SSC CHSL Tier-1 2022: Official Paper (Held On: 09 March, 2023 Shift 3) (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.

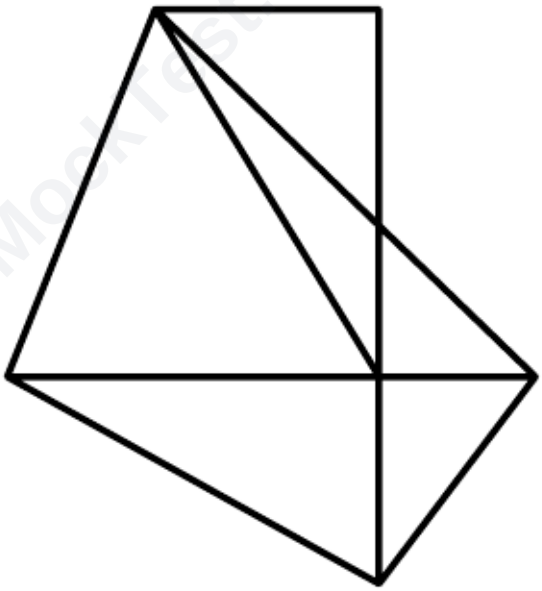
yourmocktest.com/pyq/ssc-chsl/ssc-chsl-tier-1-2022-official-paper-held-on-09-march-2023-shift…

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

YourMockTest.com — Free Study Material

ENGLISH LANGUAGE

Q1. How many triangles are there in the given figure?



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

Q2. By interchanging the given two signs which of the following equation will not be correct?

• and ÷

I. 27 ÷ 3 - 18 × 3 + 9 = 24

II. 12 ÷ 8 × 12 + 16 - 7 = 19

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

Q3. In a certain code language, ‘CAPTURES’ is coded as ‘24111206182219’, ‘DECORATE’ is coded as ‘23524159175’. What is the code for ‘EDUCATOR’ in that code language?

(a) 2246326201219
(b) 2246326201218
(c) 224632620218
(d) 2246322601218

Q4. In a certain code language, ‘RAMEN’ is coded as ‘RIQEV’. What is the code for ‘MODEL’ in that code language?

(a) PIISR
(b) PIHSQ
(c) PHHHR
(d) PHHSQ

Q5. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

TDS, SIJ, RNA, QSR, ?

(a) PXI
(b) POI
(c) PYM
(d) PXK

Q6. 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)

(56, 121, 242)

(78, 165, 726)

(a) (28, 110, 220)
(b) (36, 99, 198)
(c) (44, 88, 166)
(d) (62, 98, 187)

Q7. M is the father of L. R is the father of M. Q is the husband of S. L is the brother of Q. How is S related to M?

(a) Mother
(b) Daughter in law
(c) Niece
(d) Daughter

Q8. 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.

Pen : Write :: Spade : ?

(a) Magnify
(b) Dig
(c) Grind
(d) Draw

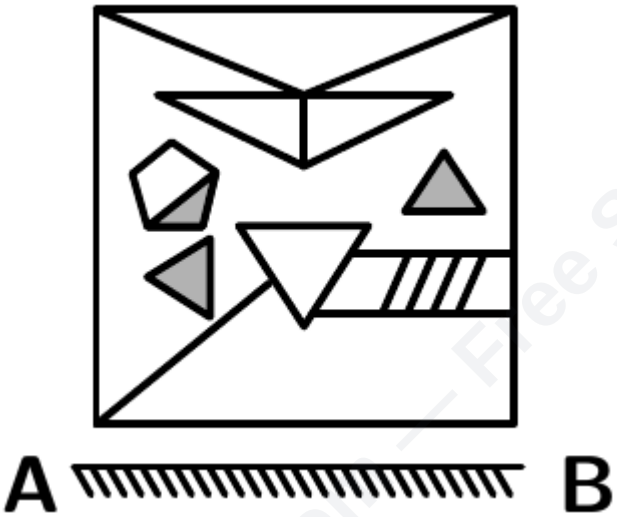
Q9. Select the option that is related to the fifth number in the same way as the first number is related to the second number and third number is related to fourth number.

