SSC CHSL Tier-1 2022: Official Paper (Held On: 09 March, 2023 Shift 2) (Previous Year Paper)

SSC Combined Higher Secondary Level (CHSL) • 2022 • 100 questions • 60 minutes • Answer key and solutions

Take this paper as a timed mock test

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

yourmocktest.com/pyq/ssc-chsl/ssc-chsl-tier-1-2022-official-paper-held-on-09-march-2023-shift…

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

ENGLISH LANGUAGE

Q1. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

ABC, EJN, IRY, ?, QHU

(a) MYJ
(b) MZJ
(c) MZK
(d) MZI

Q2. Words given on the left side of (::) are related with each other by some Logic/Rule /Relation. Select the missing word/word pair on the right side of (::) from the given alternatives based on the same Logic/Rule/Relation.

Aquarium : Fish :: ?

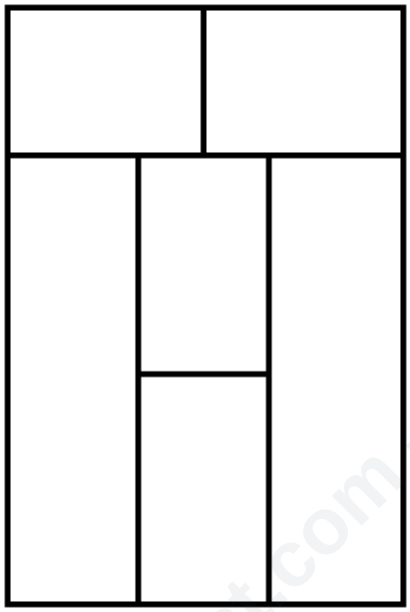
(a) Hive : Honeybee
(b) Aeroplane : Hangar
(c) Wine : Cellar
(d) Animals : Zoo

Q3. In a certain code language, ‘PROTEINS’ is coded as ‘119127591419’, ‘REFLECTS’ is coded as ‘9222115532019’. What is the code for ‘SCENARIO’ in that code language?

(a) 8242213118951
(b) 8242213118915
(c) 8242113128915
(d) 8242213119815

Q4. How many quadrilaterals are there in the given figure?

YourMockTest.com — Free Study Material



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

Q5. In the following question, select the odd letter/letters from the given alternatives.
(a) OSX
(b) IMQ
(c) FJN
(d) NRV

Q6. Select the option that is related to the sixth number in the same way as the first number is related to the second number and the third number is related to the fourth number.
11 : 81 :: 22 : 400 :: ? : 225
(a) 11
(b) 13
(c) 17
(d) 15

Q7. Select the correct mirror image of the given combination when the mirror is placed at line AB as shown.



(a)



(b)



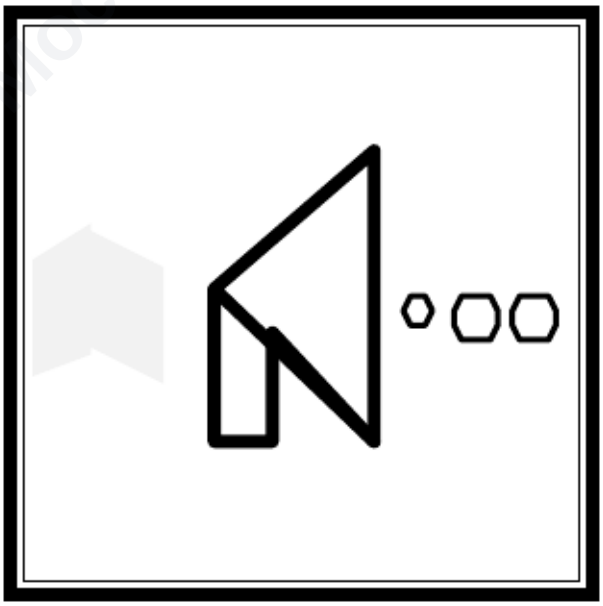
(c)



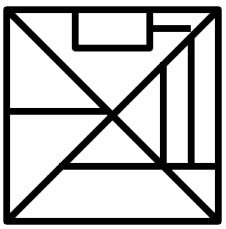
(d)



Q8. Select the option figure in which the given figure is embedded. (rotation is NOT allowed)

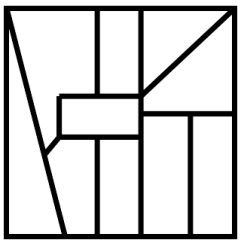


(a)

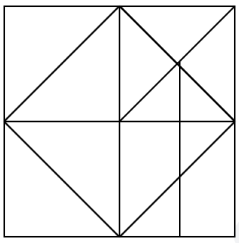


YourMockTest.com – Free Study Material

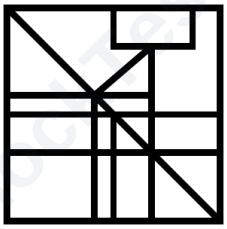
(b)



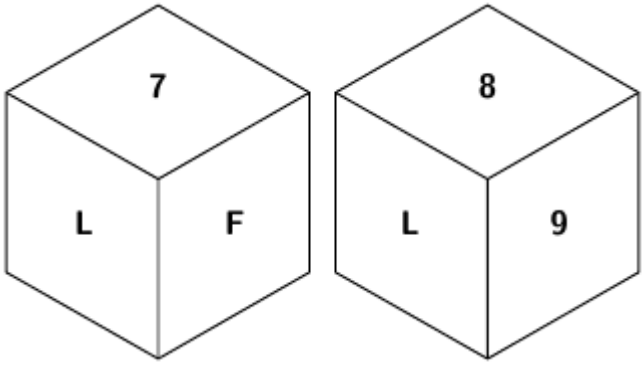
(c)



(d)



Q9. Two positions of a dice are given below. What can come on the adjacent faces of the face containing ‘F' on it?



(a) 8 and L
(b) 7 and 9
(c) 9 and 8
(d) L and 9

Q10. If 14 A 13 A 3 = 30 and 39 A 14 A 3 = 56, then 28 A 11 A 4 = ?

(a) 57
(b) 40
(c) 63
(d) 43

Q11. In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

Statements:

I. All N are Q.

II. Some H are Q.

YourMockTest.com — Free Study Material

Conclusion:

I. Some Q are N.

II. Some Q are H.

III. Some N are H.

(a) Only conclusion III follows

(b) Both conclusions I and II follows

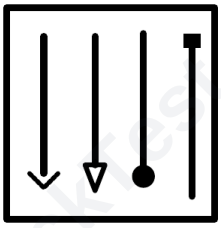
(c) Only conclusion II follows

(d) Both conclusions II and III follows

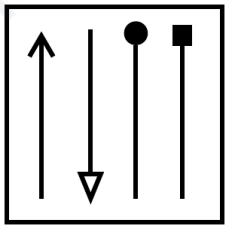
Q12. Select the figure from the given options that can replace the question mark (?) in the following series.



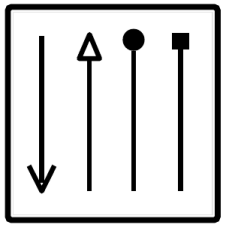
(a)



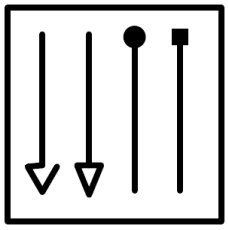
(b)



(c)



(d)



Q13. In the following question, select the missing number from the given series.

2, 3, 5, 7, 11, ?

(a) 19

(b) 16

(c) 20

(d) 13

YourMockTest.com — Free Study Material

Q14. Select the option in which the numbers shares the same relationship in set as that shared by the numbers in the given set. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(36, 99, 106)

(72, 207, 214)

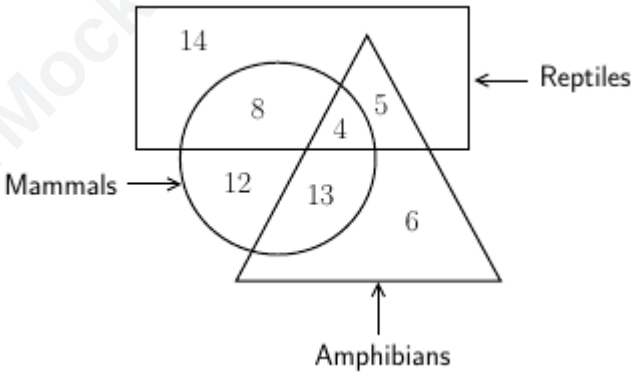
(a) (64, 193, 200)
(b) (48, 125, 132)
(c) (24, 63, 70)
(d) (52, 157, 164)

Q15. Words given on the left side of (::) are related with each other by some Logic/Rule /Relation. Select the missing word/word pair on the right side of (::) from the given alternatives based on the same Logic/Rule/Relation.

Dog : Four :: Parrot : ?

(a) Seven
(b) Four
(c) Two
(d) Six

Q16. How many reptiles are neither mammals nor amphibians?



(a) 14
(b) 13
(c) 12
(d) 9

Q17. Arrange the given words in the sequence in which they occur in the dictionary.

1. Taken
2. Tactless
3. Tackle
4. Tactful
5. Talent

(a) 24351
(b) 12543
(c) 34215
(d) 54132

Q18. H is the sister of I. B is the mother of H. J is the daughter of R. I is the sister of J. How is R related to H?

(a) Maternal Uncle
(b) Son in law
(c) Father
(d) Paternal Grandfather

Q19. In the following question, four number pairs are given. In each pair the number on left side of (–) is related to the number of the right side of (–) with some Logic/Rule /Relation. Three pairs are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(a) 108 – 1257912
(b) 102 – 1061208
(c) 106 – 1191016
(d) 104 – 1124864

Q20. In a certain code language, ‘MANAGE’ is coded as ‘HJDQDP’. What is the code for ‘LATTER’ in that code language?

(a) UHWWDO
(b) UHVVDO
(c) UHWXDO
(d) UHWWOD

Q21. Words given on the left side of (::) are related with each other by some Logic/Rule /Relation. Select the missing word/word pair on the right side of (::) from the given alternatives based on the same Logic/Rule/Relation.

Editor : Newspaper :: ?

(a) Design : Architect
(b) Food : Chef
(c) Poem : Poet
(d) Farmer : Crop

Q22. In the following question, four number pairs are given. In each pair the number on left side of (–) is related to the number of the right side of (–) with some Logic/Rule /Relation. Three pairs are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

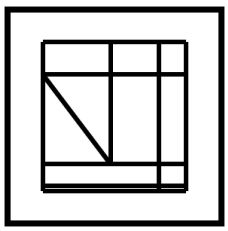
(a) 638 – 2552
(b) 618 – 2472
(c) 1074 – 4396
(d) 508 – 2032

Q23. Select the option figure in which the given figure is embedded. (rotation is NOT allowed)

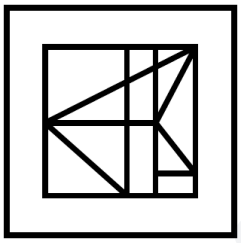


YourMockTest.com — Free Study Material

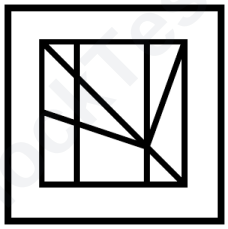
(a)



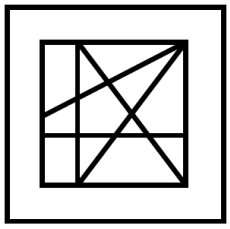
(b)



(c)



(d)



Q24. By Interchanging the given two numbers (Not digits) which of the following equation will be correct?

4 and 3

(a) 3 × 4 ÷ 2 + 7 = 17
(b) 7 × 4 + 3 ÷ 1 = 30
(c) 4 + 3 × 7 – 2 = 29
(d) 4 × 3 + 7 – 5 = 16

Q25. In the following question, select the odd word pair from the given alternatives.

(a) New Delhi – India
(b) Beijing – China
(c) Dhaka – Bangladesh
(d) Lahore – Pakistan

GENERAL INTELLIGENCE

Q26. Which of the following statement is correct regarding large dams?

I. They have social problems because they displace large number of peasants and tribals without adequate compensation or rehabilitation.

II. They have Environmental problems because they contribute enormously to deforestation and the loss of biological diversity.

YourMockTest.com — Free Study Material

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

Q27. Which among the following companies fired about 300 employees under allegations of moonlighting in September 2022?
(a) MindTree
(b) Amazon India
(c) Wipro
(d) Microsoft India

Q28. Which of the following two teams played in the final match of season 8 of PKL?
(a) Dabang Delhi vs. Patna Pirates
(b) Bengal Warriors vs. Patna Pirates
(c) Dabang Delhi vs. Bengal Warriors
(d) Dabang Delhi vs. Bengaluru Bulls

Q29. Which famous male lawn tennis player retired in September 2022?
(a) Roger Federer
(b) Rafael Nadal
(c) Novak Djokovic
(d) Carlos Alcaraz

Q30. In India, what is the total length of the coastline of the mainland, including Andaman and Nicobar and Lakshadweep?
(a) 8,514.4 km
(b) 7,818.7 km
(c) 11098.81 km
(d) 8,123.1 km

Q31. Who is famously known as sitar maestro in India?
(a) Maharshi Patanjali
(b) Pt. Ravi Shankar
(c) Ustad Bismillah khan
(d) Sitara Devi

Q32. Which Indian financial institution protects investors in a stock market?
(a) Bombay Stock Exchange
(b) Reserve Bank of India
(c) Securities and Exchange Board of India
(d) National Stock Exchange

Q33. Which of the following was the capital of Pallavas?
(a) Aihole
(b) Puhar
(c) Raichur Doab
(d) Kanchipuram

Q34. The Industrial Policy Resolution of 1956 formed the basis of the _____.
(a) Fifth Five Year plan
(b) Second Five Year plan
(c) Fourth Five Year plan
(d) Third Five Year plan

YourMockTest.com — Free Study Material

Q35. Which of the following colloid is an example of foam?

(a) Sponge
(b) Butter
(c) Cheese
(d) Mist

Q36. Which of the following shortcut key is used to switch to print preview in MS-Word 365?

(a) Ctrl + Alt + P
(b) Ctrl + Alt + I
(c) Alt + P
(d) Alt + I

Q37. Which state among the following has the largest reserves of gold ore in India as of 2021?

(a) Jharkhand
(b) Rajasthan
(c) Bihar
(d) Karnataka

Q38. Which river of India drains into Bay of Bengal?

(a) Mahi
(b) Narmada
(c) Godavari
(d) Tapi

Q39. What is used for holding program instructions that can't be changed throughout the life of the computer?

(a) ROM
(b) Register
(c) RAM
(d) Cache

Q40. The famous monument, Aram Bagh, was built by Babur. It is located in _____.

(a) Delhi
(b) Uttar Pradesh
(c) Madhya Pradesh
(d) Bihar

Q41. In which state did PM Narendra Modi laid the foundation stone for Bulk Drug Park in October 2022?

