SSC CHSL 2025 Tier-1 (Held On: 15 Nov, 2025 Shift 1) (Previous Year Paper)

SSC Combined Higher Secondary Level (CHSL) • 2025 • 100 questions • 60 minutes • Answer key and solutions

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ENGLISH LANGUAGE

Q1. Identify the part of the sentence that contains a grammatical error.

A. The movie, B. which you recommended, C. was both interesting D. and entertain.

(a) The movie
(b) which you recommended
(c) was both interesting
(d) and entertain.

Q2. Select the most appropriate synonym of the word: Abrogate

(a) Institute
(b) Enact
(c) Repeal
(d) Approve

Q3. Fill in the blank with the most appropriate phrasal verb: She was so overwhelmed with tasks that she had to ____ some responsibilities to her assistant.

(a) hand out
(b) hand down
(c) hand over
(d) hand in

Q4. Fill in the blank with the most appropriate phrase:

Due to the budget cuts, the organization had to operate strictly _____.

(a) in a nutshell
(b) on a shoestring
(c) with flying colors
(d) under the radar

Q5. Select the most appropriate synonym of the word: EPISTEMIC

(a) Physical
(b) Knowledge-related
(c) Symbolic
(d) Spatial

Directions

Read the following passage and answer the questions based on it:

Mandala art, a term derived from the Sanskrit word for "circle,".Mandalas are mathematical and metaphorical works of art that have captivated people for ages. In essence, a mandala is a circle pattern that represents the cosmos and the individual's journey. The genesis of everything, one's identity, or a heavenly essence are all represented by the design's centre. Complex and often symmetrical patterns spread forth from this hub representing the universe's growth and the continuous flow of life.

Mandalas, which have their roots in both Buddhism and Hinduism, are powerful instruments for spiritual ritual and meditation. In order to symbolise the fleeting nature of life and the rejection of earthly possessions, monks painstakingly create these elaborate patterns out of coloured sand, only to brush them away when finished. Making a mandala has therapeutic benefits in addition to its religious significance. Drawing its geometric patterns in a methodical and repeated manner helps to reduce tension, improve focus, and calm the mind. The act of creating is a form of active meditation that allows the artist to concentrate and attain inner peace.

Q6. What does the term "mandala" mean in Sanskrit?

(a) Artwork
(b) Circle
(c) Meditation
(d) Universe

Q7. What does the center of a mandala represent?

(a) The universe
(b) One’s identity or a heavenly essence
(c) Earthly possessions
(d) The continuous flow of life

Q8. According to the passage, why do monks create mandalas out of coloured sand?

(a) To preserve the artwork
(b) To symbolize the fleeting nature of life
(c) To attract good fortune
(d) To showcase their artistic skills

Q9. What therapeutic benefits are associated with making a mandala?

(a) It increases artistic creativity.
(b) It improves physical health.
(c) It helps reduce tension, and calm the mind.
(d) It helps in building wealth.

Q10. What is the primary purpose of mandalas in Buddhist and Hindu traditions?

(a) To represent artistic expression
(b) To symbolize the cosmos and the individual’s journey
(c) To depict daily life
(d) To showcase geometric patterns

Q11. Which of the following sentences uses the word "close" with the same meaning as in the following sentence?
"Please be sure to close the door when you leave"

(a) She lives very close to the library.
(b) The museum is close to the park.
(c) It’s a good idea to close all the windows before it starts to rain.
(d) He keeps his family photos close to his bed.

Q12. Choose the correctly spelt word:

(a) Jaundice
(b) Jaundise
(c) Joundice
(d) Jaundiece

Q13. Choose the correctly spelt word:

(a) Psychology
(b) Psycology
(c) Psycholoy
(d) Psycholgy

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Q14. Choose the correct meaning of the idiom: Sit on the fence

(a) To be very decisive about a matter
(b) To refuse to give an opinion or take a side
(c) To carefully choose a position
(d) To be in a neutral, relaxed position

Q15. Select the most appropriate antonym of the word: Futile

(a) Useless
(b) Pointless
(c) Effective
(d) Vain

Q16. Choose the correct one-word substitute for:

A person who studies the stars and space

(a) Astrologer
(b) Astronomer
(c) Meteorologist
(d) Geographer

Q17. Choose the correct one-word substitute for:

A person who supports the status quo and is opposed to change

(a) Conservative
(b) Liberal
(c) Reactionary
(d) Progressive

Q18. Select the most appropriate antonym of the word: Garrulous.

(a) Talkative
(b) Loquacious
(c) Quiet
(d) Chatty

Q19. Change the following sentence into the Active form.

The report is expected to be delivered by the committee next week.

(a) The committee is expecting to deliver the report next week.
(b) The committee is expected to deliver the report next week.
(c) The committee expects to deliver the report next week.
(d) The committee will deliver the report next week.

Q20. Select the option that expresses the given sentence in indirect voice. The tour guide said, "We have been walking for hours, but the ruins we have been looking for are just around this corner, and we will be there in a few minutes."

(a) The tour guide said that they had been walking for hours, but the ruins they had been looking for were just around that corner, and they would be there in a few minutes.
(b) The tour guide said that we have been walking for hours, but the ruins we have been looking for are just around this corner, and we will be there in a few minutes.
(c) The tour guide said that they had been walking for hours, but the ruins they had been looking for are just around that corner, and they will be there in a few minutes.
(d) The tour guide said that they were walking for hours, but the ruins they were looking for were just around that corner, and they would be there in a few minutes.

Q21. Choose the most suitable option to replace the highlighted part of the sentence :

The manager was asked to write a report in a quick, detailed and in a thorough manner.

(a) in a quick, detailed, and thorough manner
(b) in a quick, detailed and in thorough manner
(c) in a quick, detailing and thorough manner

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(d) quickly, detailed and thoroughly

Q22. Choose the most suitable option to replace the highlighted part of the sentence:

The country has at least twenty colleges of whom only six are officially recognized.

(a) of whom only six are officially recognized
(b) of whom only six have been officially recognized
(c) of which only six has official recognition
(d) Of which only six are officially recognized

Q23. Choose the correct passive voice transformation of the sentence:

Will the company launch the new product?

(a) The new product will be launched by the company?
(b) Will the new product be launched by the company?
(c) Is the new product launched by the company?
(d) The new product would be launched by the company?

Q24. Select the option that expresses the given sentence in direct voice.

He said to her that the film they had watched the previous night was not as good as he had expected it to be.

(a) He said to her, "The film we watched last night was not as good as I expected it to be."
(b) He said to her, "The film we had watched last night was not as good as I had expected it to be."
(c) He said to her, "The film we watched the previous night was not as good as I expected it to be."
(d) He said to her, "The film we had watched last night was not as good as I expected it to be."

Q25. Rearrange the following sentences to form a meaningful and grammatically correct paragraph:

P: The restoration project was hailed as a triumph of community and expert cooperation

Q: The valuable texts and historic architecture of the old library were preserved throughout its restoration.

R: The library quickly gained international recognition as a cultural icon.

S: To guarantee the restoration’s correctness, local historians and preservationists collaborated.

(a) R, Q, P, S
(b) S Q, P, R
(c) R, S, P, Q
(d) Q, S, P, R

GENERAL INTELLIGENCE

Q26. A bus travels at a speed of 72 km/hr. How much distance will it cover in 50 minutes?

(a) 50 km
(b) 60 km
(c) 70 km
(d) 80 km

Q27. A car travels from town A to town B at an average speed of 60 km/hr and returns from town B to town A at an average speed of 40 km/hr. What is the average speed for the entire trip?

(a) 45 km/hr
(b) 48 km/hr
(c) 50 km/hr
(d) 52 km/hr

Q28. If a piece of cloth is 8 meters long and 2. 5 meters are cut from it, how much cloth is left?

(a) 5. 0 meters
(b) 5. 5 meters
(c) 6. 0 meters
(d) 6. 5 meters

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Q29. Find the least common multiple (LCM) of 6, 9, and 12.

(a) 18
(b) 24
(c) 36
(d) 48

Q30. Read the following statement carefully and identify the inference that follows.

Statement: The TCS company has decided to lay off 1000 employees due to financial losses.

Inference:

I. The company is facing financial difficulties.

II. The employees who were laid off were not performing well.

III. The company will be able to recover from its financial losses after the layoffs.

(a) If only I follows
(b) If only III follows
(c) If both I and II follow
(d) If both I and III follow

Q31. Directions: Pick the correct options from the given alternatives

10 : 729 :: 7 : ?

(a) 216
(b) 343
(c) 125
(d) 512

Q32. Which of the following numbers would replace the question mark (?) in the given number series?

2, 10, 30, ?, 130

(a) 48
(b) 58
(c) 68
(d) 78

Q33. Select the correct option that will complete the series.

(3, 5), (5, 10), (7, 15), ?, (13, 25)

(a) (9, 20)
(b) (11, 20)
(c) (8, 16)
(d) (11, 25)

Q34. Find out the wrong number in the following series.

98, 79, 62, 47, 33, 23, 14

(a) 62
(b) 47
(c) 33
(d) 23

Q35. Three of the following are from the same category and one is different. Choose the odd one out.

(a) Plotter
(b) Joystick
(c) Stylus
(d) Trackball

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Q36. In the set of four numbers given, select the odd one out.

(a) 12
(b) 67
(c) 9
(d) 56

Q37. Directions: Select the correct options from the given alternatives

10,11.5,13.5,16,?

(a) 17. 5
(b) 19. 5
(c) 19
(d) 20. 5

Q38. Complete the following series from the given options.

m_pq_rpqm_pqmrp_

(a) rmrq
(b) rmrp
(c) mmrq
(d) mrpq

Q39. What comes next in the following series? Z4, Y9, X25, W49, V121, ?

(a) V169
(b) U169
(c) T289
(d) U289

Q40. Find the missing term in the series.

B, D, G, K, P, ?

(a) V
(b) W
(c) U
(d) X

Q41. Some letters are missing from the series. From the given alternative choose the best option which follow the pattern of the series.

a_ _fh_c_f_a_e_h

(a) ceahecf
(b) caeehcf
(c) ceaehcf
(d) eceafch

Q42. If: + → ×, - → ÷, × → -, ÷ → + Then evaluate: (12 + 3) × 4 - (8 ÷ 2) + 6 = ?

(a) 34. 6
(b) 32. 6
(c) 33. 6
(d) 33. 9

Q43. If: + → -, - → ×, × → /, / → + Then evaluate:

{{(20 - 4) × 3 + 6} / 2} = ?

(a) 22
(b) 22. 67
(c) 22. 01
(d) 22. 23

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Q44. If all novels are books and some books are boring, which of the following must be true?

(a) Some novels are boring.
(b) All boring things are books.
(c) Some books are novels.
(d) Some boring things are novels.

Q45. Directions: Choose the related word from the given alternatives

Ignition : ? :: Valve : Trumpet

(a) Bicycle
(b) Television
(c) Microwave
(d) Car

Q46. In a certain code language, 'table chair lamp' is written as 'ek, mp, su', 'lamp clock pen' is written as 'su, yz, op' and 'table pen book' is written as 'ek, op, uv'. How is 'clock' written in that language?

(a) ek
(b) yz
(c) mp
(d) uv

Q47. Three of the following words are alike in some manner and hence form a group. Which word does NOT belong to that group? (The words must be considered as meaningful English words and must not be grouped based on the number of letters/number of consonants/vowels in the word).

(a) Jharkhand
(b) Sikkim
(c) Gujarat
(d) West Bengal

Q48. When all the alphabets of 'IMPLEMENTATION' are arranged in the reverse alphabetical order from left to right, then which alphabet is 6th to the right of 13th alphabet from the right end of the new word formed?

(a) A
(b) N
(c) M
(d) L

Q49. Find the next number.

2, 6, 30, 210, ?

(a) 2520
(b) 1890
(c) 1680
(d) 3360

Q50. Identify the pattern in the following sequence.

99, 399, 899, 1599, 2499

What is the next number in the sequence?

(a) 3599
(b) 3499
(c) 3799
(d) 3699

QUANTITATIVE APTITUDE

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Q51. Which one of the following statements is FALSE?

(a) Every integer is a real number
(b) Every natural number is an integer
(c) Every irrational number is rational
(d) Rational and irrational numbers are real numbers

Q52. The decimal expansion of a rational number is:

(a) Non-terminating and non-repeating
(b) Terminating or repeating
(c) Terminating only
(d) Repeating only

Q53. A dealer bought two antique items. On the first item, he gained 25%, and on the second, he lost 10%. The cost price of the first item was 60% more than the second. If the overall profit from both items was 225, find the cost price of each item.

(a) Rs. 1,250 and Rs. 800
(b) Rs. 1,200 and Rs. 750
(c) Rs. 1,100 and Rs. 700
(d) Rs. 1,300 and Rs. 850

Q54. A dealer buys a batch of 25 pressure cookers at Rs. 800 each. He sells 15 of them at 20% profit and the remaining at 10% loss. Find the overall profit or loss percentage.

(a) 6% Profit
(b) 8% Profit
(c) 10% Profit
(d) 12% Loss

Q55. 12 books, each of Rs. 360, are sold at Rs. 3600. What is the percentage of the discount given?

(a) 16. 67%
(b) 18%
(c) 15. 5%
(d) 14. 57%

Q56. A vintage clock was bought for Rs. 10000. Its price was marked up by 40%. Thereafter, it was sold at a discount of 10% on the marked price. What was the percentage profit on the transaction?

(a) 18%
(b) 22%
(c) 26%
(d) 20%

Q57. A teacher calculated the average marks of 15 students in a test as 72.4. Later, she found that the marks of one student were wrongly entered as 68.9 instead of 86.3. After correcting the error, what is the correct average mark of the class?

(a) 73. 25
(b) 73. 56
(c) 72. 98
(d) 73. 00

Q58. A student scored 20% more marks in Math than in Science, If the average of his marks in both subjects is 66, what are his marks in Science?

(a) 62
(b) 66
(c) 58
(d) 60

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Q59. A school conducted a scholarship test where 60% of the students passed in English, 70% passed in Math, and 45% passed in both. What is the percentage of students who passed in at least one subject?

(a) 90%
(b) 75%
(c) 85%
(d) 80%

Q60. A and B invest Rs. 30,000 and Rs. 50,000 respectively. After 6 months, C joins with Rs. 60,000. What will be the ratio of their profits at the end of the year?

(a) 5:3:2
(b) 6:5:4
(c) 2:4:5
(d) 3:5:3

Q61. A, B, and C invest Rs. 20,000, Rs. 30,000, and Rs. 50,000, respectively, in a business. The profit at the end of the year is Rs. 50,000. What is B's share of the profit?

(a) Rs. 15000
(b) Rs. 16000
(c) Rs. 17000
(d) Rs. 18000

Q62. The total surface area of a cylinder is equal to its volume. Find the relation between radius and height.

(a) h = r/(r-2)
(b) h = 2r/(r-2)
(c) h = 3r/(r-2)
(d) h = 4r/(r-2)

Q63. A circle is inscribed within a square with a side length of 18 cm. Find the area of the part of the square not covered by the circle.

(a) 64. 12 cm^2
(b) 69. 53 cm^2
(c) 74. 28 cm^2
(d) 80. 00 cm^2

Q64. If $a^2 + b^2 + c^2 = 240$ and $ab - bc - ca = 64$, then find the value of $(a + b - c)^2$.

(a) 368
(b) 321
(c) 340
(d) 388

Q65. A cone and a hemisphere have equal curved surface areas and radius r. Find the slant height of the cone.

(a) l = 3r
(b) l = 4r
(c) l = 2r
(d) l = 5r

Q66. If $4 \cos A + 3 \sec A = 4\sqrt{3}$, $0° < 'A' < 90°$, then the value of 'A' is:

(a) 45°
(b) 25°
(c) 30°
(d) 60°

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Q67. If 2 Sin² A + 2√2 Cos A - 3 = 0, then find the value of tanA.

(a) 1
(b) √2
(c) (1/√2)
(d) 0

Q68. A man and a boy received Rs. 600 as wages for 5 days for the work they did together. The man's efficiency in the work was twice that of the boy. What are the daily wages of the boy?

(a) 45/-
(b) 25/-
(c) 50/-
(d) 40/-

Q69. If a solid sphere is cut into two equal hemispheres, by what percentage is the total surface area increased?

(a) 33. 33%
(b) 50%
(c) 66. 66%
(d) 1

Q70. A rectangular parallelepiped has its base diagonal equal to 17 cm and height 15 cm. If the area of its base is 120 cm ², find the total surface area of the parallelepiped.

(a) 860 cm ²
(b) 930 cm ²
(c) 720 cm ²
(d) 890 cm ²

Q71. If x = √2 + √3, find x³ - 3x.