5432 : 2345 :: 6192 : 1269 :: 7835 : ?

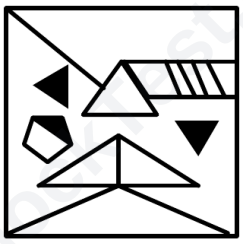
(a) 3587
(b) 3578
(c) 5387
(d) 5378

Q10. If a mirror is placed on the line AB, then out of the option figures which figure will be the right image of the question figure?

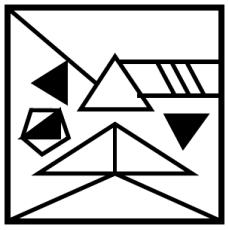
YourMockTest.com — Free Study Material



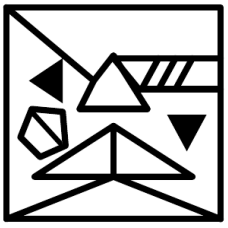
(a)



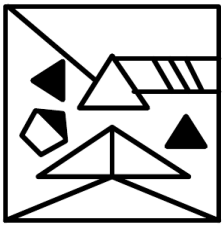
(b)



(c)

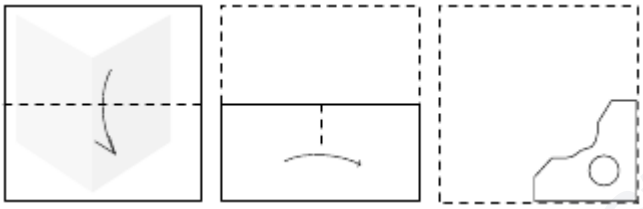


(d)

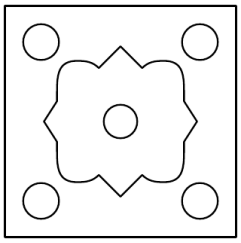


Q11. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?

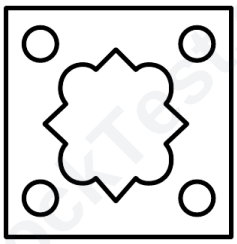
YourMockTest.com — Free Study Material



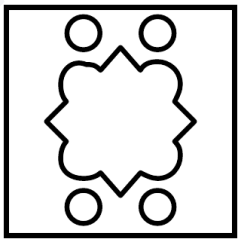
(a)



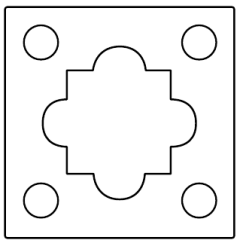
(b)



(c)



(d)



Q12. 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.

Yuan : China :: Yen : ?

(a) United Kingdom
(b) Srilanka
(c) Pakistan
(d) Japan

Q13. 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)

(18, 9, 36)

(36, 18, 72)

(a) (32, 16, 64)

YourMockTest.com — Free Study Material

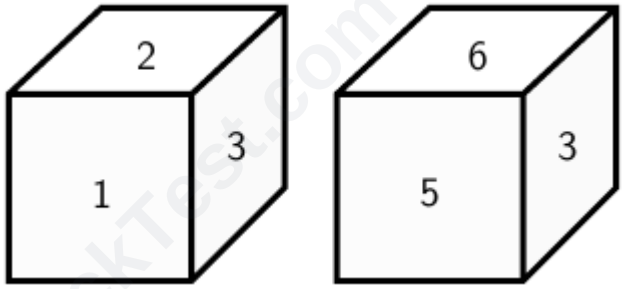
(b) (24, 12, 36)
(c) (58, 29, 118)
(d) (46, 33, 132)

Q14. In the following question, select the missing number from the given series.

20, 22, 26, 32, 40, ?

(a) 48
(b) 54
(c) 52
(d) 50

Q15. Two different positions of the same dice are shown, the six faces of which are numbered from 1 to 6. Select the number that will be on the face opposite to the one having '4'.



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

Q16. In the following question, select the odd letter/letters from the given alternatives.