(a) Bihar
(b) Himachal Pradesh
(c) Punjab
(d) Uttarakhand

Q42. Which of the following comes under Union List of 7th schedule of the Indian constitution?

(a) Public Health and sanitation
(b) Public order
(c) Hospitals and dispensaries
(d) Establishment of standards of weight and measure

Q43. Who led the Battle of Plassey on behalf of the British East India Company?

(a) Charles Stuart
(b) Warren Hastings
(c) Robert Clive
(d) James Lancaster

YourMockTest.com — Free Study Material

Q44. Which Indian writer wrote the famous book "Mansarovar"?

(a) Gita Sahgal
(b) Ram Prasad Bismil
(c) Premchand
(d) Yashpal

Q45. At high doses, _____ kills cancer cells or slows their growth by damaging their DNA. Cancer cells whose DNA is damaged beyond repair stop dividing or die. When the damaged cells die, they are broken down and removed by the body.

(a) Chemotherapy
(b) Radiation therapy
(c) Surgery
(d) Physiotherapy

Q46. Which of the following articles of the Indian Constitution is related to the writ of the High Courts?

(a) 32
(b) 126
(c) 76
(d) 226

Q47. Which of the following river originates in Rajasthan?

(a) Mahi
(b) Narmada
(c) Tapi
(d) Banas

Q48. Which team won the 2021–22 I–League?

(a) Neroca FC
(b) Mohammedan SC
(c) Gokulam Kerala FC
(d) Rajasthan United

Q49. Which of the following has revamped the E-Baal Nidan online portal in September 2022?

(a) UNICEF India
(b) National Commission for Protection of Child Rights
(c) NITI Aayog
(d) Ministry of women and child development

Q50. Who is famously known as the father of Indian nuclear programme?

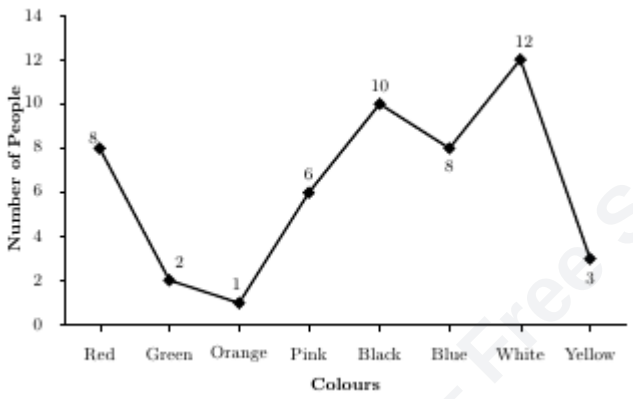
(a) Homi J. Bhabha
(b) Vikram Sarabhai
(c) C. V. Raman
(d) Venkatraman Radhakrishnan

QUANTITATIVE APTITUDE

Q51. The following line graph shows the favourite colour of a group of people.

What percent of the total number of people like black colour?

YourMockTest.com — Free Study Material

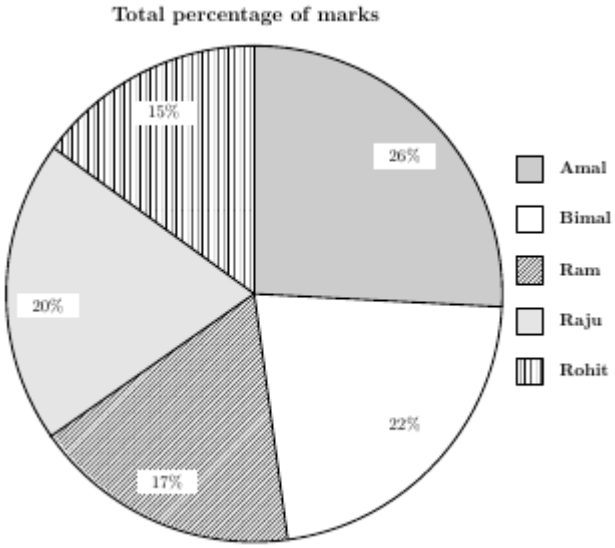


(a) 50%
(b) 20%
(c) 10%
(d) 33.3%

Q52. In ΔSTU, X and Y are the points on sides ST and SU respectively. XY is parallel to TU. If SX : XT = 2 : 5 and UY = 20 cm, then what is the value of SU?

(a) 24 cm
(b) 28 cm
(c) 32 cm
(d) 26 cm

Q53. The following pie chart reflects the total percentage of marks of 5 boys in an exam. The total marks for these boys in this the exam is 800. The marks of Rohit is how much percentage less than that of Raju ?



(a) 20%
(b) 30%
(c) 25%
(d) 33.33%

Q54. The circumference of base of a right circular cone is 88 cm. If the height of the cone is 28 cm, then what is the curved surface area of the cone?

(a) 670√3 cm²
(b) 616√5 cm²
(c) 627√3 cm²
(d) 661√5 cm²

YourMockTest.com — Free Study Material

Q55. Two circles of radius of 6 cm each. They intersect each other such that each passes through the centre of the other. What is the length of the common chord?

(a) 9√3 cm
(b) 12 cm
(c) 6√3 cm
(d) 8 cm

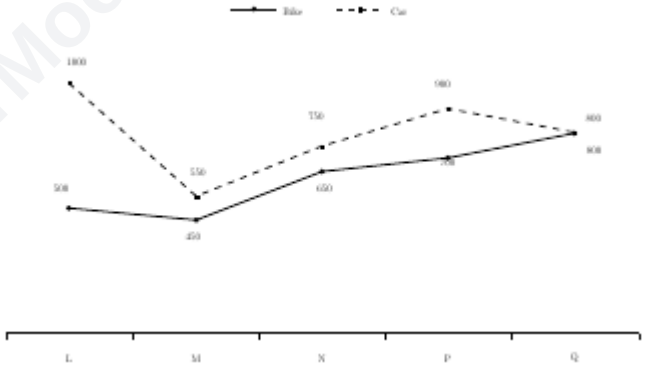
Q56. A person bought 80 pens at the rate of Rs. 80 per pen. He sells 40 pens at a loss of 20 per cent. If a profit of 20 per cent is earned on the all pens together, then what will be the profit percentage on the remaining 40 pens?

(a) 60 percent
(b) 80 percent
(c) 70 percent
(d) 90 percent

Q57. P and Q together can complete a work in 20 days. If Q alone can complete the work in 25 days, then in how many days P alone can complete the same work?

(a) 25 days
(b) 100 days
(c) 20 days
(d) 50 days

Q58. The line chart given below shows the sales of bikes and cars of five companies L, M, N, P and Q.



Which of the following statement is correct?

I. The sales of bikes of company L and M together is 45.88 percent of the sales of cars of company P and Q together.

II. The total sales of bikes is 77.5 percent of the total sales of cars.

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

Q59. Circumference of a circle is 88 cm. Chord XY makes an angle of 90 degree at the circumference of this circle. What is the length of XY?

(a) 42 cm
(b) 28 cm
(c) 14 cm
(d) 21 cm

Q60. What is the value of the expression 1 - 2 + 3 - 4 + 5 - 6 ..... to 100 terms?

(a) -50
(b) -55
(c) -49
(d) -60

YourMockTest.com — Free Study Material

Q61. What is the value of (1/1÷ 1/2× 1/2+1/2× 1/2÷1/2)/(1/4×1/4÷1/2+1/4÷ 1/4× 1/2-1/4÷ 1/2× 1/2) ?

(a) 8
(b) 2
(c) 4
(d) 1

Q62. If angle subtended by a chord on the major arc of a circle is 55 degree, then what will be the angle subtended by the same chord on the centre of the circle?

(a) 125 degree
(b) 140 degree
(c) 135 degree
(d) 110 degree

Q63. 20 percent of A's income is equal to 10 percent of B's income. If A's income is Rs. 2550, then what is B's income?

(a) Rs. 5000
(b) Rs. 7650
(c) Rs. 5100
(d) Rs. 4900

Q64. What is the value of (tan A-sin A)/(tan A+sin A)?

(a) 1
(b) (sec A+1)/(sec A-1)
(c) (sec A-1)/(sec A+1)
(d) sec A

Q65. Rohit buys a ball for Rs. 700. Rohit gives two successive discounts of 20 percent and 40 percent to the customer on this ball. What will be the selling price of the ball?

(a) Rs. 372
(b) Rs. 336
(c) Rs. 442
(d) Rs. 325

Q66. The average age of 120 members of a society is 62.5 years. By the addition of 30 new members, the average age becomes 58.2 years, What is the average age of newly joined members?

(a) 40 years
(b) 41 years
(c) 39 years
(d) 42 years

Q67. Rahul spends some part of his income and saves the remaining part. The ratio of his expenditure and saving is 5 : 4. If Rahul's income is Rs. 36000, then what will be his expenditure?

(a) Rs. 15000
(b) Rs. 25000
(c) Rs. 20000
(d) Rs. 16000

Q68. If cos B=5/9, then what is the value of cosec B?

(a) 9/2√14
(b) 9/√14
(c) 4/√14
(d) 5/√14

YourMockTest.com — Free Study Material

Q69. A sum of money at simple interest amounts to Rs. 403 in 3 years at the rate of 10% per annum, What is the value of the sum?

(a) Rs. 400
(b) Rs. 380
(c) Rs. 310
(d) Rs. 345

Q70. If x^4+1/(x^4)=47, then what is the value of $x^3+1/(x^3)$?

(a) 18
(b) 9
(c) 27
(d) 36

Q71. The average weight of 20 persons is 60 kg. A new person joins the group and the average weight of 21 persons becomes 59 kg. What will be the weight of new person?

(a) 41 kg
(b) 29 kg
(c) 39 kg
(d) 40 kg

Q72. What is (√(1-sin A))/(√(1+sin A)) ?

(a) $\sec^2 A$
(b) sec A + tan A
(c) $\tan^2 A$
(d) sec A - tan A

Q73. If K+1/K-2=0 and K > 0, then what is the value of $K^{(17)}+1/(K^{12})$?

(a) 2
(b) 1
(c) 0
(d) 12

Q74. A car covers a distance of 40 km in 24 minutes. If its speed is decreased by 40 km/hr, then what will be the time taken by it to cover the same distance?

(a) 48 minutes
(b) 36 minutes
(c) 45 minutes
(d) 40 minutes

Q75. The table given below shows production of car by two companies J and K in 5 years.

	Companies	
Years	J	K
A	120	50
B	80	60
C	40	120
D	30	100
E	20	70

L1 = The total production of car by J in all years.

L2 = The total production of car by K in all years.

What is the value of (L2 - L1)?

(a) 110

YourMockTest.com — Free Study Material

(b) 90
(c) 70
(d) 140

GENERAL AWARENESS

Q76. Select the correct indirect form of the given sentence.

Aditi said, “I am not invested in the project anymore.”

(a) Aditi said that she had not invested in the project anymore.
(b) Aditi said that she is not invested in the project anymore.
(c) Aditi said that she was not invested in the project anymore.
(d) Aditi said that she do not invested in the project anymore.

Q77. In the following question, out of the given four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase.

To burn one’s finger

(a) To suffer a loss by acting rashly
(b) To accidentally touch a hot utensil
(c) A question without any agreed answer
(d) To have one’s finger chopped

Q78. Choose the word that means the same as the given word.

Slick

(a) Novice
(b) Fractions
(c) Slippery
(d) New

Q79. Choose the word that can substitute the given group of words.

Compulsory enlistment for military service

(a) Militaristic
(b) Conscription
(c) Armament
(d) Abdication

Q80. Choose the sentence with no spelling error.

(a) Lites flickered in the bussh behind him.
(b) Lights flicered in the bush behind him.
(c) Lights flikered in the bush behind him.
(d) Lights flickered in the bush behind him.

Q81. Choose the option that is the correct passive form of the sentence.

The culture was losing its meaning.

(a) The culture lost it's meaning.
(b) The meaning of the culture was lost.
(c) The meaning of the culture was being lost.
(d) The meaning of the culture will lost.

Q82. Rearrange the parts of the sentence in correct order.

P. fish, or other potential food item that happen
Q. to be floating by with stinging cells called nematocysts
R. at night and capture tiny organisms like zooplankton, small
S. corals are predators and they extend their tentacles

YourMockTest.com - Free Study Material

(a) RSPQ
(b) RPQS
(c) PQRS
(d) SRPQ

Q83. Fill in the blank with the most suitable word.

Remember that, little sister: wait for a man to _____ your honour, and you'll wait forever.

(a) comfort
(b) cheer
(c) repeal
(d) avenge

Q84. Choose the word that can substitute the given group of words.

A specialist of kidney

(a) Obstetrician
(b) Nephrologist
(c) Pathologist
(d) Primatologist

Q85. Choose the word that means the same as the given word.

Laggard

(a) Prompt
(b) Hustler
(c) Dawdling
(d) Expeditious

Q86. Select the most appropriate meaning of the given idiom.

A shot in the dark.

(a) Shooting in the night
(b) Randomly doing something, the outcome of which is unknown
(c) A blind man's cane
(d) Looking at the stars

Q87. Improve the underlined part of the sentence. Choose 'No improvement' as an answer if the sentence is grammatically correct.

The Government has been building more schools to provided education at the secondary level.

(a) provide education at
(b) provide educationally on
(c) providing education to
(d) No improvement

Q88. Improve the underlined part of the sentence. Choose 'No improvement' as an answer if the sentence is grammatically correct.

She cuts her haired short in the summer.

(a) hair short
(b) hairy short
(c) No improvement
(d) hair shortest

Q89. Select the option that will improve the underlined part of the sentence. In case no improvement is needed, select 'No improvement'.

Herbalism had become an all but extinct skill in the Western world.

(a) No improvement
(b) Herbalism has become but all an extinct skill

YourMockTest.com — Free Study Material

(c) Herbalism become an extinct skill
(d) Herbalism has become but an extinct skill

Q90. Choose the word that means the same as the given word.

Sacrilege

(a) Blasphemy
(b) Modification
(c) Consecration
(d) Reverence

Q91. Fill in the blank with an appropriate option.

One of his rules was to always _____ and await instruction to enter.

(a) knock
(b) rub
(c) blink
(d) resist

Q92. Choose the incorrectly spelt word.

(a) Clovver
(b) Sharpen
(c) Sunrise
(d) Happen

Q93. Identify the segment in the sentence which contains a grammatical error. If there is no error, then select the option "No error".

Today, in fit of frenzied rage and / jealousy, you would have/ killed me, your brother.

(a) killed me, your brother.
(b) No error
(c) jealousy, you would have
(d) Today, in fit of frenzied rage and

Q94. Choose the word that is opposite in meaning to the given word.

Accessory

(a) Substitute
(b) Surplus
(c) Essential
(d) Option

Q95. Find the part of the given sentence that has an error in it. If there is no error, choose ‘No error’.