(a) 2√2 + 3√3
(b) 8√2 - 6√3
(c) 8√2 + 6√3
(d) 2√2 - 3√3

Q72. A regular right pyramid has a square base with side length 16 cm and a height of 30 cm. Calculate the slant height and total surface area. (In approx)

(a) 31. 05 cm, 1249. 6 cm²
(b) 24. 45 cm, 1180. 8 cm²
(c) 28. 12 cm, 1230. 2 cm²
(d) 30. 12 cm, 1530. 2 cm²

Q73. A regular right pyramid with an equilateral triangular base of side 18 cm is completely submerged in a cylindrical tank of radius 10 cm, initially filled with water to a height of 25 cm. The pyramid's apex just touches the bottom of the tank. Given that the water level in the tank rises to 28 cm after the pyramid is submerged, find the perpendicular height of the pyramid.

(a) 23 cm
(b) 27.12 cm
(c) 20.14 cm
(d) 28 cm

Q74. Two vessels contain mixtures of milk and water in the ratios 3:2 and 7:3, respectively. In what ratio should these mixtures be mixed so that the resulting mixture has milk and water in the ratio 5:3 ?

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

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Q75. A sum is invested at compound interest (compounded annually) at a certain rate. The interest earned in the 1st year is Rs. 2,000, and in the 2nd year it is Rs. 2,400. Find 50% of the sum invested.

(a) Rs. 4,000
(b) Rs. 7,000
(c) Rs. 5,000
(d) Rs. 8,000

GENERAL AWARENESS

Q76. During the Delhi Sultanate period, which one of the following taxes was levied on treasure looted in war?

(a) Kharaj
(b) Jizyah
(c) Zakat
(d) Khums

Q77. Where did the Gaddi tribe's shepherds live in the fourteenth century?

(a) Western Himalayas
(b) Mysore
(c) Bijapur
(d) North-east India

Q78. As of 31st July 2025, which of the following country is NOT the member of the Association of Southeast Asian Nations?

(a) Indonesia
(b) Malaysia
(c) Pakistan
(d) Philippines

Q79. Which of the following is the joint military exercise between India and Nepal?

(a) Surya Kiran
(b) Indra
(c) Vajra Prahar
(d) Malabar

Q80. What name was given to Bal Gangadhar Tilak by the British rulers?

(a) The Father of the Indian Unrest
(b) National Treasure of India
(c) Iron Man of India
(d) The Father of Undivided India

Q81. Who was the first recipient of the Best Actor at the National Film Awards?

(a) Uttam Kumar
(b) Prithviraj Kapoor
(c) Ashok Kumar
(d) Dev Anand

Q82. In November 2024, who has been appointed as High Commissioner of India to the Republic of Maldives?

(a) Sanjiv Ranjan
(b) G. Balasubramanian
(c) Rajesh Kumar Singh
(d) Vitul Kumar

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Q83. "UDISE+" which was in news in February 2025, is related to which of the following sector?

(a) Education
(b) Tourism
(c) Trade and commerce
(d) Export

Q84. In Union Budget 2025-26, Jal Jeevan Mission has been extended until _____.

(a) 2035
(b) 2032
(c) 2028
(d) 2030

Q85. Which of the following sports is played on water?

(a) Badminton
(b) Basketball
(c) Surfing
(d) Cricket

Q86. The term Decathlon and Heptathlon are related to which of the following?

(a) Athletics events
(b) Badminton match types
(c) Swimming styles
(d) Golf area types

Q87. The 8th India Water Week 2024 was held during 17-20 September 2024, in _____.

(a) Bhopal
(b) Chandigarh
(c) New Delhi
(d) Mumbai

Q88. Volleyball was introduced in the Asian Games in ____ for women.

(a) 1962
(b) 1951
(c) 1954
(d) 1982

Q89. As of June 2025, how many Ramsar site are there in India?

(a) 91
(b) 155
(c) 79
(d) 123

Q90. Beach Volleyball World Championships 2025 will be held in which country?

(a) Spain
(b) Brazil
(c) Australia
(d) England

Q91. 'Manimahesh fair' is held in which of the following state?

(a) Kerala
(b) Himachal Pradesh
(c) Tamil Nadu
(d) Assam

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Q92. The first temple-building activity in India began during the rule of which dynasty?

(a) Gupta Dynasty
(b) Ahom Kingdom
(c) Vijayanagara Empire
(d) Gurjara-Pratihara Dynasty

Q93. 'Jaago' dance is related to which of the following state?

(a) Punjab
(b) Jharkhand
(c) Odisha
(d) Maharashtra

Q94. Why can a geo-stationary satellite monitor the movement of clouds accurately?

(a) Because it moves in North to South direction.
(b) Because it moves in South to North direction.
(c) Because it is stationary relative to any place on Earth.
(d) Because it rotates faster than Earth.

Q95. An object weighs 18 N when measured on the surface of the earth. What would be its weight when measured on the surface of the moon?

(a) 1 N
(b) 3 N
(c) 7 N
(d) 9 N

Q96. What immediate measure was taken in 1991 to resolve the balance of payments crisis in India?

(a) Increases restrictions on import.
(b) Devaluation of the rupee against foreign currencies.
(c) Revaluation of the rupee against foreign currencies.
(d) Introduction of fixed exchange rate.

Q97. In which year did Maharaja Ranjit Singh established his capital at Lahore?

(a) 1829
(b) 1821
(c) 1801
(d) 1799

Q98. As per the Fiscal Responsibility and Budget Management Act-2003, which of the following is NOT laid before both the house of parliament along with Annual Financial statement?

(a) The medium term fiscal policy statement
(b) The fiscal policy strategy statement
(c) The macroeconomic framework statement
(d) The monetary policy statement

Q99. Which of the following organ can be donated while the donor is alive?

I. Part of a liver
II. Kidney

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

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Q100. The most important achievement of Shishunaga was ____.

(a) conquering Kalinga
(b) building Pataliputra fort
(c) holding the first Buddhist council
(d) defeating Avanti (Malwa) and annexing it to Magadh

ANSWER KEY

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

SOLUTIONS

Q1. Answer: (d) and entertain.

The correct answer is Option 4.

Key Points

• The issue in the sentence lies in part D: "and entertain."
• The word "entertain" is incorrectly used in this context.
• The correct form should be "entertaining" to match the grammatical structure of the sentence.
• Thus, the error is located in part D of the sentence.

Therefore, the correct answer is Option 4.

Correct Sentence: "The movie, which you recommended, was both interesting and entertaining."

Additional Information

• A: "The movie," – This part of the sentence is grammatically correct and does not require any changes.
• B: "which you recommended," – This part of the sentence is grammatically correct and does not require any changes.
• C: "was both interesting" – This part of the sentence is grammatically correct and does not require any changes.

Q2. Answer: (c) Repeal

The solution is in Hindi. Read it online.

Q3. Answer: (c) hand over

The correct answer is 'hand over'.

Key Points

• The phrasal verb "hand over" means to pass or transfer control or responsibility to someone else.
• In the context of the sentence, the assistant is being given some responsibilities, making "hand over" the most appropriate option.
• Options 1, 2, and 4 do not fit the context of transferring responsibilities.

Therefore, the correct answer is Option 3.

Complete Sentence: "She was so overwhelmed with tasks that she had to hand over some responsibilities to her assistant."

Additional Information

• Option 1: "hand out" is incorrect as it refers to distributing items, not transferring responsibilities.
• Option 2: "hand down" is incorrect as it implies passing something to someone of the next generation, not delegating tasks.

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• Option 4: "hand in" is incorrect as it means submitting something, not delegating responsibilities.

Q4. Answer: (b) on a shoestring

The correct answer is 'on a shoestring'.

Key Points

• The phrase "on a shoestring" means operating with a very limited budget or resources.

• The sentence refers to budget cuts, implying that the organization had to manage with minimal resources, which aligns with the meaning of "on a shoestring."

• Options 1, 3, and 4 are not relevant in this context as they do not convey the idea of limited budget or resources.

Therefore, the correct answer is Option 2.

Complete Sentence: "Due to the budget cuts, the organization had to operate strictly on a shoestring."

Additional Information

• Option 1: "in a nutshell" is incorrect because it means summarizing something briefly, which does not fit the context.

• Option 3: "with flying colors" is incorrect because it refers to achieving something with great success, which is unrelated to the idea of operating on a limited budget.

• Option 4: "under the radar" is incorrect because it means doing something secretly or unnoticed, which does not align with the sentence context.

Q5. Answer: (b) Knowledge-related

The solution is in Hindi. Read it online.

Q6. Answer: (b) Circle

The correct answer is Option 2: Circle.

Key Points

• The term "mandala" originates from Sanskrit, meaning "circle."

• Mandalas are often used in spiritual and ritual contexts, symbolizing wholeness, balance, and unity.

• They are significant in Hinduism and Buddhism, representing the universe and various spiritual concepts.

• Mandalas are frequently used as tools for meditation and introspection.

Therefore, the correct answer is Option 2.

Additional Information

• Mandalas in Art: Mandalas are often depicted as intricate geometric patterns in visual art.

• Therapeutic Use: Mandalas are used in art therapy to encourage mindfulness and self-expression.

• Global Influence: The concept of mandalas has influenced cultures worldwide, extending beyond its original religious contexts.

Q7. Answer: (b) One’s identity or a heavenly essence

The correct answer is Option 2: One’s identity or a heavenly essence.

Key Points

• The center of a mandala represents one’s identity or a heavenly essence, which is often symbolic of the self or a spiritual core.

• Mandalas are spiritual and ritual symbols in Hinduism and Buddhism, representing the universe and inner harmony.

• The intricate designs radiating from the center symbolize the connectedness of all life and the cosmos.

• By focusing on the center, one can meditate and reflect on their inner self or spiritual journey.

Therefore, the correct answer is Option 2.

Explanation: The center of the mandala is often considered the most sacred and significant part, symbolizing the essence of being or the universe's soul. It is a focal point for meditation and self-awareness.

Additional Information

• The universe – While the mandala as a whole may represent the universe, the center specifically signifies one’s identity or spiritual core.

• Earthly possessions – Mandalas are not typically associated with materialistic or worldly possessions.

• The continuous flow of life – The design of the mandala as a whole may symbolize this, but the center specifically pertains to identity or spiritual essence.

Q8. Answer: (b) To symbolize the fleeting nature of life

The correct answer is Option 2: To symbolize the fleeting nature of life.

Key Points

• Monks create mandalas out of colored sand to symbolize the fleeting nature of life.

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• Once the intricate artwork is completed, it is typically destroyed to demonstrate the impermanence of existence.
• This practice aligns with Buddhist teachings about the transient and ever-changing nature of life.

Therefore, the correct answer is Option 2.

Additional Information

• Creating mandalas is also a meditative process that helps monks focus and attain mindfulness during the activity.
• The destruction of the mandala reminds individuals to detach from material possessions and ego-driven desires.
• This tradition has become a cultural and spiritual practice recognized worldwide.

Q9. Answer: (c) It helps reduce tension, and calm the mind.

The correct answer is Option 3: It helps reduce tension, and calm the mind.

Key Points

• Creating a mandala has therapeutic benefits, particularly in helping to reduce tension and calming the mind.
• The practice of making mandalas is often used in art therapy and mindfulness exercises.
• It promotes relaxation, self-expression, and mental clarity.
• Mandalas are often associated with meditation and spirituality, helping individuals focus and center their thoughts.

Therefore, the correct answer is Option 3.

Explanation: Creating a mandala does not directly improve physical health, increase artistic creativity, or help build wealth. However, it is a powerful tool for reducing mental tension and achieving calmness.

Additional Information

• Mandalas have been used in various cultures for centuries as symbols of wholeness, balance, and harmony.
• They are often incorporated in meditative practices to aid in stress relief and focus.
• Artistic creation of mandalas can also be a satisfying and reflective activity, even for individuals who do not consider themselves artists.

Q10. Answer: (b) To symbolize the cosmos and the individual's journey

The correct answer is Option 2: To symbolize the cosmos and the individual's journey.

Key Points

• In Buddhist and Hindu traditions, mandalas are used to symbolize the cosmos and the individual's spiritual journey toward enlightenment.
• They are intricate geometric designs that represent balance, unity, and harmony.
• Mandalas are often used in meditation practices and rituals to focus the mind and aid in spiritual growth.

Therefore, the correct answer is Option 2.

Additional Information

• Mandala designs vary across cultures, but they typically share a circular pattern and spiritual significance.
• In Tibetan Buddhism, mandalas are created during rituals and destroyed afterward to symbolize the impermanence of life.
• Hindu mandalas often depict deities and are used in pujas (worship ceremonies).

Q11. Answer: (c) It's a good idea to close all the windows before it starts to rain.

The solution is in Hindi. Read it online.

Q12. Answer: (a) Jaundice

The solution is in Hindi. Read it online.

Q13. Answer: (a) Psychology

The solution is in Hindi. Read it online.

Q14. Answer: (b) To refuse to give an opinion or take a side

The solution is in Hindi. Read it online.

Q15. Answer: (c) Effective

The solution is in Hindi. Read it online.

Q16. Answer: (b) Astronomer

The solution is in Hindi. Read it online.

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Q17. Answer: (a) Conservative

The solution is in Hindi. Read it online.

Q18. Answer: (c) Quiet

The solution is in Hindi. Read it online.

Q19. Answer: (c) The committee expects to deliver the report next week.

The correct answer is Option 3.

Key Points

• Active voice involves a subject performing the action, while in passive voice, the subject receives the action.

• The original sentence is in passive voice: "The report is expected to be delivered by the committee next week."

• To convert it into active voice, the subject "The committee" is placed at the beginning of the sentence.

• The verb "is expected to be delivered" is transformed into the active form "expects to deliver."

• The time phrase "next week" remains at the end of the sentence for clarity.

Therefore, the correct answer is Option 3.

Correct Sentence: "The committee expects to deliver the report next week."

Additional Information

• Option 1: "The committee is expecting to deliver the report next week." – The sentence uses the present continuous tense, which is incorrect as it changes the meaning.

• Option 2: "The committee is expected to deliver the report next week." – This sentence is still in passive voice, not active.

• Option 4: "The committee will deliver the report next week." – This sentence changes the tense to future simple, which alters the original meaning.

Q20. Answer: (a) The tour guide said that they had been walking for hours, but the ruins they had been looking for were just...

The correct answer is Option 1.

Key Points

• Indirect Speech: The tour guide said that they had been walking for hours, but the ruins they had been looking for were just around that corner, and they would be there in a few minutes.

• Key Conversions:

• "We have been walking" becomes "they had been walking"

• Pronoun "we" changes to "they" in indirect speech.

• Present perfect continuous tense "have been walking" is converted to past perfect continuous tense "had been walking."

• "are just around this corner" becomes "were just around that corner"

• Present tense "are" is converted to past tense "were" in indirect speech.

• The demonstrative "this" becomes "that" in indirect speech.

• "we will be there" becomes "they would be there"

• Pronoun "we" changes to "they" in indirect speech.

• Future tense "will" changes to conditional "would" in indirect speech.

• Punctuation and Format:

• Direct speech is converted to indirect speech, so no quotation marks are used.

• Reporting clause "The tour guide said" introduces the indirect speech correctly.

Therefore, the correct answer is Option 1.

Correct Sentence: The tour guide said that they had been walking for hours, but the ruins they had been looking for were just around that corner, and they would be there in a few minutes.

Additional Information

• Option 2: "The tour guide said that we have been walking for hours, but the ruins we have been looking for are just around this corner, and we will be there in a few minutes."

• Fails to convert the pronouns "we" to "they" and does not change tenses correctly.

• Option 3: "The tour guide said that they had been walking for hours, but the ruins they had been looking for are just around that corner, and they will be there in a few minutes."

• Incorrect tense usage: "are" and "will" are not converted to "were" and "would" respectively.

• Option 4: "The tour guide said that they were walking for hours, but the ruins they were looking for were just around that corner, and they would be there in a few minutes."

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• Incorrect tense conversion: "were walking" implies past continuous, but the original sentence uses present perfect continuous.

Q21. Answer: (a) in a quick, detailed, and thorough manner

The correct answer is 'in a quick, detailed, and thorough manner'.

Key Points

• The sentence requires parallelism in the list of adjectives to maintain grammatical correctness and readability.

• The phrase "in a quick, detailed, and thorough manner" follows proper parallel structure, which means all the adjectives are consistent in form.

• Options 2, 3, and 4 disrupt the parallel structure, making them incorrect.

Therefore, the correct answer is Option 1.

Complete Sentence: "The manager was asked to write a report in a quick, detailed, and thorough manner."

Additional Information

• Option 2: "in a quick, detailed and in thorough manner" is incorrect because the repetition of the preposition "in" is redundant.

• Option 3: "in a quick, detailing and thorough manner" is incorrect because "detailing" is not consistent with the other adjectives.

• Option 4: "quickly, detailed and thoroughly" is incorrect because "quickly" is an adverb and does not match the adjective form of "detailed" and "thoroughly" disrupts the structure.

Q22. Answer: (d) Of which only six are officially recognized

The correct answer is 'Of which only six are officially recognized'.