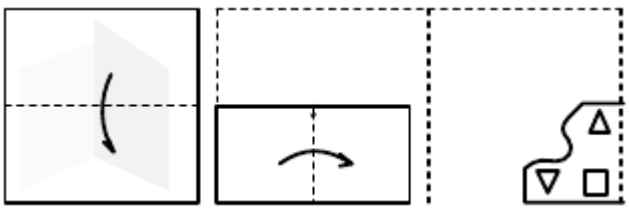
(a) PRV
(b) OQT
(c) ACF
(d) XZC

Q17. After arranging the given words according to dictionary order, which word will come at ‘Fourth’ position?

1. Convert
2. Convex
3. Convect
4. Convent
5. Convict

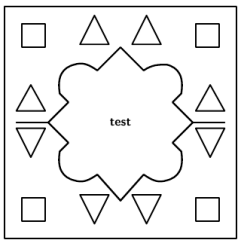
(a) Convert
(b) Convex
(c) Convict
(d) Convent

Q18. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?

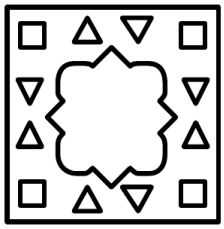


YourMockTest.com – Free Study Material

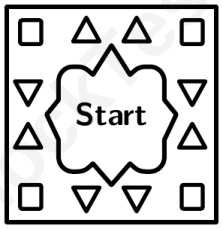
(a)



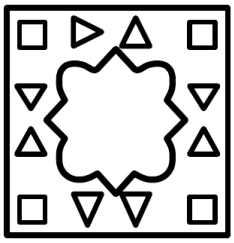
(b)



(c)



(d)



Q19. If 27 A 11 A 8 = 8 and 48 A 37 A 2 = 9, then 56 A 5 A 3 = ?

(a) 46
(b) 47
(c) 45
(d) 48

Q20. 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 cherry are pink.

II. Some blue are pink.

Conclusion:

I. Some blue are not cherry.

II. All pink are cherry.

III. Some pink are cherry.

(a) Both conclusions I and II follows
(b) All conclusion follows
(c) Only conclusion III follows
(d) Neither conclusion follows

YourMockTest.com — Free Study Material

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.

Dog : Bitch :: Bull : ?

(a) Vixen
(b) Cow
(c) Bee
(d) Goose

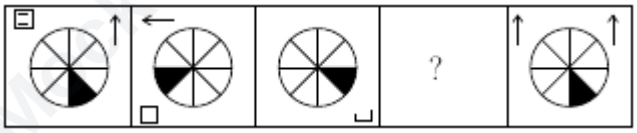
Q22. Select the option in which the numbers shares the same relationship in set as that shared by the numbers in the given set. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /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)

(59, 118, 236)

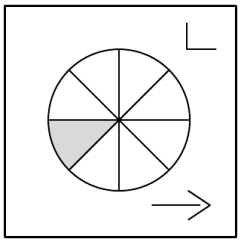
(64, 128, 256)

(a) (37, 74, 138)
(b) (63, 126, 242)
(c) (44, 88, 186)
(d) (82, 164, 328)

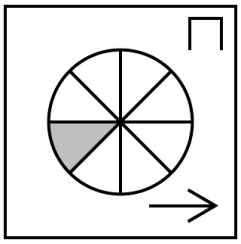
Q23. Select the figure from the given options that can replace the question mark (?) in the following series.



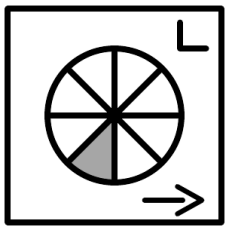
(a)



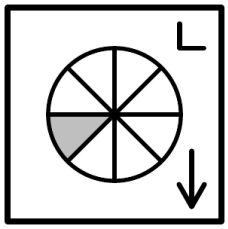
(b)



(c)



