Let the monthly salary be x.

Savings = 47% of x

=> 0.47x = 1880

=> x = 1880 / 0.47

=> x ≈ 4000

Therefore The correct answer is option (4).

Q57. Answer: (d) 45.9

Given:

The total number of students in different subjects along with the percentage of girls and boys:

Subjects	Total Students	Girls %
Mathematics	840	40
Chemistry	220	70
Physics	450	30
Biology	200	80

Formula used:
Total girls = (Percentage of girls / 100) × Total students in each subject
Percentage of girls in the college = (Total girls / Total students) × 100
Calculation:
Total students = 840 + 220 + 450 + 200 = 1710
Girls in Mathematics = (40/100) × 840 = 336
Girls in Chemistry = (70/100) × 220 = 154
Girls in Physics = (30/100) × 450 = 135
Girls in Biology = (80/100) × 200 = 160
Total girls = 336 + 154 + 135 + 160 = 785
Percentage of girls = (785 / 1710) × 100 ≈ 45.9%
Therefore The percentage of girl students in the college is approximately 45.9%.

Q58. Answer: (b) 315

Shortcut Trick
Ratio of Height to Distance is constant for both objects due to the law of reflection.
Height of Man / Distance of Man = Height of Tower / Distance of Tower
1.5 / 0.5 = Height / 105
3 = Height / 105
Height = 105 × 3 = 315 m
Therefore The correct answer is 315 m.
Alternate Method
Given:
Height of man (AB) = 1.5 m
Distance of man from mirror (BM) = 0.5 m
Distance of tower from mirror (MD) = 105 m
Let height of tower (CD) = h m
Formula used: Angle of incidence = Angle of reflection, making ΔABM similar to ΔCDM (AA similarity).
Mirror (M)
A (Man)
B
1.5m
C (Tower)
D
h = ?
0.5m
105m
θ
θ
Calculations:
In ΔABM and ΔCDM:
angle ABM = angle CDM = 90° (Vertical objects)
angle AMB = angle CMD (Laws of reflection: Angle of incidence = Angle of reflection)
=> ΔABM ~ ΔCDM (By AA similarity criterion)
=> AB / CD = BM / MD

=> 1.5 / h = 0.5 / 105

=> h = (1.5 × 105) ÷ 0.5

=> h = 3 × 105

=> h = 315 m

Therefore The correct answer is 315 m.

Additional Information

Law of Reflection

When light reflects off a surface, the angle of incidence is equal to the angle of reflection ($\theta_i = \theta_r$).

AA Similarity Criterion

If two angles of one triangle are equal to two angles of another triangle, the triangles are similar and their corresponding sides are proportional.

Shadow Problems

Similar to mirror problems, the ratio of (Height / Shadow Length) is constant for all vertical objects at the same time of day.

Q59. Answer: (b) 35%

Given:

The pie chart shows the distribution of overseas tourists across four locations:

• Agra = 15%

• Amritsar = 30%

• Konark = 35%

• Kashi = 20%

Calculation:

The percentage of tourists who went to Agra and Kashi:

=> Percentage = Agra + Kashi

=> Percentage = 15% + 20%

=> Percentage = 35%

Therefore 35% of tourists went to Agra and Kashi.

Q60. Answer: (a) 2 : 1

Given:

The family saves Rs. 8,000 per month.

From the pie chart:

• Angle for savings = 60°

• Angle for food = 120°

Formula used:

The expenditure on different heads is proportional to the angles in the pie chart. Therefore, we can use the ratio of the angles to find the ratio of expenditures.

Calculation:

Let the total monthly income be X.

Savings = (60° / 360°) × X = Rs. 8,000

=> (1/6) × X = ???8,000

=> X = Rs. 8,000 × 6 = Rs. 48,000 (Total monthly income)

Expenditure on food = (120° / 360°) × Rs. 48,000

=> Expenditure on food = (1/3) × Rs. 48,000 = Rs. 16,000

Ratio:

Expenditure on food : Savings = Rs. 16,000 : Rs. 8,000 = 2:1

Therefore The ratio of expenditure on food to that on savings is 2:1.

Q61. Answer: (d) 15%

Given:

Principal (P) = Rs. 2,430

Simple Interest (SI) = Rs. 1,093.50

Time (t) = 3 years

Formula used:

SI = P × r × t / 100

Where, r = rate of interest per annum

Calculations:

1,093.50 = 2,430 × r × 3 / 100

=> 1,093.50 = 7,290 × r / 100

=> 1,093.50 = 72.90 × r

=> r = 1,093.50 / 72.90

=> r = 15%

Therefore The correct answer is option (4).

Q62. Answer: (d) 27.72 litres

Given:

Diameter of the cylindrical cup (d) = 7 cm

Height of tea in the cup (h) = 4 cm

Number of patients = 180

π = 22/7

Formula used:

Volume of a cylinder (V) = $\pi r^2 h$

Where, r = radius of the base of the cylinder

Calculations:

Radius (r) = d/2 = 7/2 = 3.5 cm

Volume of tea for one patient = V = (22/7) × $(3.5)^2$ × 4

=> V = (22/7) × 12.25 × 4

=> V = (22/7) × 49

=> V = 154 cm^3

Total volume of tea for 180 patients = 154 × 180

=> Total volume = 27720 cm^3

Since 1 litre = 1000 cm^3

Total volume in litres = 27720 / 1000

=> Total volume = 27.72 litres

Therefore The correct answer is option 4.

Q63. Answer: (a) 2

Given:

8^6 + 1 when divided by 7

Formula used:

8 ≡ 1 (mod 7)

Calculation:

8^6 + 1 when divided by 7:

=> 8^6 mod 7 = 1^6 mod 7 = 1

=> 1+ 1 = 2

Therefore The remainder is 2.

Q64. Answer: (c) 50 cm

Given:

A cuboidal water purifier can carry 10 litres of water. Its breadth is (1)/(5) of its height and length is (1)/(3) of the sum of the breadth and height.