Key Points

• The phrase "of which" is used to refer to things or objects (colleges in this case), making Option 4 grammatically correct.

• The original sentence uses "of whom," which is used for people and is therefore incorrect here.

• The sentence requires the plural verb "are" to match the plural subject "colleges." Option 4 satisfies this condition.

Therefore, the correct answer is Option 4.

Complete Sentence: "The country has at least twenty colleges of which only six are officially recognized."

Additional Information

• Option 1: "of whom only six are officially recognized" is incorrect because "whom" refers to people, not things.

• Option 2: "of whom only six have been officially recognized" is incorrect for the same reason as Option 1.

• Option 3: "of which only six has official recognition" is incorrect because the subject "six" is plural, and the singular verb "has" does not agree with it.

Q23. Answer: (b) Will the new product be launched by the company?

The correct answer is Option 2.

Key Points

• Passive voice structure: The object of the active voice sentence becomes the subject of the passive voice sentence.

• In the active voice, the sentence is: "Will the company launch the new product?"

• To convert to passive voice: Place the object "the new product" at the beginning.

• Change the active verb form "will launch" to "will be launched" (future simple passive).

• Add the preposition "by" followed by the original subject "the company."

Therefore, the correct answer is Option 2.

Correct Sentence: "Will the new product be launched by the company?"

Additional Information

• Option 1: "The new product will be launched by the company?" – This is incorrect because it does not follow the interrogative sentence structure in passive voice.

• Option 3: "Is the new product launched by the company?" – Incorrect tense (present simple passive).

• Option 4: "The new product would be launched by the company?" – Incorrect use of modal verb "would" instead of "will."

Q24. Answer: (a) He said to her, "The film we watched last night was not as good as I expected it to be."

The correct answer is Option 1.

Key Points

• Indirect Speech: He said to her that the film they had watched the previous night was not as good as he had expected it to be.

• Key Conversions:

• "the film they had watched the previous night" becomes "The film we watched last night"

• Time expression "the previous night" is converted to "last night" to reflect direct speech.

• Pronoun "they" is changed to "we" to match the perspective of the speaker in direct speech.
• "was not as good as he had expected it to be" becomes "was not as good as I expected it to be"
• Pronoun "he" is replaced with "I" to match the speaker's point of view.
• Verb tense "had expected" is simplified to "expected" as per direct speech rules.
• Reporting verb:
• Indirect: "He said to her"
• Converted to: "He said to her," maintaining the same reporting clause.
• Punctuation and Format:
• Direct speech is enclosed in quotation marks.
• Starts with a capital letter "The" and ends with a full stop ".".
• Reporting clause is separated from the quoted speech by a comma and quotation marks.

Therefore, the correct answer is Option 1.

Correct Sentence: "He said to her, "The film we watched last night was not as good as I expected it to be.""

Additional Information

• Option 2: "He said to her, "The film we had watched last night was not as good as I had expected it to be.""
• Incorrect because the verb tense "had watched" and "had expected" does not match the direct speech style.
• Option 3: "He said to her, "The film we watched the previous night was not as good as I expected it to be.""
• Incorrect because "the previous night" is not typically used in direct speech where "last night" is preferred.
• Option 4: "He said to her, "The film we had watched last night was not as good as I expected it to be.""
• Incorrect because "had watched" is unnecessarily complex for direct speech.

Q25. Answer: (d) Q, S, P, R

The correct answer is Option 4.

Key Points

• The paragraph begins with Sentence Q, which introduces the restoration of the library.
• Sentence Q is the first sentence as it describes the preservation of valuable texts and historic architecture during the library's restoration:
• "The valuable texts and historic architecture of the old library were preserved throughout its restoration."
• Sentence S follows, as it elaborates on the collaborative efforts of local historians and preservationists:
• "To guarantee the restoration’s correctness, local historians and preservationists collaborated."
• Sentence P comes next, as it highlights the success of the restoration project:
• "The restoration project was hailed as a triumph of community and expert cooperation."
• Sentence R is the last sentence, as it discusses the library's international recognition after restoration:
• "The library quickly gained international recognition as a cultural icon."
• The correct sequence is Q, S, P, R.

Coherent paragraph after rearrangement:

"The valuable texts and historic architecture of the old library were preserved throughout its restoration. To guarantee the restoration’s correctness, local historians and preservationists collaborated. The restoration project was hailed as a triumph of community and expert cooperation. The library quickly gained international recognition as a cultural icon."

Q26. Answer: (b) 60 km

Given:

A bus travels at a speed of 72 km/hr.

We need to find the distance it covers in 50 minutes.

Now, Convert 50 minutes into hours:

50 minutes = 50 ÷ 60 = 5/6 hours

Distance = Speed × Time

Distance = 72 × (5/6)

Distance = 72 × 0.8333 ≈ 60 km

Hence, the correct answer is Option 2.

Q27. Answer: (b) 48 km/hr

Given:

A car travels from town A to B at 60 km/hr and returns from B to A at 40 km/hr.

We need to find the average speed for the entire trip.

Now,When the distance for both trips is the same, the average speed is calculated as:

Average speed

= (2 × speed1 × speed2) ÷ (speed1 + speed2)

Here,

Average speed = (2 × 60 × 40) ÷ (60 + 40)

= 4800 ÷ 100

= 48 km/hr

Hence, the correct answer is Option 2.

Q28. Answer: (b) 5. 5 meters

Given:

A piece of cloth is 8 meters long and 2.5 meters are cut from it.

Now, Subtract the cut portion from the total length:

Cloth left = 8 − 2.5 = 5.5 meters

Hence, the correct answer is Option 2.

Q29. Answer: (c) 36

Given:

Find the LCM of 6, 9, and 12.

Now,

6 = 2 × 3

9 = 3 × 3

12 = 2 × 2 × 3

So, LCM = $2^2 \times 3^2 = 4 \times 9 = 36$

Hence, the correct answer is Option 3.

Q30. Answer: (a) If only I follows

Given Statement:

The TCS company has decided to lay off 1000 employees due to financial losses.

Conclusions:

I. The company is facing financial difficulties – True (The layoffs are due to financial losses, which indicate financial difficulties).

II. The employees who were laid off were not performing well –

False (No information about employee performance is given; the reason is financial).

III. The company will be able to recover from its financial losses after the layoffs –

False (There is no certainty about recovery mentioned in the statement).

Hence, only conclusion I follows.

The correct answer is "Option 1".

Q31. Answer: (a) 216

The logic followed here is:

Logic: The second number is the first number minus 1, then cube.

Here,

10 → $(10 - 1)^3$

= 9^3

= 729

Similarly,

7 → $(7 - 1)^3$

= 6^3

= 216

Hence, the correct answer is "Option 1."

Q32. Answer: (c) 68

The logic followed here is:
thus, "68" will replace the question mark in the given series.
Hence, the correct option is "Option 3".

Q33. Answer: (b) (11, 20)

Given:
Series: (3, 5), (5, 10), (7, 15), ?, (13, 25)
First number increase by consecutive prime number.
First numbers:
Second numbers:
So, the missing term is (11, 20).
Hence, the correct answer is Option 2.

Q34. Answer: (c) 33

The logic followed here is:
thus, "33" will replace the question mark in the given series.
Hence, the correct option is "Option 3".

Q35. Answer: (a) Plotter

Given items: Plotter, Joystick, Stylus, Trackball
Plotter – Output device
Joystick – Input device
Stylus – Input device
Trackball – Input device
Thus, Three items (Joystick, Stylus, Trackball) are input devices, while Plotter is an output device.
So, the odd one out is Plotter.
Hence, the correct answer is Option 1.

Q36. Answer: (b) 67

The logic followed here is:
12, 9, and 56 are Composite Numbers (numbers with more than two factors),
Whereas,
67 is a Prime Number, as it is only divisible by 1 and itself.
So, 67 is the odd one out from the given options.
Hence, the correct answer is "Option 2".
Would you like me to find the prime factors for the other numbers in this list?

Q37. Answer: (c) 19

The logic followed here is:
thus, "19" will replace the question mark in the given series.
Hence, the correct option is "Option 3".

Q38. Answer: (a) rmrq

The logic followed here is:
Given Sequence: m_pq_rpqm_pqmrp_
Now, putting the letters in the blank spaces given in the options one by one:
Option 1) rmrq → mrpq/mrpq/mrpq/mrpq → Repeat the pattern "mrpq".
Option 2) rmrp → mrpq/mrpq/mrpq/mrpp→ Does not follow any pattern.
Option 3) mmrq →mmpq/mrpq/mrpq/mrpq→Does not follow any pattern.
Option 4) mrpq → mmpq/rrpq/mppq/mrpq→ Does not follow any pattern.
Hence, the correct answer is Option 1.

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Q39. Answer: (b) U169

The logic followed here is:

So, 'U169' will replace the question mark in the given series.

Hence, the correct answer is "Option 2".

Q40. Answer: (a) V

The logic followed here is:

thus, "V" will replace the question mark in the given series.

Hence, the correct option is "Option 1".

Q41. Answer: (c) ceaehcf

The logic followed here is:

Given Sequence: a_ _fh_c_f_a_e_h

Now, putting the letters in the blank spaces given in the options one by one:

Option 1) ceahecf → a c e f h a c h f e a c e f h (Does not repeat any pattern)

Option 2) caeehcf → a c a f h e c e f h a c e f h (Does not repeat any pattern)

Option 3) ceaehcf → a c e f h/ a c e f h/ a c e f h (Repeat the pattern "a c e f h")

Option 4) eceafch → a e c f h e c a f f a c e h h (Does not repeat any pattern)

Hence, the correct answer is Option 3.

Q42. Answer: (c) 33. 6

BODMAS Table:

Given equation: (12 + 3) × 4 − (8 ÷ 2) + 6 = ?

Now, if the operators are interchanged as per the rule, then:

=> (12 × 3) − 4 ÷ (8 + 2) × 6 = ?

=> 36 − 4 ÷ 10 × 6 = ?

=> 36 − 2.4 = ?

=> 33.6

Hence, the correct answer is Option 3.

Q43. Answer: (b) 22. 67

Given:

{{(20 - 4) × 3 + 6} / 2} = ?

By using the BODMAS rule:

By, decoding the given symbols we get.

SYMBOLS	MEANING
•	•
•	×
×	÷
/	•

Substituting the given operator in the given expression:

=> {{(20 - 4) × 3 + 6} / 2}

=> ((20 × 4) ÷ 3) - 6 + 2

=> (80 ÷ 3) - 6 + 2

=> 26.67 - 6 + 2

=> 26.67 + 2 - 6

=> 28.67 - 6

=> 22.67

Hence, the correct answer is 22.67.

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Q44. Answer: (c) Some books are novels.

Given statements:

All novels are books.

Some books are boring.

Option 1) Some novels are boring – Not true (Some books are boring, but it doesn't mean any novels are boring.)

Option 2) All boring things are books – Not true (Some books are boring, but there could be boring things that are not books.)

Option 3) Some books are novels – True (Since all novels are books, at least some books are definitely novels.)

Option 4) Some boring things are novels – Not true (The boring books may or may not include novels.)

Hence, the correct answer is Option 3.

Q45. Answer: (d) Car

The logic followed here is:

Logic: The first word is a part of the second word or object.

Here,

Valve : Trumpet → A valve is a part of a trumpet that controls airflow and sound.

Similarly,

Ignition : Car → Ignition is a part of a car that starts the engine.

Hence, the correct answer is Option 4.

Q46. Answer: (b) yz

The logic followed here is:

Given:

'table chair lamp' → ek, mp, su

'lamp clock pen' → su, yz, op

'table pen book' → ek, op, uv

So, the code for "clock" is yz.

Hence, the correct answer is Option 2.

Q47. Answer: (a) Jharkhand

Given:

Option 1) Jharkhand

– Does not share an international border with any country

Option 2) Sikkim

– Shares international borders with Nepal, Bhutan, and China

Option 3) Gujarat

– Shares an international border with Pakistan

Option 4) West Bengal

– Shares international borders with Bangladesh, Nepal, and Bhutan

So, Jharkhand does not belong to the group.

Hence, the correct answer is Option 1.

Q48. Answer: (c) M

The given word: IMPLEMENTATION

Now, If we arrange all the alphabets of IMPLEMENTATION in reverse alphabetical order, we get:

T T P O N N M M L I I E E A

The 13th alphabet from the right end of the new word is T.

The 6th alphabet to the right of this alphabet is M.

Thus, the answer is "M".

Hence, the correct answer is Option 3.

Q49. Answer: (b) 1890

The logic followed here is:

thus, "1890" will replace the question mark in the given series.

Hence, the correct option is "Option 2".

Q50. Answer: (a) 3599

The logic followed here is:

thus, "3599" will replace the question mark in the given series.

Hence, the correct option is "Option 1".

Q51. Answer: (c) Every irrational number is rational

Given:

Option 1: Every integer is a real number

Option 2: Every natural number is an integer

Option 3: Every irrational number is rational

Option 4: Rational and irrational numbers are real numbers

Formula used:

Definitions of number sets:

1. Real numbers include both rational and irrational numbers.

2. Natural numbers are a subset of integers.

3. Rational numbers and irrational numbers are mutually exclusive.

Calculation:

1. Option 1: Every integer is a real number. (True, as integers are part of real numbers)

2. Option 2: Every natural number is an integer. (True, as natural numbers are a subset of integers)

3. Option 3: Every irrational number is rational. (False, as irrational numbers cannot be expressed as a ratio of two integers and are not rational)

4. Option 4: Rational and irrational numbers are real numbers. (True, as both are subsets of real numbers)

Therefore The correct answer is option (3).

Q52. Answer: (b) Terminating or repeating

Shortcut Trick

Every rational number expressed as a fraction p/q results in one of two decimal types.

If the denominator q has only 2 or 5 as prime factors, the decimal terminates (stops).

If the denominator q has any other prime factors, the decimal is non-terminating but repeating.

Since these are the only two possibilities for rational numbers, the answer is the combination of both.

Therefore The correct answer is Terminating or repeating.

Alternate Method

Given: A rational number of the form p/q, where p and q are integers and q ≠ 0.

Concept: Decimal representation of Real Numbers.

=> Let the rational number be x = p/q.

=> If the prime factorization of q is of the form 2^n5^m (where n, m are non-negative integers), then x has a terminating decimal expansion.

=> Example: 7/8 = 7/(2^3) = 0.875.

=> If the prime factorization of q is not of the form 2^n5^m, then x has a non-terminating repeating decimal expansion.

=> Example: 1/3 = 0.333... or 0.3.

=> In contrast, irrational numbers like √2 or π have non-terminating and non-repeating expansions.

Therefore The correct answer is Terminating or repeating.

Additional Information

Irrational Numbers

Numbers that cannot be written as p/q. Their decimal expansion is always non-terminating and non-repeating.

Denominator Rule for Termination

A rational number p/q in its simplest form terminates if and only if the prime factors of q are only 2 and 5.

Pure vs Mixed Recurring Decimals

A decimal is pure recurring if all digits after the decimal point repeat (e.g., 0.444...), and mixed recurring if some digits do not repeat (e.g., 0.1222...).

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Q53. Answer: (b) Rs. 1,200 and Rs. 750

Given:
Profit on the first item = 25%
Loss on the second item = 10%
Cost price of the first item = 60% more than the second
Overall profit = Rs. 225
Formula used:
Profit/Loss = Selling Price - Cost Price
Overall Profit = Profit from the first item + Loss from the second item
Cost price relation: Cost price of the first item = 1.6 × Cost price of the second item
Calculations:
Let cost price of the second item = Rs. x
=> Cost price of the first item = 1.6 × x
Profit on the first item = 25% of 1.6x = 0.25 × 1.6x = 0.4x
Loss on the second item = 10% of x = 0.10 × x = 0.1x
Overall profit = Profit from the first item - Loss from the second item
=> 0.4x - 0.1x = Rs. 225
=> 0.3x = Rs. 225
=> x = Rs. 750
Cost price of the second item = Rs. 750
Cost price of the first item = 1.6 × Rs. 750 = Rs. 1,200
Therefore The correct answer is option (2): Rs. 1,200 and Rs. 750.

Q54. Answer: (b) 8% Profit

Given:
Number of pressure cookers = 25
Cost price (CP) per cooker = Rs. 800
Sold 15 cookers at 20% profit
Sold remaining (10 cookers) at 10% loss
Formula used:
1. Total CP = Number of items × CP per item
2. SP for profit = CP × (1 + Profit%)
3. SP for loss = CP × (1 - Loss%)
4. Overall profit or loss % = ^((Total SP - Total CP))÷_(Total CP) × 100
Calculations:
Total CP = 25 × 800 = Rs. 20,000
SP of 15 cookers at 20% profit:
=> SP = 15 × (800 × 1.20) = 15 × 960 = Rs. 14,400
SP of 10 cookers at 10% loss:
=> SP = 10 × (800 × 0.90) = 10 × 720 = Rs. 7,200
Total SP = 14,400 + 7,200 = Rs. 21,600
Overall profit %:
=> Profit % = ^((21,600 - 20,000))÷_(20,000) × 100
=> Profit % = ^(1,600)÷_(20,000) × 100
=> Profit % = 8%
Therefore The correct answer is option (2).