India has turned 70 year older as a Republic.

(a) 70 year older
(b) as a Republic.
(c) No error
(d) India has turned

Directions

Direction: In the following passage some of the words have been deleted. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

In a new study (1)____in Nature Human Behaviour, we have now shown that, in 2021, (2)__ expectancy rebounded somewhat in most western European countries (3)__ eastern Europe and the US witnessed additional losses. However, only Norway (4) __ its pre-pandemic life expectancy in 2021, and everywhere is worse off than it would (5) ____ have been without the pandemic.

YourMockTest.com — Free Study Material

Q96. Select the most appropriate option to fill in blank number 1.

(a) published
(b) registered
(c) surrounded
(d) established

Q97. Select the most appropriate option to fill in blank number 2.

(a) game
(b) animal
(c) hunger
(d) life

Q98. Select the most appropriate option to fill in blank number 3.

(a) while
(b) as
(c) so
(d) behind

Q99. Select the most appropriate option to fill in blank number 4.

(a) probes
(b) lifts
(c) beats
(d) clubs

Q100. Select the most appropriate option to fill in blank number 5.

(a) shortly
(b) likely
(c) nicely
(d) bluntly

ANSWER KEY

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

SOLUTIONS

Q1. Answer: (b) MZJ

The logic followed here is:

So, 'MZJ' will complete the series.

Hence the correct answer is "MZJ".

YourMockTest.com — Free Study Material

Q2. Answer: (a) Hive : Honeybee

The logic followed here is:

Logic: The first term is a place or enclosure where the second term lives or is kept.

Now,

Aquarium : Fish → An aquarium is a place where fish are kept.

Similarly,

Hive : Honeybee → hive is a place where honeybees live.

Hence, the correct answer is "Option 1".

Additional Information

Aeroplane : Hangar → A hangar is a place where aeroplanes are stored, not where they live.

Wine : Cellar → A cellar is a place where wine is stored, not where it lives.

Animals : Zoo → A zoo is a place where animals are kept.

Q3. Answer: (b) 8242213118915

The logic followed here is:

'PROTEINS' is coded as '119127591419'.

'REFLECTS' is coded as '9222115532019'.

Similarly, for SCENARIO:

So, 'SCENARIO' is coded as '8242213118915'.

Hence, the correct answer is "Option 2".

Q4. Answer: (b) 12

The quadrilaterals are:

So, there are '12' quadrilaterals in the given figure.

Hence, the correct answer is "Option 2".

Q5. Answer: (a) OSX

The logic followed here is:

Option 1) OSX

Option 2) IMQ

Option 3) FJN

Option 4) NRV

Here, All the options except 'OSX' followed a pattern.

Hence, the correct answer is "Option 1".

Q6. Answer: (c) 17

The logic followed here is:

Logic: (1st number - 2)² = 2nd number.

Now,

11 : 81

→ (11 - 2)² => 9² = 81.

22 : 400

→ (22 - 2)2 => 202 = 400.

Similarly, for ? : 225

→ (17 - 2)2 => 152 = 225.

Hence, the correct answer is "Option 3".

Q7. Answer: (d) [figure]

The correct mirror image of the given figure when the mirror is held at the right side is:

Hence, "Option 4" is the correct answer.

Additional InformationIn Mirror image left side and right side changed vice-versa where top and bottom remain same.

Reflection of an object into the water is its water image. It appears by inverting an object vertically i.e. upside down.

The water image of the figure looks like the mirror image of the figure in case the mirror is horizontally at the bottom of the figure.

YourMockTest.com — Free Study Material

Water image is just a reflection where top and bottom part of the images changed where left and right side of the image remain same.

Q8. Answer: (d) [figure]

The embedded image is:

Hence, the correct answer is "Option 4".

Q9. Answer: (a) 8 and L

From the given dice:

L is the common letter in both Dice,

So, 7 is the opposite surface of 8.

and, F and 9 is the opposite surface.

Face	L	7	F
Opposite Surface	L	8	9

Therefore, among the given options, 8 and L will be the adjacent surface of 'F'.

Hence, the correct answer is "Option 1".

Q10. Answer: (d) 43

The logic followed here is:

Consider A as Plus.

Then,

14 A 13 A 3 = 30

→ 14 + 13 + 3 = 30.

and,

39 A 14 A 3 = 56

→ 39 + 14 + 3 = 56.

Similarly,

28 A 11 A 4 = ?

→ 28 + 11 + 4 = 43.

Hence, the correct answer is "43".

Q11. Answer: (b) Both conclusions I and II follows

Given Statements:

I. All N are Q.

II. Some H are Q.

The least possible Venn diagram for the given statement:

Conclusion:

I. Some Q are N - True (Because All N are Q, so some Q are also N).

II. Some Q are H - True (Because Some H are Q, it means Some Q are also H).

III. Some N are H - False (Because there is no direct relation given between N and H, so it can be possible only).

So, Both conclusions I and II follows.

Hence, the correct answer is "Option 2".

Q12. Answer: (d) [figure]

The logic followed here is:

Step I: The line with triangle is shifting in previous place and changed vertically in alternate place.

Step II: The line with circle is shifting in previous place and changed vertically in alternate place.

Step III: The line with square box is shifting in previous place and changed vertically in alternate place.

Step IV: The line with triangle is shifting in previous place and changed vertically in alternate place.

So, the complete series will be:

So, 'Option 4' will replace the question mark.

Hence, the correct answer is "Option 4".

YourMockTest.com — Free Study Material

Q13. Answer: (d) 13

The logic followed here is:
Logic: The given numbers are in Prime number order.
Series are: 2, 3, 5, 7, 11 and the next Prime number is 13.
So, 13 will complete the given series.
Hence, the correct answer is "Option 4".
Additional Information Prime numbers 1 to 100:

Q14. Answer: (c) (24, 63, 70)

The logic followed here is:
Logic: 1st number × 3 - 9 = 2nd number,
2nd number + 7 = 3rd number.
Here,
(36, 99, 106)
=> 36 × 3 - 9 = 108 - 9 = 99,
=> 99 + 7 = 106.
(72, 207, 214)
=> 72 × 3 - 9 = 216 - 9 = 207,
=> 207 + 7 = 214.
Similarly,
(24, 63, 70)
=> 24 × 3 - 9 = 72 - 9 = 63,
=> 63 + 7 = 70.
Hence, the correct answer is "Option 3".

Q15. Answer: (c) Two

The logic followed here is:
Dog : Four → A dog has four legs.
Similarly,
Parrot → A parrot has two legs.
Hence, the correct answer is "Option 3".

Q16. Answer: (a) 14

According to the given Venn diagram:
The shaded area shows "the reptiles are neither mammals nor amphibians".
So, there are 14 reptiles are neither mammals nor amphibians.
Hence, the correct answer is "14".

Q17. Answer: (c) 34215

The correct order according to the English dictionary is:
3. Tackle
4. Tactful
2. Tactless
1. Taken
5. Talent
Here, the correct sequence will be: '34215'.
Hence, the correct answer is "Option 3".

Q18. Answer: (c) Father

Family Chart:
Given: H is the sister of I. B is the mother of H. J is the daughter of R. I is the sister of J.
So, R is Father of H.
Hence, the correct answer is "Option 3".

YourMockTest.com — Free Study Material

Q19. Answer: (a) 108 – 1257912

The logic followed here is:

Logic: (1st number)^3 = 2nd number.

Option 1) 108 – 1257912

→ $108^3 = 1259712 \neq 1257912$.

Option 2) 102 – 1061208

(102)3 = 1061208

Option 3) 106 – 1191016

$(106)^3 = 1191016$.

Option 4) 104 – 1124864

$(104)^3=1124864$.

So, '108 – 1257912' odd among the options.

Hence, the correct answer is "Option 1".

Q20. Answer: (a) UHWWDO

The logic followed here is:

'MANAGE' is coded as 'HJDQDP'.

Similarly, for LATTER:

So, LATTER will be coded as UHWWDO.

Hence, the correct answer is "Option 1".

Q21. Answer: (d) Farmer : Crop

The logic followed here is:

Logic: The first word is the person responsible for producing or overseeing the creation of the second word.

Editor : Newspaper → An editor is responsible for overseeing the creation of a newspaper.

Similarly,

Farmer : Crop → A farmer is responsible for growing crops.

Hence, the correct answer is "Option 4".

Additional Information

Design : Architect → An architect is responsible for creating a design.

Food : Chef → A chef is responsible for preparing food.

Poem : Poet → A poet is responsible for creating a poem.

Q22. Answer: (c) 1074 – 4396

The logic followed here is:

Logic: 1st number × 4 = 2nd number.

Option 1) 638 – 2552

→ 638 × 4 = 2552.

Option 2) 618 – 2472

→ 618 × 4 = 2472.

Option 3) 1074 – 4396

→ 1074 × 4 = 4296 ≠ 4396.

Option 4) 508 – 2032

→ 508 × 4 = 2032.

So, '1074 – 4396' odd among the options.

Hence, the correct answer is "Option 3".

Q23. Answer: (d) [figure]

The figure embedded is:

Hence, the correct answer is "Option 4".

Q24. Answer: (c) 4 + 3 × 7 – 2 = 29

BODMAS Table:

YourMockTest.com — Free Study Material

Given: By Interchanging '4 and 3' and checking the option:

Option 1) 3 × 4 ÷ 2 + 7 = 17

After interchanging '4 and 3':

=> 4 × 3 ÷ 2 + 7 = 17

=> 4 × 1.5 + 7 = 17

=> 6 + 7 = 17

=> 13 ≠ 17.

Option 2) 7 × 4 + 3 ÷ 1 = 30

'4 and 3'

=> 7 × 3 + 4 ÷ 1 = 30

=> 7 × 3 + 4 = 30

=> 21 + 4 = 30

=> 25 ≠ 30.

Option 3) 4 + 3 × 7 – 2 = 29

'4 and 3'

=> 3 + 4 × 7 – 2 = 29

=> 3 + 28 – 2 = 29

=> 31 - 2 = 29

=> 29 = 29.

Option 4) 4 × 3 + 7 – 5 = 16

'4 and 3'

=> 3 × 4 + 7 – 5 = 16

=> 12 + 7 – 5 = 16

=> 19 - 5 = 16

=> 14 ≠ 16.

Hence, the correct answer is "Option 3".

Q25. Answer: (d) Lahore – Pakistan

The logic followed here is:

Logic: The first term in each pair is the capital city of the country represented by the second term.

Option 1) New Delhi – India → New Delhi is the capital of India.

Option 2) Beijing – China → Beijing is the capital of China.

Option 3) Dhaka – Bangladesh → Dhaka is the capital of Bangladesh.

Option 4) Lahore – Pakistan → Lahore is not the capital of Pakistan, The capital of Pakistan is Islamabad.

Hence, the correct answer is "Option 4".

Q26. Answer: (b) Both I and II

The correct answer is 2) Both I and II.

Key PointsUnderstanding the statements in relation to large dams

• Social Problems

• Large dams have significant social impacts, particularly on the lives of peasants and tribal communities.

• The construction of large dams often necessitates the displacement of large populations from their ancestral lands.

• Many affected individuals and communities face inadequate compensation and lack proper rehabilitation plans. Hence statement I is correct.

• Environmental Problems

• The construction and operation of large dams can have profound environmental consequences.

• They often lead to extensive deforestation, which in turn reduces biodiversity by destroying habitats.

• This loss of forests and biological diversity can disrupt local ecosystems and contribute to larger environmental issues. Hence statement II is correct.

Additional Information

• Impacts on Local Communities

• The construction of large dams can disrupt local economies that are dependent on traditional practices and occupations.

• The disruption can lead to long-term socio-economic challenges for the displaced populations.

YourMockTest.com — Free Study Material

• Hydrological Changes

• Large dams alter the natural flow of rivers, which can impact the water availability downstream.

• These hydrological changes can negatively affect agriculture, fisheries, and the natural sediment transport, leading to further environmental degradation.

Q27. Answer: (c) Wipro

The correct answer is Option 3.

Key Points

• Wipro fired 300 employees for moonlighting.

• The IT company could have sacked these employees after finding out about their second job through UAN numbers.

• Wipro chairman Rishad Premji said the company has no place for employees working with rivals.

Additional Information

• Wipro Limited is a multinational corporation headquartered in Bangalore, India.

• It is a global information technology, consulting, and business process services company that provides solutions to various industries, including banking, finance, insurance, healthcare, manufacturing, retail, and telecommunications.

• Wipro was founded in 1945 by M.H. Premji as a manufacturer of vegetable and refined oils. In the 1980s, Wipro shifted its focus to IT services and software development.

• Mindtree Limited is a global technology consulting and services company headquartered in Bangalore, India.

• The company provides end-to-end services in the areas of cloud, data analytics, digital transformation, enterprise application development, testing, infrastructure management, and engineering services to clients across various industries, including banking, financial services, insurance, retail, consumer packaged goods, and manufacturing.

• Mindtree was founded in 1999 by ten industry professionals, including Ashok Soota, Subroto Bagchi, and Krishnakumar Natarajan, with an initial focus on the software development services market.

• Amazon India is a subsidiary of Amazon.com, Inc., the world's largest online retailer.

• Amazon launched its operations in India in 2013, and since then, it has grown rapidly to become one of the largest e-commerce platforms in the country.

• Amazon India offers a wide range of products, including books, electronics, clothing, beauty products, and household items, among others. The company has also introduced various services, such as Amazon Prime, which offers free and fast delivery, streaming of movies and TV shows, and exclusive deals and discounts to its subscribers.

• Microsoft India is a subsidiary of Microsoft Corporation, a multinational technology company headquartered in Redmond, Washington, USA.

• Microsoft India was established in 1990.

• Microsoft India has established various innovation centers and labs to support research and development in emerging technologies such as artificial intelligence, machine learning, and the internet of things.

• The company has also launched various initiatives to promote digital literacy and skills development in India, including the Microsoft India AI School, which offers free online courses in artificial intelligence and machine learning.

Q28. Answer: (a) Dabang Delhi vs. Patna Pirates

The correct answer is Option 1.

Key Points

• Dabang Delhi pulled off a coup on Friday as it beat Patna Pirates 37-36 to clinch its maiden Pro Kabaddi League (PKL) title.

• Delhi was narrowly beaten by Bengal Warriors in last season's final, but coach Krishan Hooda’s men dazzled on the second time of asking.

• Naveen Kumar and Vijay's raiding brilliance came to the side's aid once more as the duo bagged Super 10s and scored a total of 27 points - 73 per cent of their team’s total points.

• The defence managed all of four points, Sandeep Narwal and Manjeet Chhillar managed two each.

Additional Information

• PKL stands for Pro Kabaddi League, which is a professional league for the sport of Kabaddi in India.

• The league was founded in 2014, and since then, it has grown rapidly in popularity, making it one of the most-watched sports leagues in India.