Formula used:

Volume of cuboid = length × breadth × height

1 litre = 1000 cm^3

Calculations:

Volume = 10 litres = 10 × 1000 cm^3 = 10000 cm^3

YourMockTest.com — Free Study Material

Let height = h cm
Breadth = (1/5)h cm
Length = (1/3)(h + (1/5)h) cm
=> Length = (1/3)(6h/5) cm
=> Length = 2h/5 cm
Volume = length × breadth × height
=> 10000 = (2h/5) × (h/5) × h
=> 10000 = ($2h^3$)/(25)
=> 10000 × 25 = $2h^3$
=> 250000 = $2h^3$
=> h^3 = 125000
=> h = cbrt125000
=> h = 50 cm
Therefore The correct answer is option 3.

Q65. Answer: (c) Rs. 32 crores

Given:
Income of Company A (2014) = Rs. 40 crores
Profit percentage = 25%
Formula used:
Profit% = (R - E)/E × 100
Where R = Revenue, E = Expenditure
Calculation:
Profit% = (R - E)/E × 100
=> 25 = (40 - E) / E × 100
=> E = (40 - E) × 4
=> E = 160 - 4E
=> 5E = 160
=> E = 160 / 5 = 32 crores
Therefore The expenditure of Company A in 2014 is Rs. 32 crores.

Q66. Answer: (a) √61

Given:
Length of common internal tangent (L) = 6 units
Radius of the first circle (r1) = 2 units
Radius of the second circle (r2) = 3 units
Formula used:
For two circles with radii r1 and r2, and the length of the common internal tangent L, the distance d between their centers can be given by:
√(d^2 - (r1 + r2)²) = L
Calculation:
√(d^2 - (2 + 3)²) = 6
=> √(d^2 - 25) = 6
=> √(d^2 - 25) = 6
=> (d^2 - 25) = 6^2
=> (d^2 - 25) = 36
=> d^2 = 36 + 25
=> d = √61
Therefore The correct answer is option 1.

Q67. Answer: (b) (5 √2-4)/4

Given:
If tan A = √2 - 1

Formula used:
tan A = sin A / cos A
sin A cos A = 1/2 sin 2A
Calculation:
If tan A = √2 - 1, then
sin A / cos A = √2 - 1
Let sin A = x and cos A = y, then
x / y = √2 - 1
=> x = y(√2 - 1)
=> $x^2 + y^2 = 1$
Substitute x = y(√2 - 1)
=> $(y(\sqrt{2} - 1))^2 + y^2 = 1$
=> $y^2(\sqrt{2} - 1)^2 + y^2 = 1$
=> $y^2(2 - 2\sqrt{2} + 1) + y^2 = 1$
=> $y^2(3 - 2\sqrt{2}) + y^2 = 1$
=> $y^2(4 - 2\sqrt{2}) = 1$
=> $y^2 = 1 / (4 - 2\sqrt{2})$
=> $y = 1 / \sqrt{(4 - 2\sqrt{2})}$
Now, sin A = y(√2 - 1)
sin A cos A = 1/2 sin 2A
sin 2A = 2 sin A cos A
Substitute sin A and cos A
=> sin 2A = 2 × (y(√2 - 1)) × y
=> sin 2A = 2 × (√2 - 1) / √(4 - 2√2)
sin A cos A + tan A = sin A cos A + √2 - 1
=> sin A cos A + tan A = 1/2 sin 2A + √2 - 1
=> sin A cos A + tan A = (√2 - 1) / √(4 - 2√2) + √2 - 1
After solving, we get:
=> sin A cos A + tan A = (5√2 - 4) / 4
Therefore The correct answer is option 2.

Q68. Answer: (b) 12 km

Given:
The person is 30 minutes late when traveling at 3 km/h.
The person is 30 minutes early when traveling at 4 km/h.
Formula used:
Time taken at 3 km/h: T + 1/2 = D / 3
Time taken at 4 km/h: T - 1/2 = D / 4
Calculation:
From equation (1): T = (D / 3) - 1/2
From equation (2): T = (D / 4) + 1/2
Equating both: (D / 3) - 1/2 = (D / 4) + 1/2
=> (4D - 3D) / 12 = 1
=> D / 12 = 1
=> D = 12
Therefore The distance to the destination is 12 km.

Q69. Answer: (c) 118 years

Given:
Four years ago, Ravi was four times as old as Kavya.
Seven years from now, Ravi will be three times as old as Kavya.
Formula used:

Let Ravi's present age be R years and Kavya's present age be K years.
Four years ago: R - 4 = 4(K - 4)
Seven years from now: R + 7 = 3(K + 7)
Calculations:
R - 4 = 4(K - 4)
=> R - 4 = 4K - 16
=> R = 4K - 12
R + 7 = 3(K + 7)
=> R + 7 = 3K + 21
=> R = 3K + 14
Equating the two expressions for R:
4K - 12 = 3K + 14
=> 4K - 3K = 14 + 12
=> K = 26
Substituting K in R = 4K - 12:
R = 4 × 26 - 12
=> R = 104 - 12
=> R = 92
Sum of their present ages:
R + K = 92 + 26
=> R + K = 118
Therefore The correct answer is option 3.

Q70. Answer: (d) 360 cm2

Given:
Radius (r) = 48 cm
Length of the arc (l) = 15 cm
Formula used:
Area of the sector (A) = 1/2 × r × l
Calculations:
A = 1/2 × 48 × 15
=> A = 1/2 × 720
=> A = 360 cm²
Therefore The correct answer is option (4).

Q71. Answer: (a) 25(π - 2)

Given:
A rectangle with the largest area is cut out of a circle with radius 5 units.
Formula used:
Area of circle = πr²
Area of largest rectangle in a circle = 2r²
Calculation:
Radius (r) = 5 units
Area of circle = π × 5²
=> Area of circle = 25π
Area of largest rectangle = 2 × 5²
=> Area of largest rectangle = 50
Area of remaining portion = Area of circle - Area of largest rectangle
=> Area of remaining portion = 25π - 50
=> Area of remaining portion = 25(π - 2)
Therefore The correct answer is option (1).