Q55. Answer: (a) 16. 67%

Given:
Cost Price (CP) of 12 books = 12 × Rs. 360 = Rs. 4320
Selling Price (SP) of 12 books = Rs. 3600
Formula used:

Discount Percentage = (CP - SP)/CP × 100
Calculations:
Discount Percentage = (4320 - 3600)/4320 × 100
=> Discount Percentage = 720/4320 × 100
=> Discount Percentage = 16.67%
Therefore The correct answer is option (1).

Q56. Answer: (c) 26%

Shortcut Trick
Apply the Successive Percentage formula: Net Profit % = M − D − (M × D)/100
Where M is Markup % (40) and D is Discount % (10).
Net Profit % = 40 − 10 − (40 × 10)/100
Net Profit % = 30 − 4 = 26%
Therefore The correct answer is 26%.
Alternate Method
Given:
Cost Price (CP) = Rs. 10000
Markup = 40%
Discount = 10%
Formula Used:
Marked Price (MP) = CP × (100 + Markup %)/100
Selling Price (SP) = MP × (100 − Discount %)/100
Profit % = [(SP − CP)/CP] × 100
=> Marked Price (MP) = 10000 + (40/100) × 10000 = Rs. 14000
=> Selling Price (SP) = 14000 − (10/100) × 14000
=> SP = 14000 − 1400 = Rs. 12600
=> Total Profit = SP − CP = 12600 − 10000 = Rs. 2600
=> Profit Percentage = (2600/10000) × 100 = 26%
Therefore The correct answer is 26%.
Additional Information
Markup Percentage
It is the extra price added to the Cost Price to arrive at the Marked Price. Formula: Markup % = [(MP − CP)/CP] × 100.
Discount and Selling Price
Discount is always calculated on the Marked Price (MP). SP = MP − Discount.
Effective Profit with Successive Changes
When a price is increased by x% and then decreased by y%, the net change is [x − y − (xy/100)]%.

Q57. Answer: (b) 73. 56

Given:
Average marks of 15 students = 72.4
Incorrect marks of one student = 68.9
Correct marks of the same student = 86.3
Formula used:
Corrected Average = (Sum of marks) + (Correction)/(Number of students)
Correction = Correct marks - Incorrect marks
Calculation:
Correction = 86.3 - 68.9
=> Correction = 17.4
Sum of marks = Average × Number of students
Sum of marks = 72.4 × 15
=> Sum of marks = 1086
Corrected Sum of marks = 1086 + 17.4

=> Corrected Sum of marks = 1103.4
Corrected Average = 1103.4/15
=> Corrected Average = 73.56
Therefore The correct answer is option (2).

Q58. Answer: (d) 60

Shortcut Trick
Ratio of marks in Science to Math = 100 : 120 = 5 : 6
Total marks = Average × 2 = 66 × 2 = 132
Total ratio units = 5 + 6 = 11 units
11 units = 132 => 1 unit = 12
Marks in Science = 5 units = 5 × 12 = 60
Therefore The correct answer is 60.
Alternate Method
Given:
Average marks in Math and Science = 66
Math marks = 20% more than Science marks
Formula Used:
Average = (Sum of all observations) ÷ (Total number of observations)
Calculations:
Let the marks in Science be x.
=> Marks in Math = x + 20% of x = 1.2x
=> Average = (x + 1.2x) ÷ 2
=> 66 = 2.2x ÷ 2
=> 66 = 1.1x
=> x = 66 ÷ 1.1
=> x = 660 ÷ 11
=> x = 60
Therefore The correct answer is 60.
Additional Information
Percentage Increase
To increase a value by a%, multiply the original value by (1 + a/100). Here, a 20% increase means multiplying by 1.2 or 6/5.
Relationship between Average and Sum
The sum of n observations is always equal to the Average × n. For two subjects, Sum = Average × 2.
Ratio and Proportion in Marks
When one value is k% more than another, they can be expressed as a ratio (100 + k) : 100 to simplify division of the total sum.

Q59. Answer: (c) 85%

Given:
Percentage of students who passed in English = 60%
Percentage of students who passed in Math = 70%
Percentage of students who passed in both = 45%
Formula used:
Percentage of students who passed in at least one subject = Passed in English + Passed in Math - Passed in both
Calculations:
Percentage of students who passed in at least one subject
=> 60% + 70% - 45%
=> 130% - 45%
=> 85%
Therefore The correct answer is option (3).

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Q60. Answer: (d) 3:5:3

Given:

A invests Rs. 30,000 for 12 months

B invests Rs. 50,000 for 12 months

C invests Rs. 60,000 for 6 months

Formula used:

Profit share is proportional to the product of investment and time.

Profit share = Investment × Time

Calculation:

Profit share of A = 30,000 × 12 = 360,000

Profit share of B = 50,000 × 12 = 600,000

Profit share of C = 60,000 × 6 = 360,000

Total profit share = 360,000 + 600,000 + 360,000

=> Ratio of profits = A : B : C

=> 360,000 : 600,000 : 360,000

=> 36 : 60 : 36

=> 3 : 5 : 3

Therefore The correct answer is option (4).

Q61. Answer: (a) Rs. 15000

Given:

A, B, and C invest Rs. 20,000, Rs. 30,000, and Rs. 50,000, respectively.

Total Profit = Rs. 50,000

Formula used:

Profit share of a partner = (Partner's Investment)/(Total Investment) × Total Profit

Calculations:

Total Investment = Rs. 20,000 + Rs. 30,000 + Rs. 50,000 = Rs. 1,00,000

B's Share = (30,000)/(1,00,000) × 50,000

=> B's Share = 3/10 × 50,000

=> B's Share = Rs. 15,000

Therefore The correct answer is option (1).

Q62. Answer: (b) h = 2r/(r-2)

Shortcut Trick

Equate the Total Surface Area to the Volume of the cylinder: $2\pi r(r + h) = \pi r^2 h$.

Simplify by canceling π and one r from both sides: $2(r + h) = rh$.

Expand and rearrange the terms: $2r + 2h = rh \Rightarrow 2r = h(r - 2)$.

Isolate the height (h) to find the relation: $h = 2r / (r - 2)$.

Therefore The correct answer is $h = (2r)/(r-2)$.

Alternate Method

Given that the Total Surface Area (TSA) of a cylinder is equal to its Volume (V).

Formula Used:

Total Surface Area of Cylinder = $2\pi r(r + h)$

Volume of Cylinder = $\pi r^2 h$

Calculations:

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

=> $2\pi r^2 + 2\pi rh = \pi r^2 h$

Dividing both sides by πr:

=> $2(r + h) = rh$

=> $2r + 2h = rh$

=> $2r = rh - 2h$

=> $2r = h(r - 2)$

=> h = 2r / (r − 2)

Therefore The correct answer is h = (2r)/(r−2).

Additional Information

Curved Surface Area (CSA)

The lateral surface area of a cylinder excluding the top and bottom circles is given by CSA = 2πrh.

Volume of a Cylinder

The amount of space occupied by a cylinder is V = πr²h, where r is the radius and h is the height.

Relation logic

For the relation h = 2r/(r−2) to be physically valid, the radius (r) must always be greater than 2 units.

Q63. Answer: (b) 69. 53 cm²

Given:

A circle is inscribed within a square with a side length of 18 cm.

Formula used:

Area of square = side²

Area of circle = π × (radius)²

Area not covered by the circle = Area of square - Area of circle

Calculations:

Side of square = 18 cm

Radius of circle = side/2 = 18/2 = 9 cm

Area of square = 18² = 324 cm²

Area of circle = 3.14 × 9²

=> Area of circle = 3.14 × 81 = 254.34 cm²

Area not covered by the circle = Area of square - Area of circle

=> Area not covered = 324 - 254.34 = 69.66 cm²

Therefore The correct answer is option (2).

Q64. Answer: (a) 368

Shortcut Trick

Apply the direct Algebraic Identity: (a + b − c)² = (a² + b² + c²) + 2(ab − bc − ca)

Given a² + b² + c² = 240 and ab − bc − ca = 64.

Substitute the values: (a + b − c)² = 240 + 2 × 64

Calculation: 240 + 128 = 368

Therefore The correct answer is 368.

Alternate Method

Given:

Sum of squares: a² + b² + c² = 240

Mixed term expression: ab − bc − ca = 64

Formula Used:

The general expansion of a trinomial squared is: (x + y + z)² = x² + y² + z² + 2(xy + yz + zx)

Calculations:

=> Let x = a, y = b, and z = −c

=> (a + b + (−c))² = a² + b² + (−c)² + 2(a×b + b×(−c) + (−c)×a)

=> (a + b − c)² = a² + b² + c² + 2(ab − bc − ca)

=> (a + b − c)² = 240 + 2 × 64

=> (a + b − c)² = 240 + 128

=> (a + b − c)² = 368

Therefore The correct answer is 368.

Additional Information

Trinomial Square Expansion

(a + b + c)² = a² + b² + c² + 2ab + 2bc + 2ca. The signs of the mixed terms depend on the signs of individual variables.

Alternate Sign Variation

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$(a - b - c)^2 = a^2 + b^2 + c^2 - 2ab + 2bc - 2ca$. Notice that $(-b)\times(-c)$ results in a positive $2bc$.

Sum of Squares Formula

$a^2 + b^2 + c^2 = (a + b + c)^2 - 2(ab + bc + ca)$. This is frequently used to find individual components.

Q65. Answer: (c) l = 2r

Given:

Curved Surface Area of Cone = Curved Surface Area of Hemisphere

Radius (r) = r

Formula used:

Curved Surface Area of Cone = πrl

Curved Surface Area of Hemisphere = $2\pi r^2$

Calculations:

$\pi rl = 2\pi r^2$

=> $l = 2r$

Therefore The correct answer is option (3).

Q66. Answer: (c) 30°

Given:

$4\cos A + 3\sec A = 4\sqrt{3}$

$0° \le A \le 90°$

Formula used:

$\sec A = 1/\cos A$

Calculations:

$4\cos A + 3\sec A = 4\sqrt{3}$

=> $4\cos A + 3(1/\cos A) = 4\sqrt{3}$

=> $4\cos A + 3/\cos A = 4\sqrt{3}$

=> Multiply through by cosA:

=> $4\cos^2 A + 3 = 4\sqrt{3}\cos A$

=> Rearrange:

=> $4\cos^2 A - 4\sqrt{3}\cos A + 3 = 0$

=> Let x = cosA, the equation becomes:

=> $4x^2 - 4\sqrt{3}x + 3 = 0$

=> Solve the quadratic equation using the quadratic formula:

$x = [-(-4\sqrt{3}) \pm \sqrt{\{(-4\sqrt{3})^2 - 4(4)(3)\}}] / (2 \times 4)$

=> $x = [4\sqrt{3} \pm \sqrt{\{48 - 48\}}] / 8$

=> $x = (4\sqrt{3} \pm 0) / 8$

=> $x = \sqrt{3} / 2$

So, $\cos A = \sqrt{3} / 2$

=> $A = 30°$

Therefore The correct answer is option (3).

Q67. Answer: (a) 1

Given:

$2\sin^2 A + 2\sqrt{2}\cos A - 3 = 0$

Formula used:

$\sin^2 A = 1 - \cos^2 A$

Calculation:

=> $2(1 - \cos^2 A) + 2\sqrt{2}\cos A - 3 = 0$

=> $2 - 2\cos^2 A + 2\sqrt{2}\cos A - 3 = 0$

=> $-2\cos^2 A + 2\sqrt{2}\cos A - 1 = 0$

Multiply by −1

=> $2\cos^2 A - 2\sqrt{2}\cos A + 1 = 0$

=> $(\sqrt{2}\cos A - 1)^2 = 0$

=> √2 cosA = 1
=> cosA = 1/√2
=> sinA = 1/√2
tanA = sinA ÷ cosA
=> 1
Therefore tanA = 1.

Q68. Answer: (d) 40/-

Given:
Total wages for 5 days = Rs. 600
Man's efficiency = 2 × Boy's efficiency
Let Boy's daily wage = x
Man's daily wage = 2x
Formula used:
Total daily wage = Man's daily wage + Boy's daily wage
Wages for 5 days = 5 × Total daily wage
Calculation:
Total daily wage = Man's daily wage + Boy's daily wage
=> Total daily wage = 2x + x
=> Total daily wage = 3x
Wages for 5 days = 5 × Total daily wage
=> 600 = 5 × 3x
=> 600 = 15x
=> x = 600 ÷ 15
=> x = 40
Therefore The daily wage of the boy is Rs. 40. The correct answer is option (4).

Q69. Answer: (b) 50%

Given:
A solid sphere is cut into two equal hemispheres.
Formula used:
Total Surface Area (TSA) of a Sphere = $4\pi r^2$
TSA of 1 Hemisphere = $2\pi r^2$ (curved surface) + πr^2 (base area) = $3\pi r^2$
Percentage Increase = (Increase in Surface Area)/(Original Surface Area) × 100
Calculation:
Original TSA of Sphere = $4\pi r^2$
TSA of 2 Hemispheres = 2 × $3\pi r^2$ = $6\pi r^2$
Increase in Surface Area = $6\pi r^2$ - $4\pi r^2$ = $2\pi r^2$
=> Percentage Increase = $(2\pi r^2)/(4\pi r^2)$ × 100
=> Percentage Increase = 2/4 × 100 = 50%
Therefore The correct answer is 50%.

Q70. Answer: (b) 930 cm ²

Given:
Base diagonal = 17 cm
Height = 15 cm
Area of base = 120 cm^2
Formula used:
Let sides of base = a, b
$a^2 + b^2$ = (diagonal)²
Area = a × b
Total surface area = 2(ab + bc + ca)
Calculation:

a × b = 120
$a^2 + b^2 = 17^2 = 289$
$(a + b)^2 = a^2 + b^2 + 2ab$
$\Rightarrow (a + b)^2 = 289 + 2 \times 120$
$\Rightarrow (a + b)^2 = 289 + 240$
$\Rightarrow (a + b)^2 = 529$
$\Rightarrow a + b = 23$
Total surface area:
$\Rightarrow 2(ab + h(a + b))$
$\Rightarrow 2(120 + 15 \times 23)$
$\Rightarrow 2(120 + 345)$
$\Rightarrow 2 \times 465$
$\Rightarrow 930$
Therefore Total surface area = 930 cm^2.

Q71. Answer: (c) $8\sqrt{2} + 6\sqrt{3}$

Given:
If $x = \sqrt{2} + \sqrt{3}$, find $x^3 - 3x$
Formula used:
$(a + b)^3 = a^3 + b^3 + 3ab(a + b)$
Calculation:
Let $x = \sqrt{2} + \sqrt{3}$
$x^3 = (\sqrt{2} + \sqrt{3})^3$
Using formula $(a + b)^3$, where $a = \sqrt{2}$ and $b = \sqrt{3}$:
$\Rightarrow x^3 = (\sqrt{2})^3 + (\sqrt{3})^3 + 3(\sqrt{2})(\sqrt{3})(\sqrt{2} + \sqrt{3})$
$\Rightarrow x^3 = 2\sqrt{2} + 3\sqrt{3} + 3(\sqrt{6})(\sqrt{2} + \sqrt{3})$
$\Rightarrow x^3 = 2\sqrt{2} + 3\sqrt{3} + 3\sqrt{6} \times \sqrt{2} + 3\sqrt{6} \times \sqrt{3}$
$\Rightarrow x^3 = 2\sqrt{2} + 3\sqrt{3} + 3\times\sqrt{12} + 3\times\sqrt{18}$
$\Rightarrow x^3 = 2\sqrt{2} + 3\sqrt{3} + 6\sqrt{3} + 9\sqrt{2}$
$\Rightarrow x^3 = (2\sqrt{2} + 9\sqrt{2}) + (3\sqrt{3} + 6\sqrt{3})$
$\Rightarrow x^3 = 11\sqrt{2} + 9\sqrt{3}$
Now, calculate $x^3 - 3x$:
$x = \sqrt{2} + \sqrt{3}$
$3x = 3(\sqrt{2} + \sqrt{3}) = 3\sqrt{2} + 3\sqrt{3}$
$\Rightarrow x^3 - 3x = (11\sqrt{2} + 9\sqrt{3}) - (3\sqrt{2} + 3\sqrt{3})$
$\Rightarrow x^3 - 3x = (11\sqrt{2} - 3\sqrt{2}) + (9\sqrt{3} - 3\sqrt{3})$
$\Rightarrow x^3 - 3x = 8\sqrt{2} + 6\sqrt{3}$
Therefore The correct answer is option (3).