• The Pro Kabaddi League consists of teams representing various cities in India, and the league follows a franchise model similar to other professional sports leagues.

• The league features both men's and women's teams, and the teams compete in a round-robin format followed by playoffs.

• The Pro Kabaddi League has been instrumental in the growth of Kabaddi as a sport in India.

• The league has helped to popularize the sport beyond its traditional strongholds and has attracted a new generation of fans to

the sport.

• The league has also helped to create opportunities for professional Kabaddi players in India and has provided a platform for them to showcase their skills.

• The Pro Kabaddi League has also been a major commercial success, with major corporate sponsors and advertisers supporting the league.

• The league has also attracted investment from prominent Indian and international investors, including Bollywood actor Abhishek Bachchan and Ratan Tata, the former chairman of Tata Sons.

• The Pro Kabaddi League has also been recognized for its commitment to social responsibility and sustainability.

Q29. Answer: (a) Roger Federer

The correct answer is Option 1.

Key Points

• Roger Federer is the latest star to retire from the sport.

• The Swiss maestro announced his decision to call time on his career a few weeks ago, and the 2022 Laver Cup was the scene where he played the final match of his career.

• Roger Federer is a professional tennis player from Switzerland, widely regarded as one of the greatest players of all time.

• He has won a record 20 Grand Slam singles titles, including eight Wimbledon titles, and has spent over 300 weeks as the world No. 1 ranked player.

• Federer has also won a gold medal in doubles at the 2008 Beijing Olympics and a silver medal in singles at the 2012 London Olympics.

• He is known for his elegant playing style, exceptional shot-making ability, and sportsmanship on and off the court.

Additional Information

• Rafael Nadal is a professional tennis player from Spain and is widely regarded as one of the greatest tennis players of all time.

• He has won 20 Grand Slam singles titles, tied with Roger Federer for the most in men's tennis history, and has won the French Open a record 13 times.

• Nadal has also won two Olympic gold medals, one in singles at the 2008 Beijing Olympics and the other in doubles at the 2016 Rio Olympics. Known for his tenacious play, Nadal is considered one of the best clay court players of all time and has had success on all surfaces.

• Off the court, he is known for his philanthropic work, particularly with his foundation which focuses on education and social integration for disadvantaged youth.

• Novak Djokovic is a professional tennis player from Serbia and is currently ranked as the world No. 1 in men's singles tennis by the Association of Tennis Professionals (ATP).

• He has won 20 Grand Slam singles titles, tied with Rafael Nadal and Roger Federer for the most in men's tennis history. Djokovic has won all four Grand Slam tournaments at least twice, including nine Australian Open titles, five Wimbledon titles, three US Open titles, and two French Open titles.

• He is also a five-time ATP Finals champion and has won a total of 84 career ATP singles titles.

• Djokovic is known for his exceptional flexibility, court coverage, and return of serve.

• He is considered one of the best returners in the history of the game and has a strong all-court game that allows him to succeed on all surfaces.

• Carlos Alcaraz is a young professional tennis player from Spain.

• He was born on May 5, 2003, and has quickly established himself as one of the most promising talents in the sport.

• Alcaraz turned professional in 2018 and has since won two ATP Challenger titles, as well as his first ATP Tour title at the age of 18 in Umag, Croatia, in July 2021.

• He is known for his aggressive playing style and powerful groundstrokes, particularly his forehand. Alcaraz has been compared to his fellow Spaniard Rafael Nadal, and many tennis experts consider him to be one of the future stars of the sport.

Q30. Answer: (c) 11098.81 km

The correct answer is Option 3.

Key Points

• The total length of the coastline of India's mainland, including the coastlines of the Andaman and Nicobar Islands and Lakshadweep Islands, is approximately 11098.81km according to the Ministry of Environment, Forests and Climate Change, Government of India.

• This coastline stretches along the Arabian Sea to the west, the Bay of Bengal to the east, and the Indian Ocean to the south.

• It is important to note that the exact length of the coastline can vary depending on the method used to measure it, as coastlines are often complex and irregular.

Additional Information

• The Andaman and Nicobar Islands are located in the Bay of Bengal, on the southeastern coast of India.

• They are a group of islands consisting of 572 islands, of which only 38 are inhabited.

• The Andaman Islands are to the north of the Nicobar Islands and are separated by the Ten Degree Channel.

• The capital city of the Andaman and Nicobar Islands is Port Blair, located on the Andaman Islands.

• The islands are known for their pristine beaches, crystal-clear waters, and diverse flora and fauna.

Q31. Answer: (b) Pt. Ravi Shankar

The correct answer is Option 2.

Key Points

• Ravi Shankar is famously known as the sitar maestro in India.

• He was a legendary musician and composer who was born in Varanasi, India in 1920 and passed away in 2012.

• Shankar was known for popularizing Indian classical music in the West and was a major influence on the "psychedelic" rock music of the 1960s.

• He collaborated with a number of Western musicians, including George Harrison of The Beatles, and was awarded several prestigious awards during his lifetime, including the Bharat Ratna, India's highest civilian award.

• Shankar is regarded as one of the most important figures in the history of Indian classical music and his legacy continues to influence musicians around the world.

Additional Information

• Maharshi Patanjali was a revered ancient Indian sage who is believed to have compiled the Yoga Sutras, a collection of 196 aphorisms that provide guidance on the practice and philosophy of yoga.

• The exact date of Patanjali's birth and death is not known, but he is believed to have lived in India during the 2nd century BCE or earlier.

• Patanjali is also revered as the founder of classical Ayurveda, a system of traditional medicine that emphasizes the balance of body, mind, and spirit.

• In addition to his contributions to yoga and Ayurveda, Patanjali is also known for his commentary on the Sanskrit grammar of Panini, known as the Mahabhashya.

• Patanjali's teachings have had a profound impact on the spiritual and philosophical traditions of India, and his legacy continues to influence millions of people around the world today.

• Ustad Bismillah Khan was a legendary Indian musician who is widely regarded as one of the finest shehnai players of all time.

• He was born in 1916 in the small town of Dumraon in Bihar, India, and grew up in the city of Varanasi, which is known for its rich musical heritage.

• Khan began playing the shehnai, a traditional Indian wind instrument, at a young age and quickly gained a reputation for his skill and virtuosity.

• He went on to become one of the most celebrated musicians in India, performing for audiences around the world and receiving numerous awards and accolades for his contributions to music.

• Khan was also known for his dedication to preserving and promoting traditional Indian music, and he played a key role in popularizing the shehnai as a solo instrument.

• He passed away in 2006 at the age of 90, but his legacy continues to inspire and influence musicians around the world.

• Sitara Devi was a renowned Indian classical dancer who specialized in Kathak, a North Indian dance form that emphasizes footwork, facial expressions, and storytelling.

• She was born in 1920 in Kolkata, India, and was raised in a family of musicians and dancers.

• Devi began performing as a child and quickly gained a reputation as a talented and charismatic dancer.

• She went on to become one of the most famous and respected dancers in India, performing for audiences around the world and receiving numerous awards and accolades for her contributions to dance.

• Devi was known for her dynamic and expressive performances, as well as her tireless efforts to promote and preserve traditional Indian dance forms.

• She passed away in 2014 at the age of 94, but her legacy as a pioneer of Indian classical dance continues to inspire generations of dancers and dance enthusiasts.

Q32. Answer: (c) Securities and Exchange Board of India

The correct answer is Option 3.

Key Points

• In India, the primary financial institution that protects investors in the stock market is the Securities and Exchange Board of India (SEBI).

• SEBI is a regulatory body that was established in 1988 to protect the interests of investors in the Indian securities market and to promote the development of the securities market.

• SEBI regulates and supervises the activities of various market participants, including stock exchanges, brokers, mutual funds, and other intermediaries, and it also enforces rules and regulations related to trading, disclosure, and transparency in the securities market.

• SEBI plays a critical role in maintaining the integrity and stability of the Indian securities market and in safeguarding the interests of investors by ensuring fair and transparent trading practices, promoting investor education and awareness, and enforcing laws and regulations to prevent fraud and malpractice.

Additional Information

• The Bombay Stock Exchange (BSE) is a major stock exchange located in Mumbai, India.

• It was established in 1875, making it one of the oldest stock exchanges in Asia.

• The BSE is a popular platform for trading in stocks, bonds, and other financial instruments, and it is known for its role in shaping the Indian capital market.

• The BSE has a market capitalization of over $2 trillion, making it one of the largest stock exchanges in the world.

• The BSE also serves as an important source of financing for Indian companies, allowing them to raise capital by issuing stocks and bonds to investors.

• The BSE is regulated by the Securities and Exchange Board of India (SEBI), which is responsible for ensuring fair and transparent trading practices in the Indian securities market.

• The BSE has played a significant role in the growth and development of the Indian economy, and it continues to be a major hub for investment and trading activity in India.

• The Reserve Bank of India (RBI) is the central bank of India, responsible for regulating the monetary policy of the country and supervising the banking system.

• The RBI was established in 1935 and is headquartered in Mumbai. Its main functions include formulating and implementing monetary policy, regulating and supervising banks and other financial institutions, managing the foreign exchange market, and issuing currency.

• The RBI is governed by a central board of directors, headed by a Governor who is appointed by the Indian government.

• The RBI plays a crucial role in maintaining financial stability and promoting economic growth in India.

• Its policies and decisions have a significant impact on the banking and financial sectors in the country, as well as on the broader economy.

• The RBI also serves as a lender of last resort, providing liquidity to banks and other financial institutions in times of crisis.

• The National Stock Exchange (NSE) is one of the major stock exchanges in India, located in Mumbai.

• It was established in 1992 and has since become one of the largest stock exchanges in the world by market capitalization.

• The NSE provides a platform for trading in a wide range of financial instruments, including equities, futures and options, currencies, and debt securities. It is known for its advanced electronic trading platform and has been a pioneer in introducing technology-driven innovations in the Indian securities market.

• The NSE is regulated by the Securities and Exchange Board of India (SEBI) and operates under strict rules and regulations to ensure fair and transparent trading practices.

• The NSE has played a significant role in the development of the Indian capital market, providing investors with access to a wide range of investment opportunities and contributing to the growth and development of Indian businesses.

• The NSE has also been a driving force behind the growth of the Indian economy and has helped to promote economic stability and growth by facilitating the flow of capital to businesses and entrepreneurs.

Q33. Answer: (d) Kanchipuram

The correct answer is Option 4.

Key Points

• Kanchipuram was the capital of the Pallava dynasty.

• The Pallavas were a powerful dynasty that ruled a large part of southern India from the 3rd to the 9th century CE.

• Kanchipuram, also known as Kanchi, is located in the state of Tamil Nadu and is renowned for its temples, silk sarees, and rich cultural heritage.

Additional Information

• The Pallavas were one of the earliest dynasties to emerge in southern India, and their capital was Kanchipuram, located in present-day Tamil Nadu.

• The Pallavas were patrons of art, architecture, literature, and religion, and their influence can still be seen in many parts of southern India today.

• They were responsible for building many famous temples and monuments, including the Shore Temple in Mahabalipuram and the Kailasanatha Temple in Kanchipuram.

• The Pallava dynasty declined in the 9th century CE, with the rise of the Chola dynasty, but their legacy continued to shape the culture and history of southern India for centuries to come.

Q34. Answer: (b) Second Five Year plan

The correct answer is Option 2.

Key Points

• The Industrial Policy Resolution of 1956 was an important policy document in India's economic history and played a key role in shaping the country's economic development trajectory.

• It was adopted by the Indian government under the leadership of Prime Minister Jawaharlal Nehru with the aim of promoting industrialization and economic growth in the country.

• The policy was closely linked to India's Second Five Year Plan (1956-61), which was the country's second major economic development plan after independence.

• The Second Five Year Plan was heavily influenced by the principles laid out in the Industrial Policy Resolution of 1956, which emphasized the importance of state-led development and the establishment of a mixed economy in which the private sector and public sector would both have a role to play.

• The Second Five Year Plan focused on promoting industrialization, particularly in key sectors such as steel, power, and heavy engineering, and on developing the country's infrastructure.

• The plan was also aimed at promoting social welfare and reducing poverty by creating employment opportunities and improving access to essential goods and services for the people of India.

Additional Information

• A Five Year Plan is a strategic planning framework used by organizations, governments, and individuals to set long-term goals and objectives over a five-year period. The plan typically includes specific targets and timelines for achieving those goals.

• The Fifth Five Year Plan was a period of economic planning in India that covered the period from 1974 to 1979.

• The plan was introduced during a period of economic crisis, marked by high inflation and slow economic growth.

• The main focus of the Fifth Five Year Plan was on increasing agricultural production, promoting rural development, and reducing poverty.

• The plan also emphasized the need to increase industrial production and promote exports to earn foreign exchange.

• The Fourth Five-Year Plan was a period of economic planning in India that covered the period from 1969 to 1974.

• The main focus of the Fourth Five-Year Plan was on achieving self-sufficiency in food production and reducing poverty.

• The plan also emphasized the need to increase industrial production and to promote exports to earn foreign exchange.

• The Third Five-Year Plan was a period of economic planning in India that covered the period from 1961 to 1966.

• The main objective of the Third Five-Year Plan was to achieve self-sustaining growth and to reduce poverty.

• This plan was introduced after a brief period of stability following the Indo-China war in 1962.

Q35. Answer: (a) Sponge

The correct answer is Option 1.

Key Points

• Sponge is a type of colloid in which gas is dispersed in a solid, rather than in a liquid.

• In a sponge, a solid material (such as cellulose or polyurethane) forms a network of pores that trap gas.

• When a sponge is soaked in water, the pores fill with water and create a stable suspension.

• This is different from a foam, where gas is dispersed in a liquid.

• An example of a sponge colloid is the polyurethane foam used in mattresses, cushions, and insulation, in which air is dispersed within a solid polyurethane matrix.

Additional Information

• Butter is a complex mixture of many different chemical compounds, including fats, proteins, water, and various other substances.

• The major chemical components of butter are the fatty acids, which are long chains of carbon and hydrogen atoms.

• The fatty acids in butter can vary depending on the source and processing of the butter, but they are typically a mixture of saturated and unsaturated fatty acids.

• Cheese is a complex mixture of proteins, fats, and water, as well as various vitamins, minerals, and flavor compounds. The specific chemical form of cheese can vary depending on the type of cheese, but some of the key components include:

• Proteins: Cheese contains a variety of proteins, including casein and whey proteins. These proteins are made up of amino acids, which are the building blocks of proteins. The specific amino acid composition of cheese can vary depending on the type of cheese and how it is made.

• Fats: Cheese is also high in fat, which is an important source of flavor and texture. The fats in cheese are mostly in the form of

triglycerides, which are made up of fatty acids and glycerol.