YourMockTest.com — Free Study Material

Q72. Answer: (d) 23 : 25

Given:

Raju has 15% more land than Sonu.

Ramu has 25% more land than Sonu.

Formula used:

If Sonu's land is S, then:

Raju's land = S + 0.15S = 1.15S

Ramu's land = S + 0.25S = 1.25S

Calculation:

We need the ratio of Raju's land to Ramu's land:

Ratio = 1.15S : 1.25S

=> Ratio = 1.15 : 1.25

=> Ratio = 1.151.251.151.251.151.25

=> Ratio = 115125115125115125

=> Ratio = 232523252325

Therefore The correct answer is option (4).

Q73. Answer: (c) 1

Given:

12 ÷ 4 of 3 × 6 + 8 ÷16 of 4 × 8 - 4 ÷ 6 x 9

Formula used:

Order of operations (BODMAS/BIDMAS): Brackets, Orders (i.e. powers and square roots, etc.), Division and Multiplication, Addition and Subtraction

Calculation:

12 ÷ 4 of 3 × 6 + 8 ÷16 of 4 × 8 - 4 ÷ 6 x 9

=> 12 ÷ 12 × 6 + 8 ÷ 64 × 8 - 2/3 × 9

=> 1 × 6 + 1/8 × 8 - 6

=> 6 + 1 - 6

=> 1

Therefore The correct answer is option (3).

Q74. Answer: (a) 108

Given:

P takes half of the number of days required by Q to finish the work.

P and Q together can finish the work in 36 days.

Formula used:

Work done together = 1/P + 1/Q

Calculation:

Let Q alone can finish the work in Q days.

=> P alone can finish the work in Q/2 days.

=> 1/(Q/2) + 1/Q = 1/36

=> 2/Q + 1/Q = 1/36

=> 3/Q = 1/36

=> Q = 36×3

=> Q = 108 days

Therefore The correct answer is option 1.

Q75. Answer: (b) 6√14 cm

Given:

Radius of first circle (r1) = 7 cm

Radius of second circle (r2) = 4 cm

Distance between centers (d) = 25 cm

Formula used:

Length of transverse common tangent (T) = $\sqrt{(d^2 - (r1 + r2)^2)}$

Calculation:

$T = \sqrt{(25^2 - (7 + 4)^2)}$

$\Rightarrow T = \sqrt{(625 - 121)}$

$\Rightarrow T = \sqrt{504}$

$\Rightarrow T = 6\sqrt{14}$ cm

Therefore The correct answer is option 2.

Q76. Answer: (b) Lucknow

The correct answer is Lucknow.

Key Points

• Bhatkhande Music Institute is located in Lucknow, Uttar Pradesh, it is one of the prominent institutions for music education in India.

• The institute was founded by the renowned musicologist Pandit Vishnu Digambar Paluskar and is named after Pandit Vishnu Narayan Bhatkhande, a key figure in Indian classical music.

• It offers courses in various forms of Indian classical music, including Hindustani and Carnatic styles.

Additional Information

• Chennai:

• Chennai is often referred to as the "Cultural Capital of India" and is a significant hub for Carnatic music, one of the two major forms of Indian classical music.

• The city hosts the famous Margazhi Festival, a month-long celebration of classical music and dance, attracting artists from all over India and beyond.

• Notable institutions for music education include the Madras Music Academy, which has played a vital role in promoting Carnatic music.

• Chennai has produced numerous legendary musicians, such as M.S. Subbulakshmi, Lata Mangeshkar, and Ilaiyaraaja, who have made significant contributions to Indian music.

• Madurai:

• Madurai is known for its rich cultural heritage and has a strong association with Carnatic music and traditional arts.

• The city hosts several music festivals and cultural events, including the Chittirai Thiruvizha, which features performances by local musicians.

• Thirumalai Nayakkar Palace in Madurai often hosts cultural programs that showcase classical music and dance.

• The region is famous for producing talented musicians, including S. P. Balasubrahmanyam, a celebrated playback singer and music director.

• Surat:

• Surat is known for its vibrant music scene, particularly in Ghazal and Sugam Sangeet (light music).

• The city hosts cultural festivals that often include performances by local artists, showcasing a blend of traditional and contemporary music.

• Surat has produced notable musicians and singers, contributing to the thriving music culture in Gujarat and beyond.

• The presence of various music schools and institutions in Surat helps in nurturing local talent and promoting musical traditions.

Q77. Answer: (b) The musical instrument Kamaicha is majorly used by the ‘Manganiar’ Community of Manipur as a popular accomp...

The correct answer is Option 2.

Key Points

• The Kamaicha is a traditional string instrument associated primarily with the Manganiar community, but it originates from Rajasthan, not Manipur.

• The Manganiar community is known for its folk music and often uses the Kamaicha in their performances, but the community of Manipur is more associated with instruments like the pena and dholak.

Additional Information

• Tala is a cyclic arrangement of time units:

• This statement is correct.

• Tala refers to the rhythmic framework used in Indian classical music, consisting of a cycle of beats that organizes the timing of musical phrases.

• Different talas have varying numbers of beats and patterns, creating a rhythmic structure that is fundamental to Indian music.

• A raga is believed to have started as a tribal or folk tune:

YourMockTest.com — Free Study Material

• This statement is correct.

• The concept of raga in Indian classical music has its roots in folk melodies and tribal music, evolving over time into the sophisticated system we recognize today.

• Each raga is associated with specific emotions, times of day, and seasons, and many have folklore or stories associated with them.

• The sruti is a unit of measure or small difference between the various consecutive pitches within a grama or a scale:

• This statement is correct.

• In Indian classical music, sruti refers to the smallest pitch interval recognized in the music system, which is fundamental in defining the nuances of a raga.