Q72. Answer: (a) 31. 05 cm, 1249. 6 cm^2

Given:
Base side length (a) = 16 cm
Height (h) = 30 cm
Formula used:
1. Slant height (l) = $\sqrt{(h^2 + (a/2)^2)}$
2. Total Surface Area (TSA) = Base Area + Lateral Surface Area
Where,
Base Area = a^2
Lateral Surface Area = 2 × a × l
Calculations:
1. Calculate slant height (l):
$\Rightarrow l = \sqrt{(h^2 + (a/2)^2)}$

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=> l = √(30² + (16/2)²)

=> l = √(900 + 8²)

=> l = √(900 + 64)

=> l = √964

=> l ≈ 31.05 cm

2. Calculate Base Area:

=> Base Area = a²

=> Base Area = 16²

=> Base Area = 256 cm²

3. Calculate Lateral Surface Area:

=> Lateral Surface Area = 2 × a × l

=> Lateral Surface Area = 2 × 16 × 31.05

=> Lateral Surface Area ≈ 993.6 cm²

4. Calculate Total Surface Area (TSA):

=> TSA = Base Area + Lateral Surface Area

=> TSA = 256 + 993.6

=> TSA ≈ 1249.6 cm²

Therefore Slant height is approximately 31.05 cm and Total Surface Area is approximately 1249.6 cm². The correct answer is option (1).

Q73. Answer: (c) 20.14 cm

Shortcut Trick

Volume of water displaced = Volume of the submerged pyramid.

Rise in water level (h) = 28 − 25 = 3 cm.

Volume of cylinder (rise) = π × r² × h = 3.14 × 10² × 3 = 942 cm³.

Volume of pyramid = (1/3) × Base Area × Height = 942.

Base Area (Equilateral Triangle) = (√3/4) × 18² ≈ 0.433 × 324 ≈ 140.3 cm².

Height = (942 × 3) ÷ 140.3 ≈ 20.14 cm.

Therefore The correct answer is 20.14 cm.

Alternate Method

Given:

Side of equilateral triangular base (a) = 18 cm

Radius of cylindrical tank (R) = 10 cm

Initial water height (H1) = 25 cm

Final water height (H2) = 28 cm

Formula Used:

Volume of Cylinder = πR²H

Volume of Pyramid = (1/3) × Area of Base × Height

Area of Equilateral Triangle = (√3/4) × a²

Rise = 3 cm

h = ?

Vol. of Pyramid = Vol. of Water Rise

Calculations:

=> Rise in water level (h_(rise)) = 28 − 25 = 3 cm

=> Volume of water displaced = π × R² × h_(rise)

=> Volume = 3.14159 × 10² × 3 = 3.14159 × 300 = 942.477 cm³

=> Area of pyramid base = (√3/4) × 18² = (1.732/4) × 324

=> Area of base = 1.732 × 81 = 140.292 cm²

=> Volume of pyramid = (1/3) × Area of base × Height (H_p)

=> 942.477 = (1/3) × 140.292 × H_p

=> 942.477 = 46.764 × H_p

=> H_p = 942.477 ÷ 46.764 ≈ 20.15 cm

=> Using more precise √3 ≈ 1.73205 and π ≈ 3.14159, H_p ≈ 20.14 cm

Therefore The correct answer is 20.14 cm.

Additional Information

Archimedes' Principle in Mensuration

When an object is completely submerged in a liquid, the volume of the liquid displaced is exactly equal to the volume of the submerged object.

Volume of a Regular Pyramid

The volume is always V = (1/3) × Base Area × Perpendicular Height, regardless of the shape of the base (triangular, square, etc.).

Equilateral Triangle Properties

Area = (√3/4)a² and Height = (√3/2)a. These are essential for solving pyramid problems with triangular bases.

Cylinder Volume

Volume = πr²h. When calculating water rise, 'h' represents only the change in height, not the total height of the tank.

Q74. Answer: (c) 3:1

Given:

Two vessels contain mixtures of milk and water in the ratios 3:2 and 7:3 respectively.

Resulting mixture should have milk and water in the ratio 5:3.

Formula used:

To find the ratio of mixing, apply the rule of alligation:

(Milk in mixture 1 (3/5) - Milk in resulting mixture (5/8))/(Milk in resulting mixture (5/8) - Milk in mixture 2 (7/10))

Calculations:

Milk in mixture 1 = 3/5, Milk in mixture 2 = 7/10, Milk in resulting mixture = 5/8

=> Difference 1 = 3/5 - 5/8

=> Difference 1 = 24/40 - 25/40 = (-1)/40

=> Difference 2 = 5/8 - 7/10

=> Difference 2 = 50/80 - 56/80 = (-6)/80

=> Ratio = (-1)/40 / (-6)/80

=> Ratio = (1 × 80)/(6 × 40) = 80/240 = 3:1

Therefore The mixtures should be mixed in the ratio 3:1.

Q75. Answer: (c) Rs. 5,000

Shortcut Trick

Rate of interest (R) = (Difference in Interest ÷ Interest of 1st year) × 100

R = (2,400 − 2,000) ÷ 2,000 × 100 = 400 ÷ 2,000 × 100 = 20%

Sum (P) = (Interest of 1st year ÷ R) × 100 = (2,000 ÷ 20) × 100 = Rs. 10,000

50% of Sum = 10,000 × 0.5 = Rs. 5,000

Therefore The correct answer is Rs. 5,000.

Alternate Method

Given: Interest in 1st year (I1) = Rs. 2,000, Interest in 2nd year (I2) = Rs. 2,400.

Formula: For compound interest, Interest of 2nd year = Interest of 1st year + Interest on (Interest of 1st year). Also, I1 = P × R / 100.

=> Extra interest in 2nd year = 2,400 − 2,000 = Rs. 400

=> Rate of Interest (R) = (400 ÷ 2,000) × 100 = 20%

=> Interest of 1st year = P × R / 100 = 2,000

=> P × 20 / 100 = 2,000

=> P = 2,000 × 5 = Rs. 10,000

=> 50% of P = 10,000 × (50 / 100) = Rs. 5,000

Therefore The correct answer is Rs. 5,000.

Additional Information

CI vs SI for 1st Year

When interest is compounded annually, the Simple Interest and Compound Interest for the first year are always equal.

Interest on Interest

In Compound Interest, the difference between the interest of two consecutive years is the interest earned on the previous year's

interest.

Effective Rate of Interest

For two years at rate R%, the total effective CI rate is R + R + (R×R)/100 percent of the principal.

Q76. Answer: (d) Khums

The correct answer is Khums.

Key Points

• Khums was a tax levied during the Delhi Sultanate period on the treasure or booty looted in wars.

• The term Khums literally means "one-fifth" in Arabic, and it refers to the Islamic principle of taxing one-fifth (20%) of the war booty.

• This tax was collected by the state and was utilized for administrative purposes, public welfare, and religious activities.

• The remaining four-fifths of the booty were distributed among the soldiers who participated in the battle, as per Islamic law.

• The practice of levying Khums was in line with the Islamic traditions followed by the rulers of the Delhi Sultanate, such as the Slave Dynasty, Khilji Dynasty, and Tughlaq Dynasty.

Additional Information

• Kharaj:

• Kharaj was a land tax imposed on agricultural produce during the Delhi Sultanate period.

• It was usually levied on non-Muslim cultivators and was a significant source of revenue for the state.

• The tax rate varied but was typically fixed at one-third of the total agricultural produce.

• Jizyah:

• Jizyah was a tax levied on non-Muslims (referred to as Dhimmis) for protection and exemption from military service.

• This tax was an important financial contribution made by non-Muslim subjects to the Islamic state.

• Jizyah was abolished by Akbar but reinstated by Aurangzeb during the Mughal period.

• Zakat:

• Zakat is a form of almsgiving and one of the Five Pillars of Islam.

• It was a mandatory charitable contribution levied on Muslims, typically amounting to 2.5% of one’s wealth.

• Zakat was used for social welfare and assistance to the poor and needy.

• Delhi Sultanate Timeline:

Dynasty	Year	Founded By
Slave Dynasty	1206–1290	Qutb-ud-Din Aibak
Khalji Dynasty	1290–1320	Jalal-ud-din Khalji
Tughlaq Dynasty	1320–1414	Ghiyas-ud-din Tughlaq
Sayyid Dynasty	1414–1451	Khizr Khan
Lodi Dynasty	1451–1526	Bahlul Lodhi

Important Points

• Islamic Taxation System:

• The taxation system during the Delhi Sultanate was heavily influenced by Islamic principles.

• Taxes like Khums, Zakat, and Jizyah were based on Islamic jurisprudence and were used to maintain the state's administration and support religious institutions.

• These taxes were systematically collected and documented by state-appointed officials.

• Administrative Use of Taxes:

• The revenue collected through Khums and other taxes was used for state welfare, construction of mosques, fortifications, and public works.

• It also funded the military campaigns and administrative machinery of the Sultanate.

Q77. Answer: (a) Western Himalayas

The correct answer is Western Himalayas.

Key Points

• The Gaddi tribe is a semi-nomadic pastoral community primarily found in the Western Himalayas, particularly in regions like Himachal Pradesh and parts of Jammu & Kashmir.

• During the fourteenth century, the Gaddi tribe's shepherds traditionally inhabited the mountainous regions of the Western

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Himalayas due to the availability of vast pasture lands suitable for grazing their sheep and goats.

• The Gaddi shepherds followed a transhumance system, moving their herds between low-altitude winter pastures and high-altitude summer pastures in the Western Himalayan ranges.

• The climate and geographical features of the Western Himalayas, including its lush grasslands and cooler temperatures, made it an ideal location for sustaining their livelihood through sheep rearing and wool production.

• Hence, the correct answer is Western Himalayas.

Additional Information

• Gaddi Tribe:

• The Gaddi tribe is known for its pastoral lifestyle and resides mainly in the Kangra, Chamba, and Bharmaur regions of Himachal Pradesh.

• Their primary occupation involves sheep and goat rearing, and they are skilled in producing wool-based products like blankets and shawls.

• The Gaddi people follow the Hindu religion and worship deities like Lord Shiva, reflecting their deep spiritual connection with the Himalayan region.

• Transhumance:

• Transhumance is the seasonal movement of people with their livestock between fixed summer and winter pastures.

• The Gaddis move to higher altitudes during summer for grazing and return to lower altitudes during winter to escape the cold.

• This practice allows the conservation of grazing resources and ensures sustainable use of the Himalayan pastures.

• Geographical Features of Western Himalayas:

• The Western Himalayas encompass regions like Himachal Pradesh, Uttarakhand, and parts of Jammu & Kashmir.

• It is characterized by dense forests, alpine meadows, and glaciers, making it suitable for pastoralism.

• The region supports diverse flora and fauna, including medicinal plants, which are integral to the traditional knowledge of tribes like the Gaddis.

• Comparison of Other Options:

• Mysore: Located in southern India, Mysore is not suitable for the Gaddi tribe's traditional pastoral lifestyle as it lacks alpine pastures.

• Bijapur: A historic city in Karnataka, Bijapur is known for its architectural significance, but it is not associated with pastoral tribes like the Gaddis.

• North-east India: Although rich in biodiversity, North-east India does not have the alpine pastures required for the Gaddi tribe's transhumance system.

Important Points

• Historical Context: The Gaddi tribe's lifestyle in the fourteenth century revolved around their dependency on livestock and grazing lands in the Western Himalayas.

• Modern Challenges: In recent years, the Gaddi tribe has faced challenges like shrinking grazing lands and climate change, affecting their traditional way of life.

Q78. Answer: (c) Pakistan

The correct answer is Pakistan.

Key Points

• The Association of Southeast Asian Nations (ASEAN) is a regional grouping established in 1967 that promotes economic, political, and security cooperation among its 10 member countries located primarily in Southeast Asia.

• The founding members of ASEAN include Indonesia, Malaysia, the Philippines, Singapore, and Thailand, which signed the Bangkok Declaration in August 1967.

• Other members include Brunei, Vietnam, Laos, Myanmar, and Cambodia, totalling 5 members. These countries work together to enhance regional cooperation and integration.

• Pakistan is not a member of ASEAN. It is located in South Asia and is a member of other organisations like SAARC (South Asian Association for Regional Cooperation), but it does not participate in the ASEAN framework.

• Countries like Indonesia, Malaysia, and the Philippines, mentioned in the question, are prominent members of ASEAN and actively contribute to its initiatives. Hence, Pakistan is not part of ASEAN.

Additional Information

• ASEAN:

• Established: 8 August 1967, Bangkok, Thailand.

• Objective: To accelerate economic growth, social progress, and cultural development in the region.

• Headquarters: Jakarta, Indonesia.

• ASEAN Charter: Signed in November 2007 and entered into force in December 2008. It serves as the legal and institutional

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framework for ASEAN.

• Recent Summits:

• 47th ASEAN Summit:

• Held on 26–28 October 2025 at the Kuala Lumpur Convention Centre (KLCC), Malaysia.

• On 26 October 2025, Timor-Leste formally signed the accession instrument to become ASEAN's 11th Member State.

• A landmark agreement (Kuala Lumpur Peace Accord) between Thailand and Cambodia was signed during the 47th Summit to resolve long-standing border conflicts.

• ASEAN-India Summit: At the 22nd ASEAN-India Summit, Prime Minister Narendra Modi declared 2026 as the "ASEAN-India Year of Maritime Cooperation".

• Current Chairmanship: The Philippines holds the rotating ASEAN Chairmanship for 2026.

• ASEAN's Economic Role:

• ASEAN is one of the most dynamic economic regions in the world, with a combined GDP exceeding $3 trillion.

• It has established various free trade agreements (FTAs) with countries like China, Japan, South Korea, India, Australia, and New Zealand.

• The Regional Comprehensive Economic Partnership (RCEP), signed in 2020, further strengthens ASEAN's global economic integration.

• Important Members of ASEAN:

• Indonesia: The largest economy in ASEAN and a founding member.

• Malaysia: Known for its advanced infrastructure and active participation in ASEAN initiatives.

• Philippines: A founding member with a focus on regional security and economic development.

• Brunei: A small but wealthy member contributing to ASEAN's energy sector.

Important Points

• ASEAN's Dialogue Partners: ASEAN collaborates with its dialogue partners, including the USA, China, India, Japan, South Korea, and Russia, to discuss geopolitical and economic issues.

• ASEAN Regional Forum (ARF): Established in 1994, the ARF promotes regional security and confidence-building measures.

• ASEAN Economic Community (AEC): Launched in 2015, the AEC aims to create a single market and production base among ASEAN member states.

• ASEAN Free Trade Area (AFTA): AFTA was established in 1992 to promote intra-regional trade by reducing tariff barriers.

Q79. Answer: (a) Surya Kiran

The correct answer is Surya Kiran.

Key Points

• Surya Kiran is a joint military exercise conducted between India and Nepal to strengthen bilateral defense cooperation and enhance inter-operability between the armies of the two nations.

• The exercise focuses on counter-terrorism operations, disaster management, and humanitarian assistance. It also includes cultural exchanges to foster mutual understanding.

• Surya Kiran is held annually and alternates between locations in India and Nepal.

• The exercise is aimed at sharing tactical knowledge, improving military coordination, and boosting the overall relationship between the two countries.

• It reflects the strong defense ties between India and Nepal, which share a historical and geographical relationship marked by open borders and people-to-people connections.

Additional Information

• Indra:

• Indra is a bilateral military exercise conducted between India and Russia.

• It focuses on counter-terrorism operations and aims to strengthen defense cooperation between the two nations.

• It includes activities such as joint tactical drills, cultural exchanges, and strategic discussions.

• Vajra Prahar:

• Vajra Prahar is a joint military exercise between India and the United States.

• It is primarily conducted between the Special Forces of both nations to enhance their tactical skills and inter-operability.

• The exercise includes training in counter-terrorism and special operations in a simulated environment.

• Malabar:

• Malabar is a naval exercise involving India, the United States, Japan, and Australia.

• It focuses on enhancing maritime security, anti-submarine warfare, and interoperability among participating navies.

• It reflects the strategic partnership and commitment of the participating nations towards a free and open Indo-Pacific region.

Important Points

• India-Nepal Defense Relations:

• India and Nepal share a unique defense relationship characterized by open borders and deep historical ties.

• The India-Nepal Treaty of Peace and Friendship (1950) forms the basis of their defense cooperation.

• Numerous Nepalese citizens serve in the Indian Army under the Gorkha Regiment, demonstrating the mutual trust between the two countries.

• Objectives of Joint Exercises:

• Enhance mutual trust and cooperation between participating nations.

• Improve inter-operability and tactical skills in simulated environments.

• Provide training in areas such as counter-terrorism, disaster management, and humanitarian assistance.

Q80. Answer: (a) The Father of the Indian Unrest

The correct answer is The Father of the Indian Unrest.

Key Points

• Bal Gangadhar Tilak was given the title "The Father of the Indian Unrest" by the British colonial rulers due to his revolutionary ideas and activities in the Indian freedom struggle.

• This title was coined by the British writer and historian Valentine Chirol in his book titled "Indian Unrest" published in the early 20th century.