• Water: Cheese contains varying amounts of water, depending on the type of cheese and how it is made. The water content can range from less than 40% for hard, aged cheeses to over 70% for soft, fresh cheeses.

• Minerals: Cheese is a good source of calcium, phosphorus, and other minerals that are important for bone health and other bodily functions.

• Flavor compounds: Cheese contains a wide variety of flavor compounds, including volatile compounds like esters, aldehydes, and ketones, as well as non-volatile compounds like amino acids and peptides. The specific flavor profile of cheese can vary depending on the type of cheese and how it is made.

Q36. Answer: (b) Ctrl + Alt + I

The correct answer is Ctrl + Alt + I.

Key Points

• Other important computer shortcut keys

• Ctrl + M -- Indent the paragraph.

• Ctrl + B -- Bold highlighted selection.

• Ctrl + D -- Font options.

• Alt + F--File menu options in the current program.

• Alt + E--Edits options in the current program.

• F1--Universal help (for any sort of program).

• Ctrl + A--Selects all text.

• Ctrl + X--Cuts the selected item.

• Ctrl + Del--Delete the next word.

• Ctrl + C--Copy any selected item.

• Ctrl + Ins-- Copies any highlighted text into the clipboard.

• Ctrl + V--Paste the selected item.

• Shift + Ins -- Paste the selected item.

• Home -- Takes the user to the beginning of the current line.

• Ctrl + Home--Go to the beginning of the document.

• End -- Go to the end of the current line.

• Ctrl + End -- Go to the end of a document.

• Shift + Home -- Highlight from the current position to the beginning of the line.

• Shift + End -- Highlight from the current position to the end of the line.

• Ctrl + (Left arrow) -- Move one word to the left at a time.

• Ctrl + (Right arrow) -- Move one word to the right at a time.

Q37. Answer: (c) Bihar

The correct answer is Bihar.

Key Points

• As per National Mineral Inventory data, the total reserves/resources of gold ore (primary) in the country have been estimated at 501.83 million tonnes.

• In India, largest resources of gold ore (primary) are located in Bihar (44%) followed by Rajasthan (25%), Karnataka (21%), West Bengal (3%), Andhra Pradesh (3%), Jharkhand (2 %).

• The remaining 2% resources of ore are located in Chhattisgarh, Madhya Pradesh, Kerala, Maharashtra, and Tamil Nadu.

• Cost of extraction of any mineral including gold vary from mine to mine.

Additional Information

• Karnataka is the largest producer of gold in India.

• Karnataka was the leading producer of primary gold accounting for 99% of the total production.

• The remaining production was reported from Jharkhand.

• Kolar gold fields and Hutti goldfields are the two major goldfields located in Karnataka.

• Karnataka has the only operational gold mine in India.

• Hutti Gold Mines is the only producer of primary gold in the country.

• Hutti Gold Mines has the capacity to produce 5,50,000 tonnes per annum.

• Hutti Gold Mine is one of the most ancient metal mines in the world.

YourMockTest.com — Free Study Material

• Kolar gold fields closed on 28 February 2001 due to a fall in gold prices.

Q38. Answer: (c) Godavari

The correct answer is Godavari.

Key Points

• Godavari

• The Godavari is India's largest peninsular river.

• It is the second-longest river in India after the Ganga.

• It rises from Maharashtra's Thriambak hill.

• Its length is about 1465 km.

• Due to its length and the area it covers, it is also known as the ‘Dakshin Ganga’.

• Flows through the states of Maharashtra, Chhattisgarh, Telangana, and Andhra Pradesh.

Additional Information

• Mahi

• It originates in the Mahi Kanta hills, from the northern slopes of Vindhyas at an altitude of 500 m near village Bhopawar, Sardarpur Tehsil in the Dhar district of Madhya Pradesh.

• It flows through the Vagad region of Rajasthan, enters Gujarat, and flows into the Arabian Sea.

• Narmada

• The Narmada river originates from the Narmada Kund located in Amarkantak, Anuppur district in Madhya Pradesh.

• Amarkantak is located on the Maikal mountain.

• The Narmada river forms the unmarked boundary between North and South India.

• The major tributaries of the Narmada are Barna, Tawa, Kanar, Kolar, Man, Hatni, Uri, Shakkar, etc.

• It flows westwards (1, 312 km) before falling into the Gulf of Khambhat.

• The Narmada river is the longest river in Madhya Pradesh and it's called "The Lifeline of Madhya Pradesh".

• The waterfalls created by the Narmada River include Kapil Dhara and Dudh Dhara Falls (Anuppur), Dhuandhar Falls (Bhedaghat, Jabalpur), Sahasradhara Falls (Maheshwar, Khargone), Dardhi Falls, Manadhata Falls, etc.

• Tapi

• The Tapti River (aka Tapi river)is a river in central India located to the south of the Narmada river which flows westwards before draining into the Arabian Sea.

• The river has a length of around 724 kms and flows through the states of Maharashtra, Gujarat, and Madhya Pradesh.

• Tapti river originates from Multai Betul district Madhya Pradesh. And also from the Satpura range.

Q39. Answer: (a) ROM

The correct answer is ROM.

Key Points

• ROM

• Read-Only Memory is a ROM in a computer.

• Read-only memory is a storage medium that permanently stores data on computers and electronic devices.

• The data stored in these chips is nonvolatile i.e. it is not lost when power is removed.

• There are five basic ROM types:

• ROM: Read-Only Memory.

• PROM: Programmable read-only memory.

• EPROM: Erasable programmable read-only memory.

• EEPROM: Electrically erasable programmable read-only memory.

• Flash memory: Flash memory, a type of EEPROM that uses in-circuit wiring.

• BIOS uses Flash memory.

Additional Information

• Register

• The smallest and fastest memory of a computer is registered memory located in the computer's central processing unit(CPU).

• It generally stores the most used instructions, data, etc. which are to be used by CPU.

• Control Unit is part of the CPU.

• It advises the input and output devices, and computer memory on how to respond to the instructions sent to the processor.

• RAM

YourMockTest.com — Free Study Material

• It stores data that the computer needs to use temporarily. So it is faster than the secondary storage devices. It is a volatile memory i.e. the data disappear from it when the power is off.

• It is known as the Read-Write Memory. i.e. the user can write information into RAM and read information from it.

• It is called random access since any memory location can be accessed randomly for reading and writing. The access time is the same for each memory location.

• It is usually called “temporary” memory, which means that when the system is shut down, the memory is lost.

• Cache

• A cache memory is used by the central processing unit of a computer to reduce the average cost time or energy to access data from the main memory.

• Generally Cache memory is logically positioned between CPU and main memory.

Q40. Answer: (b) Uttar Pradesh

The correct answer is Uttar Pradesh.

Key Points

• Aaram Bagh

• Aaram Bagh was originally built by the Mughal Emperor Babur in 1528.

• The Aaram Bagh is the oldest Mughal Garden in India, located in Agra, five kilometres northeast of the Taj Mahal.

• Before being interred in Kabul, Babur was temporarily buried there.

• The garden is a Persian garden, where the garden is divided by paths and canals to represent the Islamic ideal of paradise, a plentiful garden through which rivers flow.

• Two viewing pavilions face the Jamuna river and include an underground 'tahkhana' that was used to provide visitors with relief during the hot summers. There are numerous watercourses and fountains in the garden.

Additional Information

• Mughals:

• The Mughals were descendants of two great lineages of rulers.

• From their mother’s side, they were descendants of Genghis Khan (died 1227), the Mongol ruler who ruled over parts of China and Central Asia.

• From their father’s side, they were the successors of Timur (died 1404), the ruler of Iran, Iraq and modern-day Turkey.

• However, the Mughals did not like to be called Mughal or Mongol. This was because Genghis Khan’s memory was associated with the massacre of innumerable people.

• It was also linked with the Uzbeks, their Mongol competitors.

• On the other hand, the Mughals were proud of their Timurid ancestry, not least of all because their great ancestor had captured Delhi in 1398.

Q41. Answer: (b) Himachal Pradesh

The correct answer is Himachal Pradesh.

Key Points

• Bulk Drug Park

• The Prime Minister, Shri Narendra Modi laid the foundation stone of Bulk Drug Park and dedicated the Indian Institute of Information Technology (IIIT) Una to the nation.

• work is beginning on the second bulk drug park of the country at Una here.

• “Being chosen as one of the only three states for a bulk drug park is a momentous decision for the state and is a result of our affection and dedication for the state”.

• Three bulk drug parks have received ‘in principle approval from the Central government of India.

• The bulk drug parks in Gujarat, Himachal Pradesh, and Andhra Pradesh will provide a consistent supply of bulk drug active components and will ensure India’s drug security.

Additional Information

• The state of Himachal Pradesh was formed in the year 1971.

• It was established as the 18th state with Shimla as its capital.

• In 1950, it was created after a merger of 30 princely states and in 1956 it was declared a union territory.

Q42. Answer: (d) Establishment of standards of weight and measure

The correct answer is Establishment of standards of weight and measure.

Key Points

• The Seventh schedule of the Indian Constitution deals with the division of powers between the union and the states in terms of

the list.

• The Seventh Schedule to the Constitution of India defines and specifies the allocation of powers and functions between Union & States.

• It contains three lists:

1. Union List,

2. State List and

3. Concurrent List

• 7th Schedule of Indian Constitution – Union List had 97 subjects. Now, it has 100 subjects.

• 88th Amendment added a new subject in the Union List called ‘taxes on services.’

• The state list has 61 subjects. Earlier, it had 66 items.

• The 69th Constitutional Amendment Act of 1991 made special provisions in relation to National Capital. Laws cannot be made by the Delhi government on three subjects under State List named as – Public Order, Police & Land.

• The concurrent list has 52 subjects enumerated under it.

Q43. Answer: (c) Robert Clive

The correct answer is Robert Clive.

Key Points

• Battle of Plassey:

• It was fought in 1757 in the Plassey region of West Bengal, on the east of the Bhagirathi river.

• Troops of the British East India Company, led by Robert Clive, came up against the forces of Siraj-ud-Daulah, the last independent Nawab of Bengal, and his French allies.

• The victory of the British East India Company in the Battle of Plassey is one of the important landmarks in India History.

• The Battle of Plassey paved the way for the beginning of the British empire in India.

• The British enjoyed the tax benefits, had to compete with no rival foreign merchants, and began to use the revenue of Bengal for protecting their military and trade interests.

• So much wealth was drained from Bengal that the economy was completely shattered. This is known as the Plassey Plunder.

• With the wealth of Bengal, the British secured their business and political supremacy.

Additional Information

• The Governor and company of merchants of London trading into the East Indies, popularly known as the English East India Company, were formed in 1600 AD.

• Captain William Hawkins arrived at Jahangir’s court in 1609 AD to seek permission to open a factory in Surat.

• A Farman was issued by Jahangir, permitting the English to build a factory in Surat.

• In 1613, a permanent factory of East India Company was established at Surat.

• In 1611, the company established its first factory in the south in Masulipattanam.

Q44. Answer: (c) Premchand

the correct answer is Premchand.

Key Points

• Premchand

• Premchand, also known as Dhanpat Rai Srivastava, was an Indian author best known for his contemporary Hindustani writing.

• He was born on July 31, 1880, and died on October 8, 1936.

• Hindi and Urdu social fiction were invented by Premchand.

• He was one of the first writers to discuss caste systems, the suffering of working women, and other issues that were prevalent in late 1880s culture.

• He is one of the most well-known authors on the Indian continent and is recognised as one of the greatest Hindi authors of the first half of the 20th century.

• He has written various novels, including, Godaan, Karmabhoomi, Gaban, Mansarovar, and Idgah.

• In a book titled Soz-e-Watan, he released his first collection of five short stories.

Q45. Answer: (b) Radiation therapy

The correct answer is Radiation therapy.

Key Points

• Radiotherapy to treat cancer:

• High doses of radiation are used in radiation therapy, also known as radiotherapy, as a cancer treatment to eradicate cancer

cells and reduce tumour size.

• As with X-rays of your teeth or shattered bones, radiation is utilised at low doses in x-rays to see inside your body.

• Radiation therapy damages cancer cells' DNA, which either kills them or limits their growth at high dosages.

• Cancer cells that have DNA damage that cannot be repaired either cease proliferating or die.

• When the injured cells expire, the body degrades and eliminates them.

• But too much radiation can damage tissues by changing cell structure and damaging DNA.

• This can cause serious health problems.

Additional Information

• Chemotherapy

• Chemotherapy is the use of any drug to treat any disease.

• But to most people, the word chemotherapy means drugs used for cancer treatment.

• It's often shortened to “chemo.” Surgery and radiation therapy remove, kill, or damage cancer cells in a certain area, but chemo can work throughout the whole body.

• Surgery:

• Surgery is a medical speciality that employs operative manual and instrumental techniques on a patient to examine or treat a pathological condition.

• Such as a disease or injury, to enhance bodily function or appearance, or to repair unwelcome ruptured areas

• Physiotherapy

• Physiotherapy is a healthcare profession that aims to help people restore and maintain movement and function when affected by injury, illness or disability.

• Physiotherapists use a combination of manual therapy, exercise, and education.

Q46. Answer: (d) 226

The correct answer is 226.

Key Points

• Under Article 226, a writ petition can be filed in a High court for issuing one of the five writs as per the case.

• A High Court is empowered to issue directions, orders, or writs for the enforcement of a Fundamental Right and for any other purpose those include:

• Habeas corpus

• Mandamus

• Prohibition

• Quo warranto

• Certiorari.

• The Supreme Court is considered the protector and guarantor of fundamental rights(Article 32).

Additional Information

• Article 32 of the Indian Constitution has been described as the ‘heart and soul’ of the Indian Constitution by Dr B. R. Ambedkar.

• It gives a citizen the right to approach the Supreme Court to get resorted to any of the fundamental rights in case of their violation.

• It is also known as the Right to Constitutional Remedies.

Q47. Answer: (d) Banas

The correct answer is Banas.

Key Points

• Banas river originates from the state of Rajasthan.

• The river originates from the Khamnor hills of the Aravali range near Kumbhalgarh.

• It is also known as 'Van ki Asha' (Hope of forest).

• It flows northeast through the Mewar region of Rajasthan and meets the Chambal near the village of Rameshwar in Sawai Madhopur district.

• Berach and Menali are the right bank tributaries of the Banas river.

• Kothari, Khari, Dai, Dheel River, Sohadara River, Morel, and Kalisil are the left bank tributaries of Banas river.

Additional Information

• Chambal River

• It is the tributary of the Yamuna River.

• It rises in the Vindhyachal range South of Mhow, the western state of Madhya Pradesh.

• It flows from the north into the southeastern state of Rajasthan.

• It ends on the confluence of five rivers which includes the Chambal, Kwari, Yamuna, Sind, Pahuj, at Pachnada near Bhareh in Uttar Pradesh, at the border of Bhind and Etawah districts.