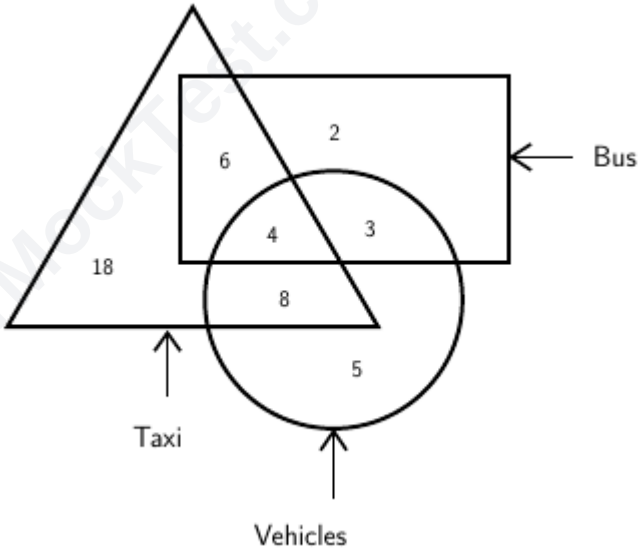
(d)



Q24. Three of the four group of words are alike in some manner. Select the odd group of words.

(a) (Sailor, Doctor, Painter)
(b) (Engineer, Servant, Grocer)
(c) (Factory, Garage, Casino)
(d) (Mechanic, Astronomer, Warrior)

Q25. What is the total number of buses?



(a) 13
(b) 14
(c) 15
(d) 7

GENERAL INTELLIGENCE

Q26. Which five-year plan was based on the ideas of Mahalanobis?

(a) Fourth five-year plan
(b) Third five-year plan
(c) First five-year plan
(d) Second five-year plan

Q27. Little Andaman in the south is separated from the Nicobar Islands by the _____.

(a) 8 Degree Channel
(b) 10 Degree Channel
(c) 7 Degree Channel
(d) 9 Degree Channel

YourMockTest.com — Free Study Material

Q28. For which of the following films, has Akshay Kumar won a National award?

(a) Raksha Bandhan
(b) Mission Mangal
(c) Rustom
(d) Bell Bottom

Q29. Which Indian javelin thrower has been suspended in 2022 (till 2025) for doping?

(a) Shivpal Singh
(b) Neeraj Chopra
(c) Kashinath Naik
(d) Devendra Jhajharia

Q30. Lingaraja Temple is situated in which of the following states of India?

(a) Odisha
(b) Karnataka
(c) Maharashtra
(d) Tamil Nadu

Q31. Which of the following statements is/are NOT correct?

I. Force per unit volume is called pressure.
II. Liquids can exert pressure on walls of containers.
III. Force acting on an object can cause a change in it state of motion but not its shape.

(a) Only I and II
(b) Only III
(c) I, II and III
(d) Only I and III

Q32. The Mahanadi basin does not extend over which state?

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

Q33. herSTART, an initiative implemented by the Gujarat University Startup and Entrepreneurship, was launched by _____ in October 2022.

(a) Prime Minister Narendra Modi
(b) President Draupadi Murmu
(c) Defence Minister Rajnath Singh
(d) Finance Minister Nirmala Sitharaman

Q34. Who was the first Indian Army officer to be promoted to the rank of field marshal?

(a) Vikram Batra
(b) Karam Singh
(c) Sam Manekshaw
(d) K M Cariappa

Q35. The 42^(nd)Amendment Act, 1976 of the Indian constitution has added which of the following in the preamble to the constitution?

(a) Secular
(b) Sovereign
(c) Democratic
(d) Republic

YourMockTest.com — Free Study Material

Q36. How many gold medals did India win in 2020 Tokyo Olympic Games?

(a) 2
(b) 1
(c) 0
(d) 3

Q37. Which among the following states ranked 1^(st) amongst "Achievers" states in the Logistics Ease Across Different States (LEADS) Report 2022?

(a) Maharashtra
(b) Assam
(c) Tamil Nadu
(d) Andhra Pradesh

Q38. Which country hosted the ICC Men's Cricket World Cup 2023?

(a) Australia
(b) South Africa
(c) India
(d) West Indies

Q39. The idea of the Preamble of the Indian Constitution is borrowed from the Constitution of _____.

(a) USSR (Present Russia)
(b) Canada
(c) Britain
(d) United States of America

Q40. _____ was the leading producing State of manganese ore accounting for 33% of total production during 2019-20 in India.