• Tilak's strong opposition to British rule and his call for Swaraj (self-rule) resonated strongly among Indians, making him a prominent leader in the freedom movement.

• He played a crucial role in the extremist faction of the Indian National Congress, advocating for direct confrontation with colonial authorities rather than moderate dialogue.

• His famous statement, "Swaraj is my birthright, and I shall have it," became a rallying cry for Indian independence.

Additional Information

• About Bal Gangadhar Tilak:

• He was born on 23 July 1856 in Ratnagiri, Maharashtra.

• Tilak was one of the earliest leaders of the Indian independence movement and is often referred to as one of the "Lal-Bal-Pal" trio, along with Lala Lajpat Rai and Bipin Chandra Pal.

• He founded two nationalist newspapers, Kesari (in Marathi) and The Mahratta (in English), which were instrumental in spreading anti-British sentiments.

• He was also a scholar of Indian culture and wrote extensively on the Bhagavad Gita and other Indian scriptures.

• Other Titles and Contributions:

• Despite the British calling him "The Father of the Indian Unrest," Tilak was also referred to as "Lokmanya," meaning "accepted by the people as their leader."

• He introduced the Ganesh Chaturthi festival as a public event to unite people and instill a sense of nationalism.

• He was a key figure in the Home Rule Movement in 1916, which aimed to attain self-governance within the British Empire.

• Context of the Title:

• The title "The Father of the Indian Unrest" by Valentine Chirol reflected British fears of Tilak's ability to mobilize people against colonial rule.

• Titles of other Leaders:

Leader	Title
Sardar Vallabhbhai Patel	Iron Man of India
Bhagat Singh	Shaheed-e-Azam
Lala Lajpat Rai	Punjab Kesari
Sarojini Naidu	Nightingale of India
Khan Abdul Ghaffar Khan	Frontier Gandhi
Chittaranjan Das	Deshbandhu
Jayaprakash Narayan	Lok Nayak

Important Points

• Valentine Chirol's Role:

• Chirol was a British journalist and historian who criticized the Indian independence movement in his writings.

• His book "Indian Unrest" was a critique of Indian nationalists, particularly Tilak and his methods.

Q81. Answer: (a) Uttam Kumar

The correct answer is Uttam Kumar.

Key Points

• Uttam Kumar was the first recipient of the National Film Award for Best Actor, which was introduced in 1968.

• He received the award for his exceptional performance in the films "Chiriyakhana" (directed by Satyajit Ray) and "Antony Firingee".

• The National Film Awards are the most prestigious awards for films in India, organized by the Government of India to honor excellence in cinema.

• Uttam Kumar was widely regarded as the icon of Bengali cinema and had a profound influence on Indian cinema.

Additional Information

• National Film Awards:

• The National Film Awards were established in 1954 and are presented annually by the Directorate of Film Festivals, which is part of the Ministry of Information and Broadcasting.

• The awards aim to encourage the production of films of high artistic and technical standards and recognize achievements across various categories, including acting, direction, music, and cinematography.

• The awards are divided into two main categories: Feature Films and Non-Feature Films, with additional awards for Best Writing on Cinema.

• Uttam Kumar's Legacy:

• Uttam Kumar was born on 3 September 1926 in Kolkata and became one of the most celebrated actors in Bengali cinema.

• He worked in over 200 films, showcasing his talent in both commercial and arthouse cinema.

• His collaborations with directors like Satyajit Ray and his co-acting with actresses like Suchitra Sen are iconic in Indian film history.

• He was posthumously awarded the Dadasaheb Phalke Award, India's highest honor in cinema.

• Other Nominees for the First Best Actor Award:

• Prithviraj Kapoor: A legendary actor known for his contribution to Indian theatre and cinema, but he did not win the first National Film Award for Best Actor.

• Ashok Kumar: A pioneering figure in Indian cinema, often referred to as the "Dadamoni," he was recognized for his acting skills but was not the first recipient of this award.

• Dev Anand: Known as the "Evergreen Star" of Bollywood, he was famous for his charismatic performances, but he did not win the first National Film Award for Best Actor.

Important Points

• 71st National Film Awards (2025):

• Dadasaheb Phalke Award: Mohanlal

• Best Feature Film: 12th Fail (Hindi)

• Best Actor (Male): Shah Rukh Khan (Jawan) & Vikrant Massey (12th Fail)

• Best Actor (Female): Rani Mukerji (Mrs. Chatterjee v/s Norway)

• Best Direction: Sudipto Sen (The Kerala Story)

• Best Popular Film Providing Wholesome Entertainment: Rocky Aur Rani Kii Prem Kahaani

• Best Feature Film Promoting National, Social, and Environmental Values: Sam Bahadur

• Best Supporting Actor: Vijayaraghavan & Muthupettai Somu Bhaskar

• Best Supporting Actress: Urvashi & Janki Bodiwala

• Best Film in AVGC (Animation, Visual Effects, Gaming & Comic): Hanu-Man

• Best Non-Feature Film: Flowering Man

Q82. Answer: (b) G. Balasubramanian

The correct answer is G. Balasubramanian.

Key Points

• G. Balasubramanian has been appointed as the High Commissioner of India to the Republic of Maldives in November 2024.

• The appointment of an Indian High Commissioner to the Maldives is a significant diplomatic position due to the strategic importance of the Maldives in the Indian Ocean Region (IOR).

• The Maldives is a close neighbor and partner of India, and both countries share strong ties in terms of defense, security, trade,

and cultural relations.

• His role will involve coordinating efforts to strengthen India-Maldives collaboration in areas such as infrastructure development, maritime security, and people-to-people connectivity.

Additional Information

• India-Maldives Relations:

• The India-Maldives relationship is based on shared cultural, historical, and economic ties, with India being one of the Maldives' closest allies.

• India has been a key partner in the Maldives' development, contributing to projects such as infrastructure development, health, and education.

• The Maldives is a member of the South Asian Association for Regional Cooperation (SAARC), which strengthens its regional ties with India.

• India has consistently provided support to the Maldives during times of crisis, such as the COVID-19 pandemic, where vaccines and other medical aid were extended.

• Role of a High Commissioner:

• A High Commissioner represents their home country in a Commonwealth nation, similar to the role of an ambassador in non-Commonwealth countries.

• The High Commissioner's responsibilities include maintaining and enhancing bilateral relations, promoting trade, and protecting the interests of their citizens in the host country.

• Strategic Importance of the Maldives:

• The Maldives' location in the Indian Ocean makes it a key player in maritime security and trade routes.

• India and the Maldives cooperate on issues such as anti-piracy, counter-terrorism, and disaster management in the Indian Ocean Region.

Important Points

• Other Options:

• Sanjiv Ranjan: A senior diplomat, but not appointed as the High Commissioner to the Maldives in 2024.

• Rajesh Kumar Singh: A distinguished personality, but holds no relevance to the given appointment.

• Vitul Kumar: Another notable name, but unrelated to the appointment in question.

Q83. Answer: (a) Education

The correct answer is Education.

Key Points

• UDISE+ stands for Unified District Information System for Education Plus.

• This system was introduced by the Ministry of Education, Government of India, to strengthen and improve the collection of data related to the school education system in India.

• UDISE+ replaces the earlier version, UDISE, and aims to provide accurate and comprehensive data related to schools, teachers, and students in both government and private schools.

• It facilitates better planning, decision-making, and implementation of policies by providing a transparent and reliable database of the education sector.

• The system covers vital aspects such as student enrollment, infrastructure availability, teacher qualifications, and dropout rates across schools in India.

Additional Information

• Key Features of UDISE+:

• UDISE+ ensures real-time data collection and reduces manual errors through digitization.

• It provides a platform for tracking and monitoring the progress of various government schemes such as Samagra Shiksha Abhiyan and Mid-Day Meal Scheme.

• Data collected through UDISE+ is used to generate reports and indices, such as the Performance Grading Index (PGI) for states and Union Territories.

• The system is designed to ensure equity, quality, and access in education.

• Importance of School Education Data:

• Reliable data is crucial for identifying gaps in infrastructure, teacher deployment, and student performance.

• It enables the government to allocate resources effectively and prioritize areas that need immediate attention.

• Quality data helps in achieving Sustainable Development Goal 4 (SDG 4), which focuses on ensuring inclusive and equitable quality education.

• Global Context:

• Similar systems like UDISE+ are implemented in other countries to monitor education-related progress. For example, UNESCO's

Education Management Information System (EMIS) aims to collect and analyze data on education globally.

• Such systems contribute to international cooperation and knowledge sharing for improving education standards worldwide.

Important Points

• UDISE+ Implementation:

• The system is applicable across schools providing elementary, secondary, and higher secondary education in India.

• UDISE+ is managed and monitored by the Department of School Education and Literacy under the Ministry of Education.

• Annual surveys conducted through UDISE+ help track the progress of various programs and schemes in the education sector.

• Key Challenges:

• Ensuring data accuracy and completeness remains a challenge, especially in remote and rural areas.

• Lack of digital infrastructure in some schools hinders the seamless implementation of UDISE+.

• Capacity-building initiatives for school administrators and education officials are essential for the effective use of UDISE+.

Q84. Answer: (d) 2030

The correct answer is 2030.

Key Points

• Jal Jeevan Mission was launched by the Government of India on 15th August 2019 to provide safe and adequate drinking water through individual household tap connections by 2024 to all rural households.

• The mission aims at ensuring functional tap water connections to every household in India's rural areas.

• In the Union Budget 2025-26, the Jal Jeevan Mission has been extended until 2030, marking a significant step toward achieving universal access to clean drinking water.

• The extension reflects the government's commitment to addressing issues related to water scarcity, hygiene, and public health.

• By extending the mission to 2030, India aligns itself with the Sustainable Development Goal (SDG) 6, which focuses on clean water and sanitation for all.

Additional Information

• Objectives of Jal Jeevan Mission:

• The mission seeks to provide 55 liters of water per person per day to every rural household through functional household tap connections.

• It emphasizes community participation and encourages villages to prepare water security plans.

• Strengthening the capacity of local bodies, including Panchayati Raj Institutions, is a key component of the program.

• It also focuses on source sustainability measures, such as rainwater harvesting and groundwater recharge.

• Sustainable Development Goal 6 (SDG 6):

• SDG 6 is part of the United Nations' 2030 Agenda, aiming to ensure the availability and sustainable management of water and sanitation for all.

• It emphasizes improving water quality, implementing integrated water resource management, and protecting water-related ecosystems.

• The Jal Jeevan Mission contributes significantly to India's progress in achieving this global goal.

• Challenges Addressed by Jal Jeevan Mission:

• India faces challenges such as water scarcity, contamination of water sources, and poor infrastructure in rural areas.

• The mission aims to address these challenges through technological interventions, robust infrastructure development, and community involvement.

Important Points

• Budget Allocation:

• The Union Budget has allocated significant funds to the Jal Jeevan Mission, reflecting its importance in the national development agenda.

• In the Union Budget 2023-24, approximately Rs. 60,000 crore was allocated to the program.

• Technological Advancements:

• The mission leverages smart meters, remote monitoring systems, and advanced water treatment technologies.

• It also promotes the use of solar-powered water supply systems in rural areas.

• Community Empowerment:

• The program encourages the formation of Village Water and Sanitation Committees (VWSCs) to ensure efficient management and maintenance.

• Training programs are conducted to enhance local capacity for water resource management.

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Q85. Answer: (c) Surfing

The correct answer is Surfing.

Key Points

• Surfing is a sport performed on water where an individual rides on ocean waves using a surfboard. The participant glides on the wave's face towards the shore.

• This sport requires large water bodies, typically oceans, seas, or artificial wave pools, where there are consistent and surfable waves.

• Surfing originated in the Pacific Islands, with Hawaii being one of the most notable regions where it developed as both a sport and cultural practice.

• The equipment primarily includes a surfboard, which comes in various sizes and designs depending on the surfer's skill level and wave conditions.

• Surfing has become a popular recreational activity worldwide and is also a competitive sport, with events like the World Surf League (WSL) and its inclusion in the Olympics.

Additional Information

• Badminton:

• This is a racket sport played indoors or outdoors where players hit a shuttlecock back and forth over a net.

• Badminton is played on a rectangular court divided by a net, and it requires quick reflexes, agility, and precision.

• The game is not water-based but is highly popular worldwide, especially in countries like India, China, and Indonesia.

• Basketball:

• A team sport played on a rectangular indoor court where players aim to score points by throwing a ball through a hoop.

• It is not related to water but requires proper coordination, strategy, and athleticism.

• Basketball was invented by Dr. James Naismith in 1891 and is now a major sport globally, especially in the United States.

• Cricket:

• Cricket is a bat-and-ball game played on a field with a 22-yard pitch in the center.

• The game involves two teams of eleven players each and is extremely popular in countries like India, England, and Australia.

• It is played on land and has no connection to water-based sports.

• Surfing:

• Surfing involves riding on water waves using a specially designed surfboard.

• It requires skill, balance, and knowledge of the wave patterns and conditions.

• Surfing competitions like the World Surf League attract participants and audiences worldwide.

• It is primarily carried out in coastal regions where wave formations are suitable for the sport.

Important Points

• Surfing in the Olympics:

• Surfing made its debut as an Olympic sport in the 2020 Tokyo Olympics, showcasing its growing global recognition.

• The event was held in natural ocean settings to capture the essence of the sport.

• Types of Surfing:

• There are various forms of surfing, such as shortboarding, longboarding, and big wave surfing, each requiring different techniques and skill levels.

• Big wave surfing involves waves that are at least 20 feet high and is considered highly challenging and dangerous.

• Surfing Equipment:

• In addition to surfboards, equipment like wetsuits, wax, leashes, and fins are commonly used to enhance performance and safety.

• Wetsuits help in maintaining body temperature while surfing in cold waters.

Q86. Answer: (a) Athletics events

The correct answer is Athletics events.

Key Points

• Decathlon and Heptathlon are multi-event competitions in track and field athletics. These events include a mix of running, jumping, and throwing disciplines.

• The Decathlon is a ten-event competition, typically conducted over two days, and is primarily for men. It includes events such as 100m sprint, long jump, shot put, high jump, 400m race, 110m hurdles, discus throw, pole vault, javelin throw, and 1500m race.

• The Heptathlon is a seven-event competition, primarily for women. It includes 100m hurdles, high jump, shot put, 200m sprint, long jump, javelin throw, and 800m race.

• Both Decathlon and Heptathlon are designed to test an athlete's versatility, endurance, speed, strength, and technique across a

diverse range of events.

• These events are typically part of international athletics championships, such as the Olympic Games, World Athletics Championships, and Commonwealth Games.

Additional Information

• History of Decathlon and Heptathlon:

• The modern Decathlon was first introduced in the 1912 Stockholm Olympics. It was inspired by the ancient Greek pentathlon, which featured five events.

• The Heptathlon for women was introduced later, replacing the Pentathlon in major competitions, and became an Olympic event in the 1984 Los Angeles Games.

• Scoring System:

• Both Decathlon and Heptathlon use a points-based system to determine the winner. Points are awarded based on the performance in each event, using pre-determined tables created by the World Athletics governing body.

• The athlete with the highest total points at the end of all events is declared the winner.

• Famous Athletes:

• Notable Decathletes include Daley Thompson (UK), Ashton Eaton (USA), and Roman Šebrle (Czech Republic).

• Prominent Heptathletes include Jackie Joyner-Kersee (USA), Jessica Ennis-Hill (UK), and Nafissatou Thiam (Belgium).

• Comparison with Other Options:

• Badminton match types: Badminton matches are categorized based on the format, such as singles or doubles, and not related to Decathlon or Heptathlon.

• Swimming styles: Swimming competitions include styles like freestyle, backstroke, breaststroke, and butterfly, which are distinct from athletics events.

• Golf area types: Golf uses terms like fairway, rough, bunker, and green to describe the playing field, unrelated to Decathlon or Heptathlon.

Q87. Answer: (c) New Delhi

The correct answer is New Delhi.

Key Points

• The 8th India Water Week (IWW) 2024 was organized in New Delhi, the national capital of India. The event was held from 17th to 20th September 2024.

• The theme for the 8th India Water Week 2024 was “Water Security for Sustainable Development”, focusing on the judicious use of water resources for sustainable economic development and environmental management.

• The event was organized by the Ministry of Jal Shakti, Government of India, in association with several national and international partners.

• India Water Week serves as a platform for policymakers, experts, and stakeholders from across the globe to discuss and collaborate on water management strategies and solutions.

• The event featured exhibitions, workshops, and panel discussions showcasing advancements in water conservation techniques, irrigation technologies, and water resource management.

Additional Information

• India Water Week:

• India Water Week is a flagship event organized by the Ministry of Jal Shakti to address critical water-related issues and explore solutions for sustainable water management.

• It was first organized in 2012, and since then, it has been held biennially, attracting participation from national and international experts, government officials, and industry leaders.

• The event focuses on themes such as water conservation, irrigation, flood management, and wastewater treatment.