• Major Tributary - Kshipra, Kalisindh, Parvati, Bansa, Newaj, Kwari, Sindh, etc.

• Narmada River

• It originates from the Narmada Kund located in Amarkantak, Anuppur district in Madhya Pradesh.

• The major tributaries of the Narmada are Barna, Tawa, Kanar, Kolar, Man, Hatni, Uri, Shakkar, etc.

• It flows westwards before falling into the Gulf of Khambhat.

• The Narmada river is the longest river in Madhya Pradesh and it's called "The Lifeline of Madhya Pradesh".

• The waterfalls created by the Narmada River include Kapil Dhara and Dudh Dhara Falls (Anuppur), Dhuandhar Falls (Bhedaghat, Jabalpur), Sahasradhara Falls (Maheshwar, Khargone), Dardhi Falls, Manadhata Falls, etc.

• Mahi River

• It rises in Madhya Pradesh and, after flowing through the Vagad region of Rajasthan, enters Gujarat and flows into the Arabian Sea.

• It is one of Five west-flowing rivers in India, along with Tapti River, Sabarmati River, Luni River (Endorheic river) and the Narmada River.

• Tributaries- Som, Anas, and Panam.

Q48. Answer: (c) Gokulam Kerala FC

The correct answer is Gokulam Kerala.

Key Points

• Gokulam Kerala won the I-League title as it defeated TRAU 4-1 in the final match of the season in Kolkata.

• Gokulam as an I-League champion has qualified for the group stage of the AFC Cup next season, Asia's second-tier club competition.

• They also became the first club from the Kerala side to win the I-League title.

Additional Information Hero I-League:

• it was founded in the year 1996 as National Football League.

• The league was established in the year 2007 as I-League.

• It is organized by the All India Football Federation (AIFF).

• A total of 13 teams participates in the tournament.

Q49. Answer: (b) National Commission for Protection of Child Rights

The correct answer is National Commission for Protection of Child Rights.

Key Points

• E-Baal Nidan is an online complaint mechanism launched in 2015 to enable individuals to report violations committed against a child and track them.

• It was revamped in September 2022.

Additional Information

• The National Commission for Protection of Child Rights (NCPCR) was set up in March 2007 under the Commissions for Protection of Child Rights (CPCR) Act, 2005, an Act of Parliament (December 2005).

• The National Commission for Protection of Child Rights (NCPCR) is a statutory body under the Commissions for Protection of Child Rights (CPCR) Act, 2005 under the administrative control of the Ministry of Women & Child Development, Government of India.

• The Commission's Mandate is to ensure that all Laws, Policies, Programmes, and Administrative Mechanisms are in consonance with the Child Rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.

• The Child is defined as a person in the 0 to 18 years age group.

• The National Commission for Protection of Child Rights (NCPCR) works at State, Central and Local bodies.

• Independent monitoring of the implementation of the Act is assigned to the National Council of Protection of Child Rights (NCPCR), the main responsibilities are:

• examine and review safeguards for rights under this Act, and recommend measures for effective implementation

• inquire into complaints relating to child’s right to free and compulsory education

• conduct periodic social audits of the status of implementation and review

• Hence, the National Commission for Protection of Child Rights (NCPCR) works at State, Central and Local bodies.

Q50. Answer: (a) Homi J. Bhabha

The correct answer is Homi J. Bhabha.

Key Points

• Homi Jehangir Bhabha is called as father of Indian nuclear program.

• He is also called as Architect of the nuclear Age and Architect of the atomic bomb.

• He was founding director of Atomic energy establishment, Trombay (AEET) which is now named the Bhabha atomic research centre in his honor.

• He was the founding chairman of Atomic Energy Commission (AEC), which was established in 1948.

• He was awarded the Adam prize and Padma Bhushan.

• He was also nominated for Noble prize for physics in 1951 and 1953-56.

Additional Information

• Vikram Sarabhai initiated space research and helped to develop nuclear power in India.

• He is internationally regarded as father of Indian space program.

• He was the founder of Indian Space Research Organization(ISRO).

• APJ Abdul Kalam was an Indian aerospace scientist and known as Missile Man of India.

• He was intimately involved in civil space program and military missile development efforts.

• U.R.Rao was an Indian space scientist and former chairman of ISRO.

• He is known as The Satellite Man of India.

• C.V. Raman discovered the Raman effect, which occurs when light scatters and changes wavelength as it passes through a material. This phenomenon is now known as Raman scattering.

• Venkatraman Radhakrishnan was a physicist and radio astronomer who contributed to many areas of study, including the magnetic field of Jupiter, the rotation of Jupiter's interior, and pulsar astronomy.

Q51. Answer: (b) 20%

Calculation:

Total number of people = 8 + 2 + 1 + 6 + 10 + 8 + 12 + 3 = 50

Total number of people who like black colour = 10

Now, the required % = 10/50 × 100% = 20%

Therefore 20% of the total number of people like black colour.

Q52. Answer: (b) 28 cm

Given:

In ΔSTU, X and Y are the points on sides ST and SU respectively.

XY is parallel to TU. If SX : XT = 2 : 5 and UY = 20 cm

Concept used:

Thales' Theorem states if a line is drawn parallel to one side of a triangle intersecting the other two sides in distinct points, then the other two sides are divided in the same ratio.

Calculation:

According to the concept,

SX : XT = 2 : 5

=> SY : YU = 2 : 5

So, SY = 20/5 × 2 = 8 cm

Now, the length of SU

=> SY + YU

=> 20 + 8

=> 28 cm

Therefore The value of SU is 28 cm.

Q53. Answer: (c) 25%

Calculation:

Rohit and Raju scored 15% and 20% of the total marks respectively.

Now, the required % = (20 - 15)/20 × 100% = 25%

Therefore The marks of Rohit is 25% less than that of Raju.

Q54. Answer: (b) 616√5 cm²

Given:

Circumference of the base of the cone = 88 cm

Height of the cone = 28 cm

Formula:

The curved surface area of the cone = πrℓ, where r is the radius of the base and ℓ is the slant height of the cone.

Solution:

Let's first find the radius of the base of the cone.

Circumference of the base of the cone = 2πr, where r is the radius

88 = 2πr

r = 88/2π = 14 cm

Now, we can use the Pythagorean theorem to find the slant height of the cone.

The slant height (ℓ) of the cone is given by:

$\ell^2 = r^2 + h^2$

$\ell^2 = 14^2 + 28^2$

$\ell^2 = 980$

$\ell = \sqrt{980} = 14\sqrt{5}$ cm

Now, we can use the formula for the curved surface area of a cone:

The curved surface area of the cone = πrℓ

= 22\7 × (14)(14√5)

= 616√5

Therefore, the curved surface area of the cone is 616√5 cm².

Q55. Answer: (c) 6√3 cm

Shortcut Trick

When two circles of equal radius (r) pass through each other's centre, the length of their common chord is given directly by the formula √3r.

Given, radius (r) = 6 cm.

Length of common chord = 6√3 cm.

Therefore The correct answer is 6√3 cm.

Alternate Method

A

B

P

Q

M

6 cm

6 cm

3

3

Length of Common Chord PQ

Given:

Radius of both circles = r = 6 cm

The circles pass through each other's centre, implying the distance between their centres is exactly equal to their radius.

Distance between centres (AB) = 6 cm

Concept Used:

The line joining the centres of two intersecting circles acts as a perpendicular bisector to their common chord.

Calculation:

=> Let the centres of the two circles be A and B, and their intersection points be P and Q.

=> The distance AP = BP = r = 6 cm.

YourMockTest.com — Free Study Material

=> The distance AB = r = 6 cm.

=> Thus, ΔAPB is an equilateral triangle with a side length of 6 cm.

=> Let M be the point of intersection of the common chord PQ and the line AB.

=> Since PQ is perpendicularly bisected by AB, AM = AB ÷ 2 = 6 ÷ 2 = 3 cm.

=> In right-angled triangle ΔAMP, using the Pythagoras theorem:

=> AP2 = AM2 + PM2

=> 62 = 32 + PM2

=> 36 = 9 + PM2

=> PM2 = 36 − 9 = 27

=> PM = √27 = 3√3 cm

=> The common chord PQ is exactly twice the length of PM.

=> PQ = 2 × PM = 2 × 3√3 = 6√3 cm

Therefore The correct answer is 6√3 cm.

Additional Information

Properties of Common Chord

The common chord of two intersecting circles is perpendicularly bisected by the straight line joining their centres. The maximum length of a common chord equals the diameter of the smaller circle.

Distance Between Centres of Intersecting Circles

If two circles with radii r1 and r2 intersect at two distinct points, the distance 'd' between their centres will always satisfy the strict inequality: |r1 − r2| < d < r1 + r2.

Number of Common Tangents

When two circles intersect each other at exactly two distinct points, exactly 2 direct common tangents can be drawn touching both circles, and no transverse common tangents exist.

Q56. Answer: (a) 60 percent

Given:

Number of pens bought = 80

Cost price of each pen = Rs. 80

Number of pens sold at a loss = 40

Loss percentage = 20%

Profit percentage on all pens = 20%

Formula:

Selling price (S.P.) = Cost price (C.P.) × (100% + Profit %)/100

Selling price (S.P.) = Cost price (C.P.) × (100% - Loss %)/100

Profit/Loss = Selling Price (S.P.) - Cost Price (C.P.)

Solution:

Cost price of 80 pens = 80 × 80 = Rs. 6400

Cost price of 40 pens = 40 × 80 = Rs. 3200

Selling price of 40 pens sold at a loss of 20%:

S.P. = C.P. × (100% - Loss%)/100

S.P. = 3200 × (100% - 20%)/100

S.P. = 3200 × 0.8 = 2560

Selling price of all 80 pens at a profit of 20%:

S.P. = C.P. × (100% + Profit %)/100

S.P. = 6400 × (100% + 20%)/100

S.P. = 6400 × 1.2 = Rs. 7680

SP of the remaining 40 pens = 7680 - 2560 = Rs. 5120

Profit = SP - CP

Profit = 5120 - 3200

Profit = 1920

Profit% = Profit/CP × 100

=> 1920/3200 × 100

=> 60%

The profit percentage on the remaining 40 pens is 60%.

Q57. Answer: (b) 100 days

Calculation:

Let us assume that the total work to be done is 100 units.

Given that P and Q together can complete the work in 20 days.

Hence, in 1 day, P and Q can complete 100/20 = 5 units of work.

Let the efficiency of P be x units/day.

Therefore, the efficiency of Q will be (5-x) units/day.

Given that Q alone can complete the work in 25 days.

Hence, the efficiency of Q is (100/25) = 4 units/day.

Therefore, (5-x) = 4

x = 1

Hence, the efficiency of P is 1 unit/day.

Therefore, P alone can complete the work in 100/1 = 100 days.

Therefore, P alone can complete the work in 100 days.

Q58. Answer: (d) Only II

Calculation:

Checking Statement I:

The sales of bikes of company L and M together = 500 + 450 = 950

The sales of cars of company P and Q together = 900 + 800 = 1700

Now, % = 950/1700 × 100% ≈ 55.88%

Hence, the sales of bikes of company L and M together is NOT 45.88% of the sales of cars of company P and Q together.

Checking Statement II:

Total sales of bikes = 500 + 450 + 650 + 700 + 800 = 3100

Total sales of cars = 1000 + 550 + 750 + 900 + 800 = 4000

Now, % = 3100/4000 × 100% = 77.5%

Hence, the total sales of bikes is 77.5% of the total sales of cars

Therefore Only II is correct.

Q59. Answer: (b) 28 cm

Given:

The circumference of a circle is 88 cm.

Chord XY makes an angle of 90 degrees at the circumference of this circle.

Concept used:

1. Only the diameter of a circle subtends an angle of 90° at the circumference of the circle.
2. The diameter is the largest chord of a circle.
3. Circumference of the circle = 2πR (R = Radius and π = 22/7)
4. Diameter = Radius × 2

Calculation:

Let the radius of the circle be R cm.

According to the concept,

2πR = 88

=> 2 × 22/7 × R = 88

=> R = 7 × 2

=> R = 14

So, Diameter = 14 × 2 = 28 cm

According to the question,

XY chord subtends an angle of 90° at the circumference of this circle.

But according to the concept, only the diameter of a circle subtends an angle of 90° at the circumference of the circle.

Hence, XY has to be the diameter of the circle.

Now, XY = Diameter of the circle = 28 cm

Therefore The length of XY is 28 cm.

Q60. Answer: (a) -50

Shortcut Trick

Each pair of terms (1 − 2), (3 − 4), (5 − 6) results in −1.

Total number of terms = 100.

Total number of pairs = 100 ÷ 2 = 50 pairs.

Value of expression = 50 × (−1) = −50.

Therefore The correct answer is -50.

Alternate Method

Given: 1 − 2 + 3 − 4 + 5 − 6 ..... to 100 terms.

Formula Used: Sum of Arithmetic Progression (AP) = (n÷2)[2a + (n−1)d]

Calculations:

Separate the positive and negative terms into two series:

=> Sum = (1 + 3 + 5 + ... to 50 terms) − (2 + 4 + 6 + ... to 50 terms)

=> Positive series: n = 50, a = 1, d = 2

=> Sum_(pos) = (50÷2)[2(1) + (50−1)2] = 25[2 + 98] = 25 × 100 = 2500

=> Negative series: n = 50, a = 2, d = 2

=> Sum_(neg) = (50÷2)[2(2) + (50−1)2] = 25[4 + 98] = 25 × 102 = 2550

=> Total Sum = 2500 − 2550 = −50

Therefore The correct answer is -50.

Additional Information

Sum of First n Odd Numbers

The sum of the first n odd natural numbers is always given by the formula n^2.

Sum of First n Even Numbers

The sum of the first n even natural numbers is given by the formula n(n + 1).

Alternating Sum of first n terms

For an alternating series 1 − 2 + 3 − 4 ..., if n is even, the sum is −n/2. If n is odd, the sum is (n+1)/2.

Q61. Answer: (c) 4

Given:

(1/1÷ 1/2× 1/2+1/2× 1/2÷1/2)/(1/4×1/4÷1/2+1/4÷ 1/4× 1/2-1/4÷ 1/2× 1/2)

Concept used:

Calculation:

According to the concept,

(1/1÷ 1/2× 1/2+1/2× 1/2÷1/2)/(1/4×1/4÷1/2+1/4÷ 1/4× 1/2-1/4÷ 1/2× 1/2)

=> (1 × 2/1× 1/2+1/2× 1/2×2/1)/(1/4×1/4×2/1+1/4×4/1× 1/2-1/4×2/1× 1/2)

=> (1 +1/2)/(1/8+ 1/2-1/4)

=> (3/2)/(3/8)

=> (3 × 8)/(3 × 2)

=> 4

Therefore The simplified value is 4.

Q62. Answer: (d) 110 degree

Given:

The angle subtended by a chord on the major arc of a circle is 55 degrees.