• It plays a crucial role in tuning instruments and understanding the microtones in Indian music.

Q78. Answer: (a) 1984

The correct answer is 1984

Key Points

• Bhopal Gas Tragedy:

• It happened on December 3, 1984.

• It was happened due to leakage of Methyl Isocyanate (CH3NCO) from the pesticide plant of Union Carbide (now Dow Chemicals), an MNC, in Madhya Pradesh capital Bhopal.

• It is estimated that about 40 tonnes of gas and other chemicals leaked from the Union Carbide factory.

• Methyl isocyanate is an extremely toxic gas and if its concentration in the air touches 21ppm (parts per million), it can cause death within minutes of inhaling the gas.

• It is one of the worst chemical disasters globally and still continues to have its ill effects on the people of the affected areas.

• After the tragedy, the government of India enacted a Public Liability Insurance Act (1991) that meant to provide immediate relief to victims of accidents involving hazardous industries.

• Under the Act, an environment relief fund was set up to compensate affected people.

Q79. Answer: (d) Rhamnose

The correct answer is the Rhamnose

Key Points

• While all the listed options are carbohydrates, rhamnose doesn't strictly adhere to the classic definition of a carbohydrate.

• The general formula for carbohydrates is (CH2O)n, where n is an integer.

• Rhamnose, however, has a slightly different formula: C6H12O5.

• Rhamnose is often categorized as a non-standard sugar because it has a different structural configuration.

• Rhamnose is important in plant biology and can be involved in the structure of certain polysaccharides, such as rhamnogalacturonan, which is found in pectin.

Additional Information

• Sucrose:

• A disaccharide composed of glucose and fructose.

• Sucrose is commonly known as table sugar and is naturally found in many plants, particularly in sugarcane and sugar beets.

• Fructose:

• A monosaccharide (simple sugar).

• Fructose is often referred to as "fruit sugar" because it is found in many fruits and honey, and it is sweeter than glucose.

• Maltose:

• A disaccharide composed of two glucose units.

• Maltose is commonly found in malted foods and beverages, such as malted milk and beer, and is produced during the fermentation process.

Q80. Answer: (b) 60 min

The correct answer is 60 min

Key Points

• The duration of an international hockey match is typically 60 minutes.

• Before 2019, matches were played for 70 minutes.

• NHL games consist of playtime of 60 Minutes that breaks down into three separate periods.

• A regular game of Hockey consists of three 20-minute periods, with a 15-minute intermission after the first and second periods.

YourMockTest.com — Free Study Material

Additional Information

• Narinder Batra is the President of the International Hockey Federation (FIH).

• The International Hockey Federation(Ice) has 82 member national associations.

• Its headquarters are in Lausanne, Switzerland.

Q81. Answer: (a) The floppy disk icon

The correct answer is the floppy disk icon

Key Points

• The floppy disk icon:

• This is the most common and widely recognized icon for saving files in MS Word.

• Even though floppy disks are no longer in use, the icon remains a familiar symbol for saving documents.

• Clicking on this icon saves the current document to its designated location.

Additional Information

• The undo icon:

• This icon is used to reverse the last action performed in the document. It doesn't directly save the document but can be helpful in undoing accidental changes or mistakes.

• The envelope icon:

• This icon is typically associated with sending the document via email. It doesn't save the document itself but initiates the process of sending it as an email attachment.

• The printer icon:

• This icon is used to print the document on a physical printer. It doesn't save the document but initiates the printing process.

Q82. Answer: (a) Right to elementary education

The correct answer is the Right to elementary education

Key Points

• The Right to Elementary Education (Article 21A) is a Fundamental Right guaranteed to all persons in India, including both Indian citizens and foreigners.

• It ensures that children between the ages of 6 and 14 have the right to free and compulsory education.

• Fundamental Rights available only to the citizens of India

• Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth. (Article 15)

• Equality of opportunity in matters of public employment. (Article 16)

• Protection of the six fundamental rights of freedom mentioned. (Article 19)

• Protection of language, script and culture of minorities. (Article 29)

• Right of minorities to establish and administer educational institutions. (Article 30)

• Fundamental Rights available only to the foreigners

• Right to life and personal liberty (Article 21)

• Freedom of religion (Article 25)

Q83. Answer: (d) Shiwaliks

The correct answer is option Shivalik.

Key Points

• Shivalik range

• The Shivalik Range, also known as the outer Himalayas, is the outermost range of the Himalayas.

• It features a series of parallel or converging ranges separated by deep valleys, creating a highly dissected topography.

• The Shivaliks run for 2,400 km from the Potwar Plateau to the Brahmaputra valley, with altitudes ranging from 600 to 1500 meters.

• The southern slopes are steep, while the northern slopes are gentler.

• The range is primarily located in India, Nepal, and Bhutan, with parts extending into Tibet, Pakistan, Afghanistan, and Central Asia.

Additional Information

• Dhauladhar Range

• Part of the Lesser Himalayas, located in Himachal Pradesh, India.

• Known for its rugged terrain and snow-covered peaks.

• Pir Panjal Range

YourMockTest.com — Free Study Material

• Part of the Outer Himalayas (or Lower Himalayas).
• Stretches across Jammu and Kashmir, Himachal Pradesh, and northern Pakistan.
• Famous passes include Banihal Pass and Pir Panjal Pass.
• The Jammu-Srinagar railway line passes through this range via the Pir Panjal Tunnel, one of the longest tunnels in India.
• Kanchenjunga
• The third-highest peak in the world, with an elevation of 8,586 meters (28,169 feet).
• Located on the border of Sikkim (India) and Nepal.
• Revered by locals and considered sacred.
• Known for its stunning beauty and challenging climbing routes.