• Ministry of Jal Shakti:

• The Ministry of Jal Shakti was formed in 2019 by merging the Ministry of Water Resources, River Development, and Ganga Rejuvenation with the Ministry of Drinking Water and Sanitation.

• It is responsible for the management of water resources, including drinking water supply, water conservation, and river development projects.

• Key initiatives include the Namami Gange Programme and the Jal Jeevan Mission.

• Water Security in India:

• India is home to 17% of the world's population but has only 4% of the world's freshwater resources, making water security a critical concern.

• Challenges include overexploitation of groundwater, water pollution, and climate change-induced variations in water availability.

• Programs like the Atal Bhujal Yojana and the National Water Mission aim to address these issues.

• Other Locations (Options):

• Bhopal: Known for its lakes, Bhopal has hosted several national-level conferences on water management but is not the location for the 8th India Water Week.

• Chandigarh: While Chandigarh is a planned city with effective water management practices, it has not hosted the India Water Week 2024.

• Mumbai: As a coastal city, Mumbai faces challenges like waterlogging and sea-level rise, but is not the venue for this event.

Important Points

• Significance of India Water Week:

• It provides a platform to promote integrated water resources management and sustainable water use practices.

• The event helps in formulating policies and strategies for water-related challenges in India and globally.

• International Cooperation:

• Several international organizations, including the United Nations, the World Bank, and FAO, participate in the event, sharing best practices and technologies.

Q88. Answer: (a) 1962

The correct answer is 1962.

Key Points

• Volleyball for women was introduced in the Asian Games during the 1962 edition, held in Jakarta, Indonesia. This marked the first official recognition of women's volleyball in the prestigious multi-sport event.

• The Asian Games is a continental multi-sport event organized every four years by the Olympic Council of Asia. Volleyball became part of the games program much earlier for men, but women's volleyball gained prominence in 1962.

• In the 1962 Asian Games, volleyball was introduced as a competitive sport for women, reflecting the growing emphasis on gender inclusion in sports.

• Women's volleyball has since become a regular event in the Asian Games, showcasing talent from countries like Japan, China, South Korea, and Thailand, which dominate the sport at the continental level.

• The introduction of volleyball for women in 1962 highlighted the expansion of sports opportunities for women in Asia, paving the way for their active participation in international sports tournaments.

Additional Information

• History of Volleyball:

• Volleyball was invented in 1895 by William G. Morgan in the United States. Initially named "Mintonette," it evolved into the modern game of volleyball.

• The sport gained international popularity and became part of the Olympic Games in 1964.

• Asian countries like Japan and China have significantly contributed to the development and popularity of volleyball, especially in women's categories.

• Asian Games Overview:

• The Asian Games, also known as the Asiad, is the second-largest multi-sport event after the Olympics.

• It is organized by the Olympic Council of Asia (OCA), with participation from countries across Asia.

• Since its inception in 1951, the Asian Games have included a variety of sports, including team sports like volleyball.

• Women's Participation in Sports:

• The inclusion of women's volleyball in 1962 marked a significant step towards gender equality in sports.

• Efforts to promote women's sports have led to increased participation and success in international competitions.

• Countries like China and Japan have consistently been at the forefront of encouraging women's participation in volleyball.

• Volleyball in Asia:

• Asian countries have historically excelled in volleyball, especially in women's categories, with teams from Japan, China, and South Korea being dominant.

• The Asian Volleyball Confederation (AVC) governs volleyball activities in Asia, organizing tournaments and fostering the sport's development.

• Women's volleyball competitions in Asia are now integral to events like the Asian Volleyball Championships and the Asian Games.

Important Points

• 1951: The inaugural Asian Games were held in New Delhi, India, but volleyball was not included for women.

• 1954: Men's volleyball was introduced in the Asian Games, but women's volleyball debuted later in 1962.

• 1982: By this time, women's volleyball had become a staple of the Asian Games, with growing participation and competitiveness.

• Countries with strong volleyball traditions, such as Japan and China, have dominated both men's and women's competitions in

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the Asian Games.

Q89. Answer: (a) 91

The correct answer is 91.

Key Points

• Ramsar Sites are wetlands of international importance designated under the Ramsar Convention, an international treaty signed in 1971 in Ramsar, Iran. These sites are essential for biodiversity conservation and sustainable development.

• As of June 2025, India has 91 Ramsar sites, covering a total area of about 20,758.19 square kilometers. These sites play a critical role in maintaining ecological balance.

• India is one of the contracting parties to the Ramsar Convention since 1982 and has been proactive in identifying and designating wetlands of ecological significance.

• The most recent additions to the list include wetlands like Sakhya Sagar in Madhya Pradesh and Pala Wetland in Mizoram, recognized for their biodiversity and ecological significance.

• India has the largest number of Ramsar sites in South Asia, demonstrating its commitment to wetland conservation and sustainable management practices.

Additional Information

• Key Features of Ramsar Sites:

• Wetlands provide critical ecosystem services such as flood control, groundwater replenishment, and climate regulation.

• They serve as habitats for a wide variety of flora and fauna, including migratory birds, amphibians, and aquatic species.

• Many Ramsar sites in India are culturally significant and are linked to the livelihoods of local communities.

• Notable Ramsar Sites in India:

• Sundarbans Wetland in West Bengal: It is the largest tidal halophytic mangrove forest in the world and a UNESCO World Heritage Site.

• Chilika Lake in Odisha: Asia's largest brackish water lagoon, known for its rich biodiversity and as a significant bird sanctuary.

• Loktak Lake in Manipur: Famous for its floating phumdis (heterogeneous masses of vegetation) and biodiversity.

• Importance of Wetland Conservation:

• Wetlands act as natural water purifiers by filtering pollutants from water.

• They are significant for carbon sequestration, helping mitigate climate change.

• Wetlands support sustainable livelihoods by providing resources like fish, fodder, and water for agriculture.

• Ramsar Convention:

• The Ramsar Convention on Wetlands is an international treaty adopted in 1971 to conserve and sustainably use wetlands.

• It emphasizes the "wise use" of wetlands, which involves maintaining their ecological character through sustainable practices.

• India is one of the 173 contracting parties to the convention as of 2025.

Important Points

• Criteria for Ramsar Site Designation:

• The site should support vulnerable, endangered, or critically endangered species.

• It should be a habitat for flora and fauna during critical stages of their life cycle.

• The site must play a significant role in maintaining the biological diversity of the region.

• Challenges in Wetland Conservation:

• Threats like urbanization, pollution, and encroachment have led to the degradation of wetlands.

• Climate change impacts, such as altered rainfall patterns and rising temperatures, threaten wetland ecosystems.

• Efforts like community participation and government initiatives are crucial for wetland restoration and management.

Q90. Answer: (c) Australia

The correct answer is Australia.

Key Points

• The Beach Volleyball World Championships 2025 will be hosted by Australia, an iconic destination known for its pristine beaches and vibrant sporting culture.

• This event is one of the most prestigious tournaments in the sport of Beach Volleyball, and it is organized by the Fédération Internationale de Volleyball (FIVB).

• The decision to host the championship in Australia underscores the country's rich history of successfully conducting international sporting events like the 2018 Commonwealth Games and the 2000 Sydney Olympics.

• Australia's beaches, particularly in cities like the Gold Coast, Sydney, and Perth, are globally recognized as prime locations for beach volleyball.

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Additional Information

• Beach Volleyball World Championships:

• The Beach Volleyball World Championships are held every two years and bring together the world's best beach volleyball teams.

• The inaugural championship was held in 1997 in Los Angeles, USA.

• It is a part of the FIVB's broader mission to promote beach volleyball as a global sport.

• The tournament typically features men's and women's competitions, with over 48 teams participating in each category.

• Australia as a Sporting Nation:

• Australia is globally recognized for its passion for sports, with a strong emphasis on outdoor and water-based activities due to its geographical and climatic conditions.

• The country has hosted several international events, including the FIFA Women's World Cup 2023 and the Rugby World Cup.

• Australia's government and private organizations actively invest in sports infrastructure and talent development.

• Other Options:

• Spain: Spain is known for its football and tennis legacy rather than beach volleyball. It has hosted events like the 2010 FIFA World Cup and Ryder Cup.

• Brazil: Brazil is a powerhouse in beach volleyball and has hosted the championship previously, but it is not the host for 2025.

• England: While England is renowned for sports like cricket and football, beach volleyball is not a dominant sport there.

Important Points

• The 2023 Beach Volleyball World Championships were held in Mexico, setting the stage for the 2025 edition in Australia.

• Beach Volleyball has been a part of the Olympic Games since 1996, further highlighting its growing global popularity.

Q91. Answer: (b) Himachal Pradesh

The correct answer is Himachal Pradesh.

Key Points

• The Manimahesh Fair is an annual pilgrimage held in the state of Himachal Pradesh, India.

• It is organized at the Manimahesh Lake, located near the Manimahesh Kailash Peak in the Bharmour region of the Chamba district.

• According to tradition, the fair is held every year during the month of Bhadrapada (August-September) as per the Hindu calendar.

• The Manimahesh Lake is considered to be holy, and devotees from across India undertake this pilgrimage to seek blessings from Lord Shiva, who is believed to reside in the Manimahesh Kailash Peak.

• The fair is a significant religious and cultural event and attracts thousands of pilgrims, especially during the Janmashtami and Radhashtami festivals.

Additional Information

• Manimahesh Lake:

• The lake is situated at an altitude of approximately 4,080 meters (13,390 feet) above sea level in the Pir Panjal Range of the Himalayas.

• The name "Manimahesh" translates to the "jewel of Lord Shiva", as the deity is believed to adorn the peak with his divine presence.

• Manimahesh Kailash Peak:

• The Manimahesh Kailash Peak is revered as the abode of Lord Shiva.

• This peak remains unclimbed due to its religious significance, as it is considered sacred by the devotees.

• Significance of the Pilgrimage:

• The pilgrimage to Manimahesh Lake is considered equivalent to the Kailash Mansarovar Yatra in Tibet.

• Pilgrims believe that a dip in the holy lake purifies the soul and washes away sins.

• Access and Routes:

• The trek to the lake begins at the Hadsar village, which is accessible via Bharmour in the Chamba district.

• The route involves a strenuous trek through the scenic and rugged landscapes of the Himalayas.

• Other Fairs in Himachal Pradesh:

• Himachal Pradesh is renowned for its fairs and festivals, including the Kullu Dussehra, Lavi Fair, and Minjar Fair.

• These events reflect the cultural richness and traditional heritage of the state.

Important Points

• Religious Beliefs: The Manimahesh pilgrimage is deeply rooted in Hindu religious beliefs. It is said that Lord Shiva created the Manimahesh Lake after marrying Goddess Parvati.

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• Environmental Concerns: The growing number of pilgrims has raised concerns about environmental degradation in the region. Efforts are being made to promote eco-friendly tourism.

• Accessibility: The pilgrimage is undertaken during specific months due to the extreme weather conditions in the region. The area remains inaccessible in winter due to heavy snowfall.

Q92. Answer: (a) Gupta Dynasty

The correct answer is Gupta Dynasty.

Key Points

• The Gupta Dynasty (circa 3rd to 6th century CE) is credited with initiating the first significant temple-building activity in India. Temples built during this period were primarily dedicated to Hindu deities, such as Vishnu, Shiva, and Shakti.

• The early Gupta temples were typically made of brick and stone, showcasing the transition from wood-based structures to more durable materials. This marked the beginning of India's rich temple architecture tradition.

• Examples of Gupta temple architecture include the Dashavatara Temple in Deogarh and the Durga Temple in Aihole. These temples featured simple designs, flat roofs, and intricate carvings that later evolved into more complex structures.

• The Gupta Dynasty is often referred to as the "Golden Age of India" due to its advancements in art, architecture, literature, and science. Temple-building was an integral part of this cultural resurgence.

• The temples built during the Gupta period laid the foundation for the development of Nagara, Dravidian, and Vesara styles of temple architecture, which flourished in later centuries.

Additional Information

• Gupta Dynasty:

• The Gupta Empire ruled over large parts of India between the 3rd and 6th centuries CE.

• It is known for its significant contributions to Hinduism, Buddhism, and Jainism, and its promotion of Sanskrit literature.

• Key rulers included Chandragupta I, Samudragupta, and Chandragupta II, who patronized arts, culture, and temple-building projects.

• Temple Architecture during Gupta Era:

• The temples were small and modest in size but introduced key architectural features like garbhagriha (sanctum sanctorum) and shikhara (spire).

• They primarily used stone and terracotta for construction, replacing earlier wooden structures.

• The Dashavatara Temple in Deogarh is one of the earliest examples of a Nagara-style temple with a square sanctum and intricate carvings.

• Other Options Explained:

• Ahom Kingdom:

• The Ahom Kingdom (1228–1826 CE) was located in present-day Assam and is known for its unique architecture, such as the Rang Ghar, but it is not associated with the origins of temple-building in India.

• Vijayanagara Empire:

• The Vijayanagara Empire (1336–1646 CE) in South India is famous for its Dravidian-style temples, such as the Virupaksha Temple, but it came much later than the Gupta period.

• Gurjara-Pratihara Dynasty:

• The Gurjara-Pratihara Dynasty (8th–11th century CE) significantly contributed to temple architecture, especially in North India, but their temple-building activities were inspired by earlier Gupta structures.

• Legacy of Gupta Temples:

• The architectural principles established during the Gupta period influenced temple-building activities across India for centuries.

• The cultural and religious importance of temples grew during and after the Gupta era, making them centers of devotion, art, and learning.

Q93. Answer: (a) Punjab

The correct answer is Punjab.

Key Points

• The ‘Jaago’ dance is a traditional folk dance associated with the state of Punjab.

• ‘Jaago’ literally means "wake up" and is performed during wedding celebrations to awaken the village or community to join the festivities.

• During this dance, women carry decorated brass vessels (often illuminated with oil lamps or candles) on their heads, which adds a spiritual and celebratory element to the performance.

• The dance is accompanied by traditional Punjabi folk songs that are sung collectively, often humorously teasing the bride, groom, or their families.

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• ‘Jaago’ reflects the rich cultural heritage of Punjab and is deeply rooted in the traditions and customs of Punjabi weddings.

Additional Information

• Punjab’s Cultural Significance:

• Punjab is known for its vibrant culture, which includes traditional dances like Bhangra, Giddha, and Jaago.

• The state has a rich tradition of folk music and dance, which are often performed during festivals, harvests, and other significant occasions.

• ‘Jaago’ is particularly significant as it blends community participation with a sense of celebration and joy.

• Other Traditional Dances of Punjab:

• Bhangra: A high-energy dance performed mostly by men during harvest festivals such as Baisakhi.

• Giddha: A lively women’s dance that involves clapping and singing boliyan (folk couplets).

• Sammi: A less well-known dance performed by women in rural areas of Punjab, often characterized by slow, graceful movements.

• Significance of ‘Jaago’:

• ‘Jaago’ is symbolic of community unity and celebration during weddings, where everyone is invited to join the revelry.

• The lit candles or lamps in the brass vessels signify light and hope for the new couple's journey ahead.

• Traditional Elements:

• The decorative vessels used in ‘Jaago’ are called “chajj” and are adorned with flowers, mirrors, and colorful threads.

• The folk songs sung during ‘Jaago’ are often humorous, adding a playful element to the occasion.

Important Points

• Comparison with Other States’ Folk Dances:

• Jharkhand: Known for tribal dances such as Chhau and Paika, which are distinct from Punjab’s ‘Jaago’ dance.

• Odisha: Famous for Odissi dance and folk dances like Dalkhai and Chhau. These are classical and tribal in nature.

• Maharashtra: Popular for Lavani and Koli dances, showcasing the cultural essence of the state’s fisherfolk and rural communities.

Q94. Answer: (c) Because it is stationary relative to any place on Earth.

The correct answer is Because it is stationary relative to any place on Earth.

Key Points

• A geo-stationary satellite orbits the Earth at the same rotational speed as the Earth itself. Hence, it appears stationary when observed from any point on the Earth's surface. This is why it can monitor cloud movements accurately.

• It is positioned in a geosynchronous orbit, approximately 35,786 kilometers above the Earth's equator. This specific altitude ensures its synchronization with Earth's rotation.

• Since the satellite remains fixed relative to a specific location on Earth, it provides a continuous and consistent view of the same geographical region.

• Geo-stationary satellites are extensively used in weather forecasting, communication, and surveillance as they can monitor atmospheric changes and relay information in real time.

• The satellite's ability to monitor clouds is critical for tracking weather patterns, such as cyclones, storms, or precipitation, ensuring accurate and timely predictions.

Additional Information

• Geo-stationary Satellite Characteristics:

• A geo-stationary satellite revolves in the Earth's equatorial plane from west to east, matching Earth's rotational period of 24 hours.

• It maintains an orbital speed of 3.07 km/s to remain aligned with Earth's rotation.

• Its unique position makes it ideal for continuous observation of a fixed region, unlike polar satellites that move across the Earth's surface.