Concept used:

The angle subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle.

Calculation:

Let O, R, and PQ be the centre, a point on the major arc, and the aforementioned chord respectively.

So, the major arc for the PQ chord is PRQ.

Hence, angle PRQ = 55°

YourMockTest.com — Free Study Material

Here, angle POQ is the angle subtended by the same chord, PQ on the centre of the circle.
According to the concept,
angle POQ = 2 × angle PRQ
=> angle POQ = 2 × 55°
=> angle POQ = 110°
Therefore The angle subtended by the same chord on the centre of the circle is 110°.

Q63. Answer: (c) Rs. 5100

Given:
20% of A's income = 10% of B's income
A's income = Rs. 2550
Let B's income be x.
Formula:
To find the percentage, we can use the formula:
Part/Whole = Percentage/100
Solution:
According to the given information, we can write the equation:
(20/100) × 2550 = (10/100) × x
Simplifying this equation, we get:
(2/10) × 2550 = (1/10) × x
Multiplying both sides by 10, we get:
5100 = x
Therefore, B's income is Rs. 5100.

Q64. Answer: (c) (sec A-1)/(sec A+1)

Given:
(tan A-sin A)/(tan A+sin A)
Concept used:
1. tanα = sinα/cosα
2. secα = 1/cosα
Calculation:
According to the concept,
(tan A-sin A)/(tan A+sin A)
=> ((sin A)/(cos A)-sin A)/((sin A)/(cos A)+sin A)
=> (1/(cos A)-1)/(1/(cos A)+1) (Cancelling sin A from both numerator and denominator)
=> (sec A-1)/(sec A+1)
Therefore The value of (tan A-sin A)/(tan A+sin A) is (sec A-1)/(sec A+1).

Q65. Answer: (b) Rs. 336

Given:
The cost price of the ball is Rs. 700.
Two successive discounts of 20% and 40% are given.
Formula:
To calculate the selling price after applying successive discounts, we can use the formula:
Selling price = Cost price × (1 - d1/100) × (1 - d2/100)
where d1 and d2 are the percentages of the first and second discounts, respectively.
Solution:
Here, d1 = 20 and d2 = 40, as discounts of 20% and 40% are given successively.
Substituting the values in the formula, we get:
Selling price = 700 × (1 - 20/100) × (1 - 40/100)
Selling price = 700 × 0.8 × 0.6
Selling price = Rs. 336
Therefore, the selling price of the ball after applying the two successive discounts is Rs. 336.

YourMockTest.com — Free Study Material

Q66. Answer: (b) 41 years

Given:

The average age of 120 members of a society is 62.5 years.

30 new members are added to the society.

The average age of all the members becomes 58.2 years.

Formula:

To find the average, we can use the formula:

Average = (Sum of all values) / (Total number of values)

Solution:

Let the average age of the 30 new members be x.

According to the given information, we can write the following equations:

The average age of 120 members = 62.5

Total number of members after addition = 120 + 30 = 150

The average age of all 150 members = 58.2

Using equations (1) and (3), we can write:

(120 × 62.5 + 30x)/150 = 58.2

Simplifying this equation, we get:

7500 + 30x = 8730

30x = 1230

x = 41

Therefore, the average age of the newly joined members is 41 years.

Alternate Method

Calculate the total sum of ages before and after the new members arrived:

Total sum before = 120 × 62.5 = 7500 years

Total sum after = 150 × 58.2 = 8730 years

Total age of new members = Total sum after - Total sum before = 8730 - 7500 = 1230 years

The average age of new members = Total age of new members / Number of new members = 1230 / 30 = 41 years.

So, the average age of the newly joined members is 41 years.

Q67. Answer: (c) Rs. 20000

Shortcut TrickWe can solved this from given ratio:Income = Expenditure + Saving

9 = 5 : 4

Then,

Rahul's Income 9 → 36,000 (given income)

Rahul's Expenditure 5 → 20,000

Therefore Rahul's Expenditure is Rs. 20,000

Given:

The ratio of Rahul's expenditure and savings is 5: 4.

Rahul's income is Rs. 36000.

Solution:

Let the expenditure and savings of Rahul be 5x and 4x, respectively, where x is a common factor.

We know that the sum of the parts in a ratio is equal to the total number of parts. Therefore, the total parts in the ratio 5:4 are 5+4=9.

So, 5x is the part that represents the expenditure and 4x is the part that represents the savings.

We are given that Rahul's income is Rs. 36000. Therefore, we can write:

5x + 4x = 9x = 36000

Solving for x, we get:

x = 36000/9 = 4000

Hence, Rahul's expenditure is 5x = 5 × 4000 = Rs. 20,000.

YourMockTest.com - Free Study Material

Q68. Answer: (a) 9/2√14

Given:

cos B=5/9

Concept used:

1. cosecα = 1/sinα

2. $\sin^2\alpha + \cos^2\alpha = 1$

Calculation:

According to the concept,

cos B=5/9

=> $\cos^2 B=(5/9)^2$

=> $\cos^2 B=25/81$

=> $(1 - \cos^2 B)=(1 - 25/81)$

=> $\sin^2 B=56/81$

=> $\text{cosec}^2 B=81/56$

=> cosec B=√(81/(4 × 14))

=> cosec B=9/(2 √14)

Therefore The value of cosec B is 9/(2 √14).

Q69. Answer: (c) Rs. 310

Shortcut Trick

Total simple interest percentage for 3 years = 3 × 10% = 30%.

The total Amount becomes 100% (Principal) + 30% (Interest) = 130%.

Given 130% of Principal = Rs. 403

Principal (100%) = (403 ÷ 130) × 100 = 31 × 10 = 310

Therefore The correct answer is Rs. 310.

Alternate Method

Given:

Amount (A) = Rs. 403

Time (T) = 3 years

Rate (R) = 10% per annum

Year 0

Year 1

Year 2

Year 3

+10%

+10%

+10%

P = ?

A = 403

Total Interest = 3 × 10% = 30%

Formula Used:

Simple Interest (SI) = (P × R × T) ÷ 100

Amount (A) = P + SI = P × (1 + (R × T) ÷ 100)

Calculations:

=> Let the principal sum be P.

=> 403 = P × (1 + (10 × 3) ÷ 100)

=> 403 = P × (1 + 30 ÷ 100)

=> 403 = P × (1 + 0.3)

=> 403 = 1.3 × P

=> P = 403 ÷ 1.3

=> P = 4030 ÷ 13

=> P = Rs. 310

YourMockTest.com — Free Study Material

Therefore The correct answer is Rs. 310.

Additional Information

Principal from Amount Rule

When only the final amount (A) is given in simple interest, the principal (P) can be found directly using: P = (A × 100) ÷ (100 + R × T).

Simple vs Compound Interest

Simple interest is calculated only on the original principal, whereas compound interest is calculated on both the initial principal and the accumulated interest from previous periods.

Effective Rate Concept

For simple interest, the effective rate for multiple years is simply the product of Rate and Time (Effective Rate = R × T %). This allows direct percentage-based calculations without using the standard long formulas.

Q70. Answer: (a) 18

Given:

x^4+1/(x^4)=47

Concept used:

1. $(a + b)^2 - 2ab = a^2 + b^2$

2. $(a + b)^3 = a^3 + b^3 + 3ab(a + b)$

Calculation:

According to the concept,

x^4+1/(x^4)=47

=> $(x^2+1/(x^2))^2 - 2 \times x^2 \times 1/(x^2)=47$

=> $(x^2+1/(x^2))^2 - 2 =47$

=> $(x^2+1/(x^2))^2 = 47 + 2$

=> $(x^2+1/(x^2))^2 = 49$

=> $(x^2+1/(x^2)) = 7$

=> $(x +1/x)^2 - 2 \times x \times 1/x = 7$

=> $(x +1/x)^2 - 2 = 7$

=> $(x +1/x)^2 = 7 + 2$

=> $(x +1/x)^2 = 9$

=> $(x +1/x) = 3$ ....(1)

=> $(x +1/x)^3 = 3^3$

=> $x^3 +1/(x^3) + 3x \times 1/x (x + 1/x) = 3^3$

=> $x^3 +1/(x^3) + 3 \times 3 = 3^3$ (From 1)

=> $x^3 +1/(x^3) = 27 - 9$

=> $x^3 +1/(x^3) = 18$

Therefore The value of $x^3+1/(x^3)$ is 18.

Shortcut TrickIfx4 + 1/x4 = P, then $x^2 + 1/x^2 = \sqrt{(P + 2)} = Q$

And $x + 1/x = \sqrt{(Q + 2)} = S$

$x^3 + 1/x^3 = S^3 - 3S$

Now, x^4 + 1/x^4 = 47

x2 + 1/x2 = √(47 + 2) = √49 = 7

x + 1/x = √(7 + 2) = √9 = 3

x3 + 1/x3 = 33 - 3 × 3

=> 27 - 9 = 18

Therefore x3 + 1/x3 is 18.

Q71. Answer: (c) 39 kg

Given:

The average weight of 20 persons = 60 kg

The average weight of 21 persons = 59 kg

Formula:

Average = (Sum of observations) / (Number of observations)

Solution:
Let the weight of the new person be x kg.
According to the given information, we can write the following equations:
(Sum of weights of 20 persons) / 20 = 60
(Sum of weights of 21 persons) / 21 = 59
We can simplify the second equation as:
[(Sum of weights of 20 persons) + x]/21 = 59
Multiplying both sides by 21, we get:
(Sum of weights of 20 persons) + x = 21 × 59
(Sum of weights of 20 persons) + x = 1239
Substituting the value of the sum of weights of 20 persons from the first equation, we get:
20 × 60 + x = 1239
x = 1239 - 1200
x = 39
Therefore, the weight of the new person is 39 kg.

Q72. Answer: (d) sec A - tan A

Given:
√(1 - sin A)/√(1 + sin A)
Concept used:
1. $\sin^2 \alpha + \cos^2 \alpha = 1$
2. $(a + b)(a - b) = (a^2 - b^2)$
3. $\sec \alpha = 1/\cos \alpha$
4. $\tan \alpha = \sin \alpha/\cos \alpha$
Calculation:
According to the concept,
√(1 - sin A)/√(1 + sin A)
=> √(1 - sin A)/(1 + sin A)
=> √((1 - sin A)²)/(1 + sin A) × (1 - sin A)
=> √((1 - sin A)²)/(1 - sin²A)
=> √((1 - sin A)²)/(cos²A)
=> (1 - sin A)/(cos A)
=> (1/(cos A) - (sin A)/(cos A))
=> sec A - tan A
Therefore The simplified value of √(1 - sin A)/(1 + sin A) is sec A - tan A.

Q73. Answer: (a) 2

Given:
K+1/K-2=0 and K > 0
Concept used:
$(a^2 + 2ab + b^2) = (a + b)^2$
Calculation:
(K+1/K)=2
=> $k^2 - 2k + 1 = 0$
=> $(k - 1)^2 = 0$
=> (k - 1) = 0
=> k = 1
Now, K^(17)+1/(K¹²)?
=> (1)^(17)+1/((1)¹²)?
=> 1 + 1
=> 2
Therefore Option 1 is the correct answer.

Q74. Answer: (d) 40 minutes

Shortcut Trick

Initial Speed = 40 ÷ (24/60) = 100 km/hr.

New Speed = 100 − 40 = 60 km/hr.

New Time = 40 ÷ 60 hours = (40 ÷ 60) × 60 minutes.

New Time = 40 minutes.

Therefore The correct answer is 40 minutes.

Alternate Method

Given:

Distance = 40 km

Initial time = 24 minutes

Formula Used:

Speed = Distance ÷ Time

Calculation:

=> Initial time in hours = 24 ÷ 60 = 2/5 hours

=> Initial speed = 40 ÷ (2/5) = 100 km/hr

=> Decreased speed = 100 − 40 = 60 km/hr

=> New time taken = Distance ÷ New speed

=> New time = 40 ÷ 60 hours

=> New time in minutes = (40 ÷ 60) × 60 = 40 minutes

Therefore The correct answer is 40 minutes.

Additional Information

Unit Conversion

To convert km/hr to m/s, multiply the speed by 5/18. To convert m/s to km/hr, multiply by 18/5.

Average Speed

Average Speed = Total Distance ÷ Total Time. If the distance covered is equal in both parts of the journey, Average Speed = (2 × S1 × S2) ÷ (S1 + S2).

Relative Speed

When two objects move in the same direction, Relative Speed = S1 − S2. When moving in opposite directions, Relative Speed = S1 + S2.

Q75. Answer: (a) 110

Calculation:

Hence,

L1 = 120 + 80 + 40 + 30 + 20 = 290

L2 = 50 + 60 + 120 + 100 + 70 = 400

Now, (L2 - L1) = 400 - 290 = 110

Therefore The value of (L2 - L1) is 110.

Q76. Answer: (c) Aditi said that she was not invested in the project anymore.

The correct answer is Aditi said that she was not invested in the project anymore.

Key Points

• To convert a direct speech sentence to indirect speech, we usually follow certain grammar rules.

• Here's the breakdown of the conversion for this particular sentence:

• The reporting verb "said" remains unchanged.

• Commas and inverted commas are removed and the conjunction 'that' is added.

• The pronoun "I" is changed to the third-person pronoun "she" because we are reporting someone else's words.

• The verb tense undergoes a backshift. Since the original sentence is in the present tense ("am"), it is changed to the past tense ("was").

• The phrase "not invested" remains the same.

• The phrase "anymore" remains the same.

• Now let's analyze why the correct answer is option 3:

• Option 1: "Aditi said that she had not invested in the project anymore." This option incorrectly uses the past perfect tense ("had

not invested") instead of the simple past tense ("was not invested").

• Option 2: "Aditi said that she is not invested in the project anymore." This option uses the present tense ("is") instead of the past tense ("was").

• Option 3: "Aditi said that she was not invested in the project anymore." This option correctly follows the grammar rules by changing the verb tense to the past tense ("was") and maintains the correct structure and meaning of the original sentence.

• Option 4: "Aditi said that she do not invested in the project anymore." This option is grammatically incorrect because it uses "do not invested," which is an incorrect verb form.

Q77. Answer: (a) To suffer a loss by acting rashly

The correct answer is: To suffer a loss by acting rashly.

Key Points

• The idiom "to burn one's finger" is used to describe a situation where someone experiences a negative consequence or suffers a loss due to their own hasty or impulsive actions. It implies that the person has made a mistake or taken a risk without considering the potential negative outcome. Option 1, "To suffer a loss by acting rashly," best captures the meaning of the idiom.

• Let's analyze the other options:

• To accidentally touch a hot utensil. This option suggests a literal interpretation of the idiom, relating to physical contact with a hot object. However, the actual meaning of "to burn one's finger" is figurative and does not refer to physical burns caused by touching a hot utensil.