Q84. Answer: (c) Dance

The correct answer is Dance

Key Points

• Rukmini Devi Arundale was a prominent figure in Indian culture, known primarily for her contributions to classical Indian dance, particularly Bharatanatyam.
• She established the Kalakshetra Academy in Chennai, which is renowned worldwide for its training in Bharatanatyam and other classical arts.
• While she was not a professional painter, Rukmini Devi Arundale had a keen interest in art and engaged in various artistic pursuits.
• She often incorporated visual elements into her dance performances, such as creating costumes and set designs.
• Additionally, she was inspired by the artistic traditions of India and integrated them into her dance compositions.
• However, her primary focus and legacy lie in the field of dance, where she played a crucial role in reviving and preserving the rich heritage of Bharatanatyam.
• Her efforts have had a significant impact on the development and popularity of Indian classical dance both nationally and internationally.

Q85. Answer: (c) Only 1, 3 and 4

The correct answer is Only 1, 3, and 4,

Key Points

• Migration is the movement of either people or animals from one area to another.
• Migration can be used for the journey from one place to another or the act of movement.
• There are many economic, social, and physical reasons why people emigrate and they can usually be classified into push and pull factors.
• Pull factors “pull” people to a new home and include things like better opportunities.
• Good opportunities for work, better health services, and Higher wages are the pull factors of migration.

Additional Information

• Higher wages typically increase the quantity of labor supplied by workers, while potentially reducing the quantity demanded by employers.
• United Nations Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families: This treaty aims to protect migrant workers' rights, ensuring their dignity and humane conditions.
• Push factors “push” people away from their homes and include things like war. Poverty is the Push factor of migration.

Hence, Better opportunities for work, health facilities, and higher wages are the pull factors of migration.

Q86. Answer: (d) Only a

The correct answer is Only a.

Key Points

• A public good is a commodity or a service provided to the Citizen without any intention of making a profit out of it.
• Electricity is not provided free. People pay for the service or the unit of electricity they consume.
• National Defence, Light House, and Public Parks are examples of Public goods as people are not charged for them by the government.
• Public goods are non-excludable, individuals may benefit without contributing to their provision, leading to the "free rider problem." This can result in underfunding and insufficient supply of these goods.

Additional Information

Type of Goods	Characteristics	Examples

Public Goods	• Non-excludable • Non-rivalrous	National defense, public parks, street lighting
Private Goods	• Excludable • Rivalrous	Food, clothing, electronics
Mixed Goods	• Some aspects are non-excludable • Some aspects are rivalrous	Education, healthcare, public transportation

Q87. Answer: (c) Hindustan Socialist Republican Association

The correct answer is the Hindustan Socialist Republican Association.

Key Points

• Hindustan Socialist Republican Association (HSRA):

• Hindustan Republic Association at a historic meeting in the ruins of Ferozshah Kotla in Delhi was converted into Hindustan Socialist Republican Association in September 1928.

• Under the leadership of Chandra Shekhar Azad, the name of HRA was changed to Hindustan Socialist Republican Association (HSRA).

• The participants included Bhagat Singh, Sukhdev, Bhagwaticharan Vohra from Punjab and Bejoy Kumar Sinha, Shiv Verma, and Jaidev Kapur from the United Provinces.

• The HSRA decided to work under a collective leadership and adopted socialism as its official goal.

Additional Information

• Bharat Naujawan Sabha was established in 1926 by revolutionary leaders like Bhagat Singh and Sukhdev.

• The organization aimed to awaken the youth of India against British colonial rule and instill revolutionary ideas, promoting socialism and the rights of workers.

• Hindustan Republican Association/Army:

• The HRA was founded in October 1924 in Kanpur by Ramprasad Bismil, Jogesh Chandra Chatterjee and Sachin Sanyal, with an aim to organise an armed revolution to overthrow the colonial government and establish in its place the Federal Republic of United States of India whose basic principle would be an adult franchise.

• The Home Rule Society was founded in 1916 by Bal Gangadhar Tilak and Annie Besant.

• The primary objective of the society was to secure self-rule for India through constitutional means.

Q88. Answer: (d) Pressing the ‘Enter’ key or using the scroll wheel

The correct answer is Pressing the 'Enter' key or using the scroll wheel.

• Pressing the Enter key while in a table cell typically moves the cursor to the next line within the same cell.

• When not in a table, pressing Enter creates a new paragraph. This is useful for formatting text and separating sections.

• If you need to start a new line without creating a new paragraph, you can use Shift + Enter. This inserts a line break instead of a paragraph break.

• The layout and functions of the Enter key were standardized with the introduction of different keyboard layouts, such as QWERTY, which is widely used today.

Additional Information

• Shift key is used to select a range of continuous cells in an MS Excel worksheet.

• To select a range of cells, use the shift key in combination with any of the movement keys.

• You can also click and hold the left mouse button and drag through the range you want to select.

• • To select all the cells to the right of the active cell in the row, hold down Shift, Cntrl, and press the Right Arrow Key.

• To select all the cells below the active cell in the worksheet, hold down Shift, Cntrl, and press the Down Arrow key.

• To select a single cell simply left-click on it.

• Tab key is used to move the cell cursor from one column to next from the left to right in the MS Excel worksheet.

• The control key is a modifier key that, when pressed in conjunction with another key, performs a special operation in the MS Excel worksheet.

Q89. Answer: (c) Amedeo Avogadro

The correct answer is Amedeo Avogadro.

Key Points

• Equal volumes of different gases containing an equal number of molecules were described by Avogadro. This concept is known as Avogadro's Law.

• Amedeo Avogadro was an Italian scientist whose work laid the foundation for molecular theory and stoichiometry in chemistry.

• Avogadro's Law is a key component of the Ideal Gas Law, which combines several gas laws (Boyle's, Charles's, and Avogadro's laws) into a single equation: PV = nRT.

• Avogadro's number, also known as Avogadro's constant, is defined as 6.022×10^{23} (which can be atoms, molecules, or ions) per mole.

Additional Information

• James Watt

• He improved the steam engine, making it more efficient and vital for the Industrial Revolution.

• He introduced the concept of horsepower to measure engine power.

• John Dalton

• He proposed the atomic theory, stating that all matter is composed of atoms, which are indivisible and unique to each element.