• Applications of Geo-stationary Satellites:

• Meteorology: Real-time monitoring of weather patterns, cloud formation, and natural disasters like cyclones and hurricanes.

• Communication: Facilitates global telecommunication, TV broadcasting, and internet services.

• Navigation: Supports GPS systems and other location-based services.

• Earth Observation: Used for environmental monitoring, resource management, and national security.

• Comparison with Polar Satellites:

• Polar satellites orbit the Earth from pole to pole and are suitable for global coverage as they scan the entire Earth's surface periodically.

• Geo-stationary satellites, on the other hand, focus on a specific region, making them more suitable for applications requiring

continuous monitoring.

• Important Points:

• The concept of geo-stationary orbit was first proposed by scientist Arthur C. Clarke in 1945.

• Examples of geo-stationary satellites include INSAT series (India), GOES (USA), and Meteosat (Europe).

• These satellites require a launch vehicle capable of placing them at geostationary transfer orbits, such as the GSLV (Geosynchronous Satellite Launch Vehicle).

Q95. Answer: (b) 3 N

The correct answer is 3 N.

Key Points

• The weight of an object depends on the gravitational force acting on it. The weight is calculated using the formula Weight = Mass × Gravitational Acceleration.

• The gravitational acceleration on the surface of the Moon is approximately 1/6th of the gravitational acceleration on Earth. Earth's gravitational acceleration is roughly 9.8 m/s², whereas the Moon's is about 1.63 m/s².

• Given that the object weighs 18 N on Earth, its mass can be calculated using the formula:

Mass = Weight / Gravitational Acceleration. Thus, Mass = 18 N / 9.8 m/s² ≈ 1.84 kg.

• On the Moon, the weight is recalculated using the same mass but the Moon's gravitational acceleration:

Weight on Moon = Mass × Gravitational Acceleration on Moon, which gives Weight = 1.84 kg × 1.63 m/s² ≈ 3 N.

• Hence, the weight of the object on the Moon would be approximately 3 N, making Option 2 the correct answer.

Additional Information

• Gravitational Force:

• Gravitational force is a fundamental force of nature that attracts two bodies with mass toward each other.

• The strength of this force depends on the masses of the objects and the distance between them according to Newton's Law of Gravitation.

• The gravitational acceleration varies across celestial bodies. For example, Earth's gravitational acceleration is 9.8 m/s², while Jupiter's is 24.79 m/s², and Mars' is 3.71 m/s².

• Weight vs. Mass:

• Mass is the amount of matter in an object and remains constant irrespective of location.

• Weight, on the other hand, is a measure of the gravitational force acting on that mass and varies depending on the gravitational field strength of the celestial body.

• Moon’s Gravity:

• The Moon's gravitational acceleration is approximately 1/6th of Earth's due to its smaller mass and size.

• This lower gravity has significant implications for activities on the Moon, such as walking, jumping, and lifting objects.

• Implications for Space Exploration:

• Understanding weight differences on celestial bodies is crucial for designing spacecraft, spacesuits, and tools for astronauts.

• Lower gravity environments, such as the Moon's, allow astronauts to carry heavier equipment and perform tasks more easily compared to Earth.

• Examples include the Apollo missions, where astronauts experienced reduced weight and mobility challenges due to the Moon’s lower gravity.

Important Points

• Calculation of Weight: The formula Weight = Mass × Gravitational Acceleration applies universally across different celestial bodies.

• Gravitational Acceleration of Common Celestial Bodies:

• Earth: 9.8 m/s²

• Moon: 1.63 m/s²

• Mars: 3.71 m/s²

• Jupiter: 24.79 m/s²

• Space Missions: Gravity considerations are vital for planning missions, such as designing rovers and landers for the Moon and Mars.

• Scientific Relevance: Understanding gravitational differences helps scientists study planetary structures, atmospheres, and potential habitability.

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Q96. Answer: (b) Devaluation of the rupee against foreign currencies.

The correct answer is Devaluation of the rupee against foreign currencies.

Key Points

• In 1991, India faced a severe Balance of Payments (BoP) crisis, with a sharp decline in foreign exchange reserves, leaving the country with reserves sufficient for just a few weeks of imports.

• To address this crisis, the Government of India resorted to the devaluation of the rupee in July 1991. This measure involved reducing the value of the rupee relative to foreign currencies, making Indian exports cheaper and imports costlier.

• The devaluation was carried out in two steps: on July 1, 1991, the rupee was devalued by approximately 9%, followed by a further devaluation of 11% on July 3, 1991.

• This policy aimed to improve the competitiveness of Indian exports in international markets and attract foreign exchange, helping to stabilize the economy.

• The devaluation formed part of a broader set of economic reforms initiated under the guidance of the then Finance Minister, Dr. Manmohan Singh, and Prime Minister P.V. Narasimha Rao.

• This measure, along with the liberalization of the Indian economy, played a significant role in resolving the BoP crisis and initiating economic reforms in India.

Additional Information

• Balance of Payments (BoP) Crisis, 1991:

• India’s BoP crisis in 1991 was marked by high fiscal deficits, low foreign exchange reserves, and a sharp increase in the current account deficit.

• The crisis was triggered by factors like rising oil prices due to the Gulf War, a decline in remittances, and a high trade deficit.

• Economic Reforms of 1991:

• The devaluation of the rupee was part of a series of reforms that included liberalization, privatization, and globalization (LPG) policies.

• The reforms aimed to reduce government control in the economy, attract foreign direct investment (FDI), and encourage private sector growth.

• Significance of Rupee Devaluation:

• Devaluation made Indian goods cheaper in the global market, boosting exports.

• It helped in attracting foreign capital and stabilizing the rupee’s exchange rate over time.

• Role of International Monetary Fund (IMF):

• India approached the IMF for financial assistance during the BoP crisis.

• As part of the structural adjustment program, India implemented economic reforms, including the rupee devaluation.

• Important Figures:

• Dr. Manmohan Singh, as Finance Minister, played a pivotal role in shaping and implementing the economic reforms.

• Prime Minister P.V. Narasimha Rao provided political leadership and support for the reforms.

Important Points

• Exchange Rate Policy: The devaluation marked the shift from a fixed exchange rate system to a market-determined exchange rate system over subsequent years.

• Impact on Inflation: The devaluation initially led to a rise in import costs, causing inflationary pressures in the domestic economy.

• Long-Term Benefits: The reforms initiated in 1991 laid the foundation for India’s economic growth, transforming it into one of the world’s fastest-growing economies.

Q97. Answer: (d) 1799

The correct answer is 1799.

Key Points

• Maharaja Ranjit Singh established his capital at Lahore in 1799. This marked the beginning of his reign as a significant ruler in North India.

• In 1799, Ranjit Singh captured Lahore after defeating the Bhangi Misl, one of the Sikh confederacies, and made it his political and administrative center.

• Lahore was strategically important due to its location on the trade routes and its historical significance as a cultural and administrative hub.

• Under his rule, Lahore became the capital of the Sikh Empire, which extended across Punjab, Jammu, and Kashmir, and parts of modern-day Pakistan.

• This establishment of Lahore as the capital strengthened Ranjit Singh's empire and consolidated his power in the region.

Additional Information

• Maharaja Ranjit Singh:

• Also known as the "Lion of Punjab", Ranjit Singh was the founder of the Sikh Empire in the early 19th century.

• He unified the Sikh misls (confederacies) and established a strong and centralized state.

• Ranjit Singh's reign lasted from 1801 to 1839. During his rule, the Sikh Empire was known for its secular governance and military strength.

• Lahore:

• Lahore has historically been a prominent city in the Indian subcontinent, serving as a cultural, political, and administrative center.

• During Ranjit Singh's reign, Lahore flourished as a center of arts, architecture, and trade.

• The famous Lahore Fort and the Hazuri Bagh were renovated and expanded under his rule.

• The Sikh Empire:

• The Sikh Empire was a major power in the Indian subcontinent during the early 19th century, with its peak under Ranjit Singh's rule.

• The empire's territory extended from the Sutlej River in the east to the Khyber Pass in the west and from the Himalayas in the north to the Sindh region in the south.

• Ranjit Singh modernized the army with European assistance, making it one of the most formidable forces in the region.

• Other Options:

• 1829: By this time, Ranjit Singh had already established his empire and was focusing on consolidating his territories.

• 1821: This year does not mark any significant event in relation to the establishment of Lahore as the capital.

• 1801: This year marks the coronation of Ranjit Singh as the Maharaja of Punjab, but Lahore had already been established as his capital in 1799.

Important Points

• Contributions of Maharaja Ranjit Singh:

• He established a secular administration and ensured religious harmony in his empire.

• He modernized the army by employing European officers and adopting advanced military techniques.

• He commissioned the construction and renovation of various architectural marvels, including the gilding of the Harmandir Sahib (Golden Temple) in Amritsar.

• Decline of the Sikh Empire:

• After the death of Maharaja Ranjit Singh in 1839, the empire faced internal conflicts and weakened leadership.

• This led to its eventual annexation by the British in 1849 after the Second Anglo-Sikh War.

Q98. Answer: (d) The monetary policy statement

The correct answer is The monetary policy statement.

Key Points

• The Fiscal Responsibility and Budget Management (FRBM) Act, 2003, mandates that the central government lay down certain financial documents before both Houses of Parliament, along with the Annual Financial Statement (Union Budget).

• These documents include:

• The Medium-Term Fiscal Policy Statement, which outlines the government's fiscal goals and how these goals will be achieved over a period of three years.

• The Fiscal Policy Strategy Statement, which explains the key policies and priorities of the government for achieving fiscal targets.

• The Macroeconomic Framework Statement, which provides an overview of the economic outlook, including GDP growth, fiscal balance, and external sector performance.

• The Monetary Policy Statement, however, is NOT required to be laid before the Parliament under the FRBM Act, 2003. This statement is generally issued by the Reserve Bank of India (RBI) as part of its monetary policy framework.

Additional Information

• Medium-Term Fiscal Policy Statement:

• This document projects the fiscal targets for the next three years.

• It includes targets for revenue deficit, fiscal deficit, tax revenue, and total outstanding liabilities.

• It helps in assessing the sustainability of government finances over the medium term.

• Fiscal Policy Strategy Statement:

• This statement explains the government's fiscal priorities and policies for the upcoming financial year.

• It details the approach for achieving fiscal objectives such as reducing deficits and improving revenue mobilization.

• It also includes information on expenditure management and structural reforms.

• Macroeconomic Framework Statement:

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• It provides an overview of the economy, including growth prospects, inflation trends, and external sector developments.

• It also discusses fiscal performance and the impact of fiscal policy on the economy.

• This statement is crucial for understanding the economic context in which the budget is prepared.

• Monetary Policy Statement:

• This statement is issued by the Reserve Bank of India (RBI) to outline the monetary policy decisions.

• It includes details on interest rates, inflation targeting, and liquidity measures.

• The statement is released as part of the RBI's bi-monthly monetary policy review and is not part of the documents required under the FRBM Act, 2003.

Important Points

• Fiscal Responsibility and Budget Management (FRBM) Act, 2003:

• The Act was enacted to bring fiscal discipline and improve transparency in India's fiscal management system.

• It sets targets for reducing fiscal deficit and revenue deficit.

• The Act requires the government to present various financial documents to ensure accountability and transparency.

• Role of the RBI in Monetary Policy:

• The RBI is the central authority for monetary policy in India, tasked with maintaining price stability and ensuring adequate credit flow to the economy.

• The monetary policy is executed through tools like repo rate, reverse repo rate, and cash reserve ratio.

Q99. Answer: (c) Both I and II

The correct answer is Both I and II.

Key Points

• Living organ donation allows healthy individuals to donate certain organs or tissues while they are alive to save or enhance the lives of others. This is regulated under strict medical guidelines and ethical considerations.

• Part of a liver can be donated by a living donor. The liver has a unique ability to regenerate, making it possible for a portion of the liver to be transplanted while the donor's liver regrows to its normal size. Hence, statement I is correct.

• A kidney can be donated by a living donor. Humans typically have two kidneys, and one kidney is sufficient for a donor to live a healthy life while the donated kidney can save the life of the recipient. Hence, statement II is correct.

• Living organ donation is strictly regulated to ensure the safety of both the donor and the recipient. It requires comprehensive medical evaluations and legal consent processes.

• Hence, the correct answer is Both I and II.

Additional Information

• Organ Donation:

• Organ donation refers to the process of donating organs or tissues from a donor to a recipient. It can be done either after death (cadaveric donation) or by living donors.

• Living donors can donate organs like kidneys, part of the liver, or tissues such as bone marrow, provided they meet strict medical criteria.

• Organ donations save lives, especially in cases of chronic organ failure such as kidney or liver failure.

• Liver Donation:

• The liver is the only organ in the human body capable of regenerating itself. This allows living donors to donate a portion of their liver, which regrows to its normal size in both the donor and the recipient.

• Liver donation typically involves removing either the right or left lobe of the liver, depending on the size and needs of the recipient.

• Regeneration usually takes place within a few months of donation.

• Kidney Donation:

• Kidneys are vital for filtering waste and maintaining fluid balance in the body. Living individuals with healthy kidney function can donate one kidney.

• A kidney transplant is often the best treatment for end-stage renal disease (ESRD) or chronic kidney failure.

• Donors undergo extensive medical evaluations to ensure their remaining kidney can sustain normal kidney function.

• Legal and Ethical Guidelines:

• Organ donation is regulated under laws such as the Transplantation of Human Organs and Tissues Act, 1994, in India, which ensures ethical practices and prohibits organ trafficking.

• Donors must give informed consent, and medical professionals must ensure donors are not coerced or exploited.

• Both donor and recipient undergo psychological and medical evaluations to ensure a safe and ethical transplant process.

Important Points

• Eligibility for Living Donation:

• Donors must be in good physical and mental health, typically between the ages of 18 and 60 years.

• They must undergo rigorous medical tests, including blood tests, imaging scans, and psychological assessments.

• Living donors are often family members or close relatives of the recipient to reduce the risk of organ rejection.

• Statistics:

• Globally, living organ donation accounts for a significant portion of transplants. For example, in India, about 90% of kidney transplants come from living donors.

• Countries like the United States and South Korea also see high rates of living donation, particularly for kidney and liver transplants.

• Awareness Campaigns:

• Initiatives like National Organ Donation Day (celebrated annually on 27th November in India) aim to educate the public about the life-saving benefits of organ donation.

Q100. Answer: (d) defeating Avanti (Malwa) and annexing it to Magadh

The correct answer is defeating Avanti (Malwa) and annexing it to Magadh.

Key Points

• Shishunaga, the founder of the Shishunaga dynasty, ruled Magadh in ancient India and contributed significantly to its expansion.

• One of his most notable achievements was defeating Avanti (Malwa), a major kingdom that posed a significant threat to Magadh's dominance.

• After defeating Avanti, Shishunaga successfully annexed the kingdom to Magadh, thereby strengthening his empire and extending its boundaries to central India.

• The annexation of Avanti was crucial as it eliminated a key rival and allowed Magadh to emerge as the most powerful kingdom in northern India during that era.

• This victory paved the way for later rulers of Magadh, such as the Nanda dynasty and Maurya dynasty, to further expand the empire and establish its supremacy.

Additional Information

• Shishunaga Dynasty:

• The Shishunaga dynasty was established around 413 BCE and preceded the Nanda dynasty.

• Shishunaga initially served as a viceroy in Kashi before ascending to the throne of Magadh.

• The capital of his empire was Rajgir (formerly Girivraja), but he later moved it to Pataliputra.

• The dynasty laid the foundation for Magadh's political and cultural dominance in ancient India.

• Avanti Kingdom:

• Avanti was one of the major Mahajanapadas in ancient India, with its capital at Ujjain.

• It was a prosperous kingdom known for its trade, culture, and military strength.

• The defeat of Avanti by Shishunaga marked a turning point in the history of Magadh, as it consolidated power and resources from central India.

• First Buddhist Council:

• The first Buddhist council was held in Rajgir during the reign of King Ajatashatru, who preceded Shishunaga.

• This council was significant in compiling the teachings of Buddha into the Pali Canon, marking an important event in Buddhist history.

• While Shishunaga promoted Buddhism, the council itself was not held during his reign.

• Pataliputra Fort:

• Pataliputra was fortified by later rulers, including the Nanda and Maurya dynasties, rather than Shishunaga.

• Its strategic location at the confluence of the Ganga and Son rivers made it a prominent city in ancient India.

Important Points

• Magadh's Role in Indian History:

• Magadh was one of the sixteen Mahajanapadas, and its strategic location contributed to its emergence as a dominant political and cultural center.

• Under Shishunaga and subsequent dynasties, Magadh became the cradle for major religious movements such as Buddhism and Jainism.

• Historical Significance of Avanti's Defeat:

• The annexation of Avanti not only expanded Magadh's territory but also increased its influence over trade routes and resources in central India.

• This victory was instrumental in unifying northern and central India under a single political entity.

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