• A question without any agreed answer. This option does not accurately capture the meaning of the idiom. "To burn one's finger" does not pertain to unanswered questions but rather to the negative consequences of impulsive actions.

• To have one's finger chopped. This option presents a literal interpretation of the idiom but does not convey its intended figurative meaning. "To burn one's finger" does not refer to physical harm such as having a finger chopped off.

• Therefore, option 1, "To suffer a loss by acting rashly," is the correct answer as it best expresses the figurative meaning of the idiom "to burn one's finger."

Q78. Answer: (c) Slippery

The solution is in Hindi. Read it online.

Q79. Answer: (b) Conscription

The solution is in Hindi. Read it online.

Q80. Answer: (d) Lights flickered in the bush behind him.

Here the correct answer is 'Lights flickered in the bush behind him.'

Key Points

• The correct sentence with no spelling error is: Lights flickered in the bush behind him.

• This sentence is correct because all the words are spelled accurately.

• "Lights" is the correct spelling of the word referring to sources of illumination.

• "Flickered" is the correct past tense form of the verb "flicker," meaning to shine or flutter intermittently.

• "In" and "the" are common prepositions and articles, respectively.

• "The" is used before "bush" to specify a particular bush.

• "Behind" is a preposition indicating the location in relation to something else.

• "Him" is the correct pronoun used as an object of the preposition.

• Therefore, the correct answer is option 4) "Lights flickered in the bush behind him" because it does not contain any spelling errors and accurately conveys the intended meaning.

Additional Information

• Now, let's analyze the other options:

• Lites flickered in the bussh behind him.

• Spelling errors: "Lites" should be spelled as "Lights," and "bussh" should be spelled as "bush." Both words have incorrect spellings, rendering the sentence incorrect.

• Lights flicered in the bush behind him.

• Spelling error: "Flicered" should be spelled as "flickered." The missing "k" makes this sentence incorrect.

• Lights flikered in the bush behind him.

• Spelling error: "Flikered" should be spelled as "flickered." The missing "c" makes this sentence incorrect.

Q81. Answer: (c) The meaning of the culture was being lost.

The correct passive form of the sentence is: The meaning of the culture was being lost.

Key Points

• To convert an active voice sentence to passive voice, we generally follow these grammar rules:

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

• The verb is changed to a passive form, typically by adding a form of the auxiliary verb "be" (in this case, "was") and the past participle of the main verb ("lost").

• The subject of the active voice sentence becomes the agent (or is omitted entirely) in the passive voice sentence, introduced by the preposition "by" (when mentioned).

• Therefore, the correct answer is option 3) "The meaning of the culture was being lost" as it accurately represents the passive form of the given sentence, following the appropriate grammar rules.

Q82. Answer: (d) SRPQ

The correct arrangement of the sentence is indeed: SRPQ.

Key Point

• The correct answer is option 4) SRPQ because it follows the logical flow of the sentence.

• It starts by introducing the subject and their action ("Corals are predators and they extend their tentacles").

• Then, it provides the timing and method of their feeding ("at night and capture tiny organisms like zooplankton, small fish, or other potential food items").

• Finally, it describes the nature of these floating food items and the presence of stinging cells ("that happen to be floating by with stinging cells called nematocysts").

• This order ensures the sentence is coherent and conveys the intended meaning.

The correct order of the sentence parts is as follows:

S. Corals are predators and they extend their tentacles

R. at night and capture tiny organisms like zooplankton, small

P. fish, or other potential food item that happen

Q. to be floating by with stinging cells called nematocysts

Q83. Answer: (d) avenge

The solution is in Hindi. Read it online.

Q84. Answer: (b) Nephrologist

The solution is in Hindi. Read it online.

Q85. Answer: (c) Dawdling

The solution is in Hindi. Read it online.

Q86. Answer: (b) Randomly doing something, the outcome of which is unknown

Here the correct answer is Randomly doing something, the outcome of which is unknown.

Key Points

• The idiom "a shot in the dark" is often used to describe an action or attempt that is taken without much knowledge or certainty about its success.

• It implies a situation where one is making a guess or trying something without any real expectation of achieving the desired outcome.

• It suggests that the chances of success are very low or uncertain, similar to shooting at a target in the dark without being able to see it clearly.

• Example: I wasn't sure which answer was correct, so I took a shot in the dark and picked option C.

• Options 1) "Shooting in the night," 3) "A blind man's cane," and 4) "Looking at the stars" do not capture the intended meaning of the idiom.

Therefore, the correct answer is option 2.

Q87. Answer: (a) provide education at

Here the correct answer is Provide education at.

Key Points

The correct substitution for the underlined phrase is "provide education at".

The preposition 'to' is followed by the first form of the verb.

Thus, 'to' will be followed by 'provide' and not 'provided'.

The correct preposition to use after education is 'at'.

Thus, the correct answer is Option 1.

Correct Sentence:

Additional Information

• The word "at" has multiple meanings and can be used in various contexts. Here are some common meanings of "at" with example usages:

• Location: "At" can indicate a specific location or position.

• She is waiting at the bus stop.

• Time: "At" can indicate a specific time or moment.

• The meeting starts at 9 a.m.

• Direction or Movement: "At" can indicate a direction or movement towards a specific place.

• He threw the ball at the target.

• Purpose or Function: "At" can indicate the purpose or function of something.

• She excels at playing the piano.

• Price or Rate: "At" can indicate a price or rate.

• The item is available at $50.

• Involvement or Participation: "At" can indicate involvement or participation in an activity or event.

• He was present at the meeting.

Q88. Answer: (a) hair short

The correct answer is option 1) "hair short."

Key Points

• In the given sentence, the word "haired" is incorrect.

• The word "short" is an adjective that describes the length of her hair.

• The noun here is 'hair' which is being described by the adjective 'short'.

• Thus, the correct answer is Option 1.

The correct sentence: She cuts her hair short in the summer.

Additional Information

• Haired means having hair of a specified kind.

• Example: "a curly-haired boy"

Q89. Answer: (a) No improvement

Here the correct answer is No improvement.

Key Points

• The correct answer is option 1) No improvement.

• The original sentence is grammatically correct and effectively conveys the intended meaning.

• The phrase "all but" is idiomatic and means "almost" or "nearly." It is used to emphasize that herbalism is extremely rare or close to being extinct in the Western world. The placement of "all but" before "extinct" is appropriate in this sentence.

• Option 2) "Herbalism has become but all an extinct skill" changes the word order and does not improve the sentence. It disrupts the natural flow of the sentence and sounds awkward.

• Option 3) "Herbalism become an extinct skill" omits the auxiliary verb "has" and is grammatically incorrect. The sentence requires the present perfect tense "has become" to indicate an action that started in the past and continues to the present.

• Option 4) "Herbalism has become but an extinct skill" rearranges the word order, but it is not necessary. The original sentence is already clear and concise.

• Therefore, the correct answer is option 1) No improvement, as the original sentence is grammatically correct and effectively conveys the intended meaning.

Q90. Answer: (a) Blasphemy

The correct answer is: Blasphemy.

Key Points

• The word "sacrilege" refers to the violation or disrespect of something considered sacred or holy. It implies an act of irreverence or profanity towards religious or sacred beliefs, objects, or practices.

• Example: "Vandalizing a church is considered sacrilege."

• Option 1) Blasphemy also carries a similar meaning. It refers to irreverence, disrespect, or profanity directed towards religious or sacred beliefs or practices. Blasphemy often involves speaking or acting in a way that insults or shows contempt for religious beliefs or deities.

• Example: "Her remarks about God were seen as blasphemy by the religious community."

• Thus, the correct answer is Option 1.

Additional Information

• Option 2) Modification does not have the same meaning as sacrilege. It refers to the act of making changes or alterations to something.

• Example: "The car underwent several modifications to improve its performance."

• Option 3) Consecration is the act of declaring or dedicating something as sacred or holy, which is the opposite of sacrilege.

• Example: "The bishop performed the consecration ceremony for the new church."

• Option 4) Reverence is the feeling or attitude of deep respect, honor, and awe towards someone or something, which is the opposite of sacrilege.

• Example: "The students showed reverence towards their wise and respected teacher."

• Therefore, the correct answer is option 1) Blasphemy, which shares a similar meaning with sacrilege.

Q91. Answer: (a) knock

Here the correct answer is Knock.

Key Points

• In the given sentence, the appropriate option is "knock."

• "Knock" means to strike a surface with a sharp blow using a closed hand or an object, typically to attract attention or gain entry.

• In the context of the sentence, the rule is to always knock before entering, indicating the act of tapping or striking a door or surface to announce one's presence and await permission or instruction to enter.

• Example: He stood outside the door and gave a gentle knock.

• Therefore, the correct answer is option 1) knock, as it accurately reflects the action described in the sentence.

Additional Information

• The other options do not fit the context or meaning of the sentence:

• rub: To apply pressure and move one's hand or an object back and forth against a surface. This does not align with the action of announcing oneself before entering.

• blink: To close and open one's eyes quickly. This is unrelated to the action of entering a space.

• resist: To withstand or oppose something. This does not relate to the act of announcing oneself before entering but rather implies a different context of resistance or opposition.

Q92. Answer: (a) Clovver

Here the correct answer is Option 1.

Key Points

• The incorrectly spelled word is: "Clovver".

• The correct spelling is "Clover."

• Clover: A type of plant often found in fields and gardens, known for its trifoliate leaves and small, rounded flowers.

• Example: "The field was covered in lush green clover."

• Therefore, the correct answer is option 1) Clovver, which is misspelled as it should be spelled as "Clover."

Additional Information

• Now let's look at the other options:

• Sharpen: Correctly spelled. It means to make something sharp or to enhance the sharpness of an object.

• Example: "Please sharpen this pencil for me."

• Sunrise: Correctly spelled. It refers to the daily event of the sun rising above the horizon in the morning.

• Example: "We woke up early to watch the beautiful sunrise."

• Happen: Correctly spelled. It means to occur or take place.

• Example: "Did anything interesting happen while I was away?"

Q93. Answer: (d) Today, in fit of frenzied rage and

The correct answer is option 4) "Today, in fit of frenzied rage and."

Key Points

• The correct phrase should be "Today, in a fit of frenzied rage and jealousy."

• The error lies in the absence of the article "a" before "fit."

• Including the article "a" before "fit" helps to clarify that it refers to a single instance or occurrence of frenzied rage and jealousy.

• Without the article, the sentence sounds incomplete or lacking proper grammar.

• Option 4) correctly identifies the segment containing the error.

Therefore, the correct sentence should be: "Today, in a fit of frenzied rage and jealousy, you would have killed me, your brother."

Q94. Answer: (c) Essential

The correct answer is: Essential.

Key Points

• The word "accessory" refers to something that is additional or supplementary to the main thing. It is not essential or necessary on its own. An accessory complements or enhances the main object or person.

• Example: A handbag is an accessory to complete a woman's outfit.

• The word "essential" refers to something that is absolutely necessary, crucial, or fundamental. It indicates that an item, quality, or action is indispensable and cannot be neglected or omitted.

• Example sentence: Water is essential for survival.

• Therefore, the correct answer is option 3) Essential, as it represents the opposite meaning of "accessory" by indicating something that is necessary or indispensable.

Additional Information

• Now let's look at the other options:

• Substitute: This word is not the opposite of "accessory." A substitute is something that can replace or act as a replacement for another thing.

• Example: I used almond milk as a substitute for regular milk in the recipe.

• Surplus: This word does not have an opposite meaning to "accessory." Surplus refers to an excess or an amount that exceeds what is needed.

• Example: The company had a surplus of inventory that needed to be sold.

• Option: This word is not the opposite of "accessory." An option refers to a choice or alternative that is available.

• Example: We have several options for dinner tonight - Italian, Chinese, or Indian cuisine.

Q95. Answer: (a) 70 year older

Here the correct answer is 70 years older.

Key Points

• The error is in the part "70 years older" of the sentence.

• The phrase "70 year older" is not appropriate in this context.

• The term "older" implies a comparison of age between two entities, but in this sentence, we are not comparing India's age to anything else.

• Instead, we should use the phrase "70 years old" to indicate the duration of time that has passed since India became a Republic.

• Thus, the correct answer is Option 1.

Correct Sentence: India has turned 70 years old as a Republic.

Q96. Answer: (a) published

The solution is in Hindi. Read it online.

Q97. Answer: (d) life

Here the correct answer is Life.

Key Points

• To understand why "life" is the correct answer, we need to consider the context of the sentence.

• The sentence is discussing the rebound or recovery of life expectancy in different regions.

• The word "life" accurately represents the concept being discussed, which is the average lifespan or life expectancy of individuals.

• Let's examine the other options:

• game: This word does not fit the context and is unrelated to the topic of life expectancy.

• animal: This word is also unrelated to the context of life expectancy and does not make sense in the sentence.

• hunger: While the word "hunger" is relevant to health and well-being, it is not the appropriate word to fill in the blank in relation to life expectancy rebounding.

• Therefore, the correct answer is option 4) life, as it accurately represents the concept of life expectancy and fits the context of the sentence.

Q98. Answer: (a) while

The solution is in Hindi. Read it online.

Q99. Answer: (c) beats

Here the correct answer is Beats.

Key Points

• To understand why "beats" is the correct answer, we need to consider the context of the sentence.

• The sentence is discussing how Norway is the only country that surpasses or exceeds its pre-pandemic life expectancy in 2021.

• The word "beats" accurately conveys the idea of surpassing or outperforming something, in this case, the pre-pandemic life expectancy.

• Let's examine the other options:

• probes: This word does not fit the context and does not convey the intended meaning of surpassing or exceeding life expectancy.

• lifts: This word does not fit the context either. While it can convey the idea of improvement, it does not accurately convey the specific meaning of surpassing or outperforming the pre-pandemic life expectancy.

• clubs: This word is unrelated to the topic of life expectancy and does not fit the context of the sentence.

• Therefore, the correct answer is option 3) beats, as it accurately represents the concept of Norway exceeding its pre-pandemic life expectancy in 2021, distinguishing it from other countries.

Q100. Answer: (b) likely

Here the correct answer is Likely.

Key Points

• To understand why "likely" is the correct answer, we need to consider the context of the sentence.

• The sentence is discussing the hypothetical scenario of how things would have been without the pandemic.

• The word "likely" accurately conveys the idea that it is probable or expected that everywhere would have been better off in terms of life expectancy without the pandemic.

• Let's examine the other options:

• shortly: This word does not fit the context and does not accurately convey the intended meaning. It does not express the likelihood or probability of a situation.

• nicely: This word is unrelated to the context and does not convey the intended meaning of probability or likelihood.

• bluntly: This word does not fit the context either. It does not convey the intended meaning of probability and is unrelated to the hypothetical scenario being discussed.

• Therefore, the correct answer is option 2) likely, as it accurately represents the idea that it is probable or expected that everywhere would have been better off in terms of life expectancy without the pandemic.

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

YourMockTest.com — Free Study Material