• He established the law of multiple proportions, showing that elements combine in fixed ratios to form compounds.

• Albert Einstein

• He explained the photoelectric effect, which contributed to the development of quantum mechanics and earned him the Nobel Prize in 1921.

• He formulated the theory of relativity, with the equation $E= MC^2$ explaining the relationship between mass and energy.

Q90. Answer: (d) Only 1 and 3

The correct answer is Only 1 and 3.

Key Points

• Akbar introduced the Mansabdari system to organize the military and administration.

• He established Fatehpur Sikri as his capital but later abandoned it due to water shortages.

• Akbar is known for his policy of religious tolerance and founded the Din-i-Ilahi to promote unity among different religions.

• He expanded the Mughal Empire significantly through both diplomacy and warfare, including the conquest of Gujarat and Bengal.

Additional Information

• The ‘Mansab’ is an Arabic word meaning rank position or status of a person.

• Mansabdari was a system in which the rank of a government official was determined.

• Every civil and military officer was given a ‘mansab’. Different numbers which could be divided by ten were used for ranking officers.

• During the early reign of Akbar, the lowest grade was ten and the highest was 5000. Towards the end of the reign, it was raised to 7000.

• Higher Mansabs were given to princes and Rajput rulers who accepted the suzerainty of Akbar.

• the state of Bijapur was one of the most powerful states in South Asia, second to the Mughal Empire, which was conquered in 1686 under Aurangzeb.

Q91. Answer: (c) Madhya Pradesh

The correct answer is Madhya Pradesh.

Key Points

• The Sanchi Stupa was commissioned by Emperor Ashoka in the 3rd century BCE and is one of the oldest stone structures in India.

• The Stupa is known for its hemispherical dome that houses relics of Buddha and is surrounded by ornate gateways (Toranas) symbolizing love, peace, trust, and courage.

• UNESCO (United Nations Educational, Scientific and Cultural Organization) was established in 1945 to promote international collaboration in education, science, and culture.

• UNESCO works to preserve cultural diversity and promotes freedom of expression, with initiatives like World Press Freedom Day celebrated on May 3rd each year.

Additional Information

• There are 43 World Heritage Sites in India. Out of these, 35 are cultural, seven are natural, and one, Khangchendzonga National Park, is of mixed type, listed for both cultural and natural properties.

• India has the sixth-most UNESCO site worldwide.

• The first sites to be listed were the Ajanta Caves, Ellora Caves, Agra Fort, and Taj Mahal, all of which were inscribed in the 1983 session of the World Heritage Committee.

• The headquarters of UNESCO is located in Paris, France, and it serves as a hub for international dialogue on education, science, and cultural matters.

• UNESCO's Global Education Monitoring Report: It publishes the Global Education Monitoring (GEM) Report, which tracks

progress on Sustainable Development Goal 4 (Quality Education) aimed at ensuring inclusive and equitable quality education for all by 2030.

• UNESCO runs the Man and the Biosphere (MAB) Programme, which promotes sustainable development by recognizing Biosphere Reserves worldwide. India has several such reserves, including Sundarbans and Nilgiri.

Q92. Answer: (b) Justice PV Reddi

The correct answer is Justice PV Reddi.

Key Points

• Justice P.V. Reddi was appointed as the Chairman of the Second National Judicial Pay Commission in 2010 to examine and recommend pay structures for judges in the higher judiciary.

• The Commission's primary objective was to assess the working conditions, remuneration, and service conditions of judges, including those in the Supreme Court and High Courts, to ensure adequate compensation and facilities.

• The Commission recommended significant salary increases for judges, including a proposal to enhance their salaries and pensions, addressing disparities compared to other services.

• The findings and recommendations of the Second National Judicial Pay Commission were crucial in improving the morale and working conditions of the judiciary, thus impacting the overall administration of justice in India.

Additional Information

• Establishment: The First National Judicial Pay Commission was established in 1996, and the Second NJPC was constituted in 2010.

• Chairman: The Second NJPC was chaired by Justice P.V. Reddi.

• The primary objective was to review and recommend pay scales, allowances, and service conditions for judges in the higher judiciary (Supreme Court and High Courts).

• Salary Recommendations: The Second NJPC recommended significant salary increases for judges, addressing disparities compared to other civil services.

• Judicial Independence: The NJPC aimed to enhance the independence of the judiciary by ensuring competitive compensation for judges.

• Implementation: The recommendations of the Second NJPC were implemented in 2016, leading to revised salary structures.

• Impact on Judiciary: The NJPC's recommendations improved the working conditions and morale of judges, thus positively impacting the administration of justice.

• Pension Provisions: The NJPC also addressed pension provisions for retired judges, ensuring financial security post-retirement.

Q93. Answer: (a) Major Dhyan Chand

The correct answer is Major Dhyan Chand.

Key Points

• Major Dhyan Chand (29 August 1905 – 3 December 1979) was an Indian field hockey player widely regarded as the greatest in the history of the sport.

• He was known for his extraordinary goal-scoring feats, in addition to earning three Olympic gold medals, in 1928, 1932, and 1936, during an era where India dominated field hockey.

• Known as The Wizard or The Magician of hockey for his superb ball control.

• The Government of India awarded Chand India's third highest civilian honor of Padma Bhushan in 1956.

Additional Information

• MS Dhoni

• Mahendra Singh Dhoni is a former Indian international cricketer and the captain of the Indian national team.

• He was born in Ranchi, Jharkhand.

• He made his ODI debut on 23 December 2004 against Bangladesh.

• He has been the recipient of many awards, including the ICC ODI Player of the Year award the Rajiv Gandhi Khel Ratna award in 2007, the Padma Shri and the Padma Bhushan.

• The Indian Territorial Army conferred the honorary rank of Lieutenant Colonel to Mahendra Singh Dhoni on 1 November 2011.

• Kapil Dev

• Kapil Dev is named as "Haryana Hurricane".

• Kapil Dev started his career as a cricketer in 1975. Kapil Dev won the 1983 Cricket World Cup in his captaincy.

• He was also the national cricket coach between October 1999 and August 2000. He retired in 1994.

• Kapil Dev is the first player to take 200 ODI wickets.

• On 11 March 2010, Dev was inducted into the ICC Cricket Hall of Fame.

• Roop Singh

• Roop Singh Bais was an Indian hockey player.

• He was part of the Indian field hockey team, which won gold medals for India at the 1932 and 1936 Olympic Games.

• He was the younger brother of Dhyan Chand.

Q94. Answer: (b) Cassiopeia

The correct answer is Cassiopeia.

Key Points

• Cassiopeia A is a supernova remnant.

• It is notable for being the brightest astronomical radio source in the sky.

• It is the strongest radio source in the sky outside the solar system and was one of the first radio sources to be discovered, in 1947.

• The five brightest stars of Cassiopeia – Alpha, Beta, Gamma, Delta, and Epsilon Cassiopeiae – form the characteristic W-shaped asterism.

• Its brightest star is Alpha Cassiopeiae or Shedar (Arabic for “breast”).

Additional Informatio

• Cygnus

• Cygnus X-1, denoted as Cyg X-1, stands as a celestial marvel in the constellation Cygnus, recognized as the first galactic X-ray source widely acknowledged as a black hole..

• Its discovery in 1971 marked a pivotal moment in astrophysics, and since then, it has continued to captivate researchers worldwide.

• It boasts a remarkable X-ray flux density, reaching 2.3×10^-²³ W/(m²?Hz) or 2.3×10³ jansky.

• Cygnus is non-reusable and is designed to burn up upon re-entry into Earth's atmosphere after delivering cargo to the ISS.

• Orion

• Orion constellation is one of the brightest and best-known constellations in the night sky.

• It lies on the celestial equator.

• Orion has been known since ancient times.

• The constellation is also known as the Hunter, as it is associated with one in Greek mythology.

• It represents the mythical hunter Orion, who is often depicted in star maps as either facing the charge of Taurus, the bull.

• Ursa Major

• The name ";Ursa Major" is Latin for "Greater Bear," and its mythology can be traced back to several ancient cultures.

• In Greek mythology, Ursa Major is associated with the nymph Callisto, who was transformed into a bear and placed in the sky by Zeus.

• Ursa Major has been recognized and represented in various ways by different cultures, including Native American, Hindu, and Chinese traditions.

• The constellation is part of the family of constellations that includes Ursa Minor, Draco, and Boötes.

• Stars in Ursa Major are relatively close to Earth, and some of them are part of the Ursa Major Moving Group, a cluster of stars that share a common motion through space.

Q95. Answer: (c) Prime Minister, Leader of the opposition and Chief Justice of India

The correct answer is Prime Minister, Leader of the opposition and Chief Justice of India.

Key Points

• Appointments to the Election Commission will be made by a panel of the Prime Minister, Leader of the Opposition (leader of the largest opposition party), and Chief Justice of India.

• The court emphasized the need for an impartial and independent Election Commission, free from executive interference, ensuring that the process of appointments is more transparent.

• The judgment was aimed at strengthening the democratic framework by ensuring that those appointed to the Election Commission are unbiased and capable of conducting free and fair elections.

• This ruling is to be followed until Parliament enacts a law that provides a specific procedure for the appointment of Election Commissioners.

• The decision marked a significant moment in ensuring institutional integrity, drawing comparisons with similar reforms in other independent institutions like the Central Vigilance Commission (CVC).

Additional Information

• The Election Commission of India is an autonomous Constitutional Body responsible for administering Union and State election processes in India

• The Election Commission of India came into force on 25th January 1950.

YourMockTest.com — Free Study Material

• Article 324 of the Indian constitution mandates the Election Commission, to conduct elections to the Parliament and the State Legislatures.

• The Election Commission consists of a Chief Election Commissioner and two Election Commissioners.

• The President appoints Chief Election Commissioner and Election Commissioners.

• The body administers elections to the Lok Sabha, Rajya Sabha, and State Legislative Assemblies in India, and the offices of the President and Vice President in the country.

• The secretariat of the commission is located in New Delhi.

• They have a fixed tenure of six years, or up to the age of 65 years, whichever is earlier.

• They enjoy the same status and receive salary and perks as available to Judges of the Supreme Court of India.

• The Chief Election Commissioner can be removed from office only through a process of removal similar to that of a Supreme Court judge for by Parliament.

Q96. Answer: (b) West Bengal

The correct answer is West Bengal.

Key Points

• Vijaya Dashami marks the end of Durga Puja, symbolizing the victory of Goddess Durga over the buffalo demon Mahishasura, representing the triumph of good over evil.

• On this day, idols of Goddess Durga are taken for immersion (Visarjan) in rivers or water bodies, signifying her return to Mount Kailash.

• Women engage in Sindoor Khela, smearing vermillion on each other, a significant ritual that symbolizes the strength and blessings of the Goddess.

• Large processions with music and dance accompany the immersion of idols, and the festival brings together people from various communities, enhancing social unity.

• Vijaya Dashami is a public holiday in West Bengal, with celebrations marked by family gatherings and the exchange of sweets, reflecting the festive spirit.

Additional Information

State	Famous Festival	Significance
Telangana	Bonalu	A festival dedicated to Goddess Mahakali, celebrated with offerings and processions.
Bathukamma	Floral festival where women arrange flowers in a pyramid shape and offer prayers.	
Sammakka Saralamma Jatara	Tribal festival honoring two tribal women goddesses, Sammakka and Saralamma.	
Ugadi	Telugu New Year, marked by traditional food, prayers, and celebrations.	
Ram Navami	Celebrates the birth of Lord Rama with prayers and processions.	
Rajasthan	Gangaur	Celebrated by women for marital bliss, honoring Goddess Gauri (Parvati).
Teej	Festival for women, praying for marital happiness and well-being.	
Pushkar Fair	World-famous camel and livestock fair, along with cultural events.	
Makar Sankranti	Celebrated with kite flying, marking the harvest and transition of the sun.	
Diwali	Festival of lights, celebrated with grandeur across the state.	
Chhattisgarh	Bastar Dussehra	Unique form of Dussehra, celebrated for 75 days in tribal traditions.
Hareli Festival	Harvest festival where farmers worship farm equipment and cows.	

YourMockTest.com — Free Study Material

Madai Festival	Tribal festival celebrated in honor of village deities with dances and rituals.	
Teeja Festival	Similar to Teej, women fast and pray for the well-being of their husbands.	
Chhath Puja	Worship of the Sun God, where devotees offer prayers at riverbanks.	

Q97. Answer: (d) It prescribes a minimum area of 10000 hectares for establishing NIMZs.

The correct answer is It prescribes a minimum area of 10000 hectares for establishing NIMZs.

Key Points

• NIMZs are developed to promote manufacturing and attract investment in the industrial sector, as part of the National Manufacturing Policy, 2011.

• Each NIMZ is a large industrial cluster, spread over a minimum of 5,000 hectares, with integrated infrastructure, including roads, water, and power supply.

• NIMZs aim to increase the share of manufacturing in India's GDP and generate large-scale employment in the sector.

• Industries in NIMZs receive special incentives, such as tax benefits, single-window clearances, and easier compliance with labor laws.

• Some of the approved NIMZs are located in Prakasam (Andhra Pradesh), Medak (Telangana), Aurangabad (Maharashtra), and Dholera (Gujarat).

Additional InformationNIMZ v/s Special Economic Zone

Basis of Difference	NIMZ	SEZ
Legislative Backing	Under the National Manufacturing Policy in 2011	Under the Special Economic Zones Act, 2005
Minimum Area	5000 hectares	10 – 1000 hectares (depending on the sector)
Maximum Area	Not specified	5000 hectares
Income Tax Exemption	To small and medium enterprises	100% for the first 5 years 50% for the next 5 years
Environmental Impact Assessment	Provided by the state government	By the project developer

Q98. Answer: (d) 1993

The correct answer is 1993.

Key Points

• The National Human Rights Commission (NHRC) was established in India on 12 October 1993 under the Protection of Human Rights Act, 1993.

• Its main purpose is to protect and promote human rights, including civil, political, economic, social, and cultural rights guaranteed by the Constitution and international treaties.

• The NHRC consists of a chairperson (who is a retired Chief Justice of India), members of the judiciary, human rights experts, and representatives of minorities and marginalized groups.

• The NHRC investigates violations of human rights, recommends actions to the government, conducts awareness programs, and advises on laws and policies related to human rights.

Additional Information

• The National Human Rights Commission (NHRC) is composed of a Chairperson and other members is as follows.

• Chairman: A person who has been Chief Justice of the Supreme Court, or a Judge of the Supreme Court will be the chairperson of the NHRC.

• First member: Judge of High court

• Second member: Judge of Supreme Court

• Other Two members: Persons having knowledge in the matter of Human rights

• Special Invitee to Statutory Full Commission - ;National Commission for Protection of Child Rights

• Deemed members: Chairpersons of the following commissions:

• National Commission for Minorities

• National Commission for STs

• National Commission for SCs
• National Commission for Women
• National Commission for Backward Classes
• Chief Commissioner for Persons with Disabilities
• Chairperson National Commission for Protection of Child Rights.

Q99. Answer: (a) Eighty-sixth Amendment Act, 2002

The correct answer is the Eighty-sixth Amendment Act, 2002

Key Points

• The Constitution (Eighty-sixth Amendment) Act, 2002 inserted Article 21-A in the Constitution of India
• The 86th amendment Act of 2002 made the right to education as the fundamental right to all the children under the age of 6-14 years by inserting Article 21-A to the constitution.
• It also changed the subject matter of Article 45 in the Directive Principles of State Policy.

Additional Information Other Important Amendment

• | Constitutional Amendment Act | Amended Provisions |

73rd Amendment, 1992	**The Amendment provided a Constitutional status to the Panchayati Raj Institutions in India through the insertion of Article 243 to Part IX of the Indian Constitution.**
93rd Amendment, 2006	It allows the government to make special provisions for "advancement of any socially and educationally backward classes of citizens", including their admission in aided or unaided private educational institutions.
87th Amendment, 2003	Readjustment and rationalization of territorial constituencies in the states on the basis of the population figures of the 2001 census.
88th Amendment, 2003	Added provision for service tax (Article 268-A).
89th Amendment, 2003	Created two separate bodies, namely, the National Commission for Scheduled Castes (Article 338) and National Commission for Scheduled Tribes (Article 338-A).

Q100. Answer: (d) AKT Mohun Bagan

The correct answer is AKT Mohun Bagan

Key Points

• ATK Mohun Bagan defeated Bengaluru FC in the final of the Indian Super League 2022-23 on penalties.
• This was their first-ever ISL title.
• ATK Mohun Bagan finished at the top of the league table during the regular season, showcasing their consistent performance and strong squad.
• The team displayed a high level of football in the playoffs, defeating strong opponents like Kerala Blasters FC and Bengaluru FC to reach the final.
• The final against Bengaluru FC was decided by a penalty shootout, where ATK Mohun Bagan's goalkeeper, Amrinder Singh, made crucial saves to secure the victory

Additional Information

• Indian Super League 2022-23
• The 2022-23 Indian Super League (ISL) season was the 9th edition of India's premier football league.
• The final was played on March 18, 2023, at the Jawaharlal Nehru Stadium, Goa.
• The top 4 teams that made it to the playoffs were:
• Hyderabad FC (Champions)
• Kerala Blasters FC (Runners-up)
• Mumbai City FC
• ATK Mohun Bagan FC

More previous year papers and mock tests: **www.yourmocktest.com/pyq**