(a) Odisha
(b) Madhya Pradesh
(c) Maharashtra
(d) Karnataka

Q41. A _____ account is one which is maintained by an Indian Bank in the foreign countries usually in the currency of that country for the purpose of carrying out transactions there.

(a) NOSTRO
(b) VOSTRO
(c) LIBOR
(d) MIBOR

Q42. Which of the following disease is not caused by a mosquito bite?

(a) Elephantiasis
(b) Dengue
(c) Malaria
(d) Hepatitis

Q43. Who among the following devised a policy that came to be known as the Doctrine of Lapse?

(a) Lord Dalhousie
(b) Lord Hastings
(c) Lord Cornwallis
(d) Lord Minto

Q44. Which of the following is NOT an output device?

(a) Plotter
(b) Monitor
(c) Dot matrix printer

YourMockTest.com — Free Study Material

(d) Bar code reader

Q45. In which of the following ways of heat transfer no medium is required?

(a) Radiation and Conduction both
(b) Conduction
(c) Convection
(d) Radiation

Q46. In which year was the Arms Act disallowing Indians from possessing arms passed?

(a) 1876
(b) 1878
(c) 1877
(d) 1875

Q47. In the higher latitudes (50° - 70°) of Northern hemisphere the spectacular Coniferous forests are found. These are also called as _____.

(a) Veld
(b) Tundra
(c) Llanos
(d) Taiga

Q48. Which of the following shortcut key is used to save a file in MS-Word 365?

(a) Alt + S
(b) Alt + F
(c) Ctrl + S
(d) Ctrl + F

Q49. Which indigenous aircraft carrier was delivered to Indian Navy on July 28, 2022?

(a) INS Arihant
(b) INS Vikrant
(c) INS Shivaji
(d) INS Vikramaditya

Q50. Dhuska is the most popular food item of state of _____.

(a) Punjab
(b) Jharkhand
(c) Kerala
(d) Andhra Pradesh

QUANTITATIVE APTITUDE

Q51. The table given below shows the production of bike and truck by five companies.

	Production	
Companies	Bike	Truck
D	700	500
E	450	300
F	500	200
G	250	600
H	300	650

A1 = The difference between the total production of bikes and trucks by all the 5 companies.

A2 = The average production of bike by company D, F and H.

YourMockTest.com — Free Study Material

What is the value of (A2/A1)?

(a) 50
(b) 10
(c) 5
(d) 1

Q52. If tan x = 10/17 then what is the value of sin x?

(a) 17/√389
(b) 7/√389
(c) 10/√389
(d) 9/√389

Q53. Side of an equilateral triangle is 12 cm. What will be the radius of incircle of this equilateral triangle?

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

Q54. The average age of a class of 6 girls is x years. Four new girls having ages x - 2, x + 4, x + 8 and x + 10 joins the class. What is the new average age of the class?

(a) x - 2
(b) x + 2
(c) x + 5
(d) x + 1

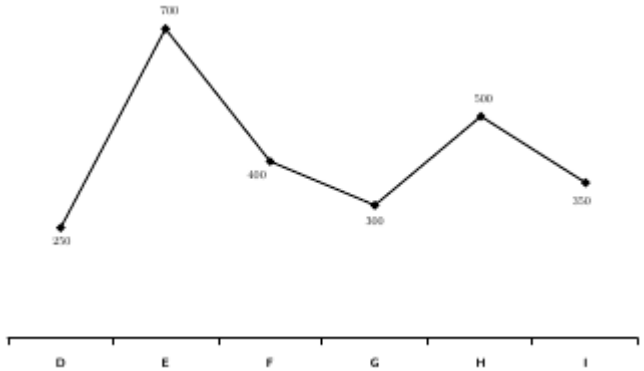
Q55. In ΔDEF, M and N are the points on sides DE and DF respectively. MN is parallel to EF and MN : EF = 2 : 5. If DE = 60 cm, then what is the length of ME?

(a) 48 cm
(b) 24 cm
(c) 54 cm
(d) 36 cm

Q56. Two circles touch each other externally at P, AB is a common tangent to the circle touching them at A and B then the value of angle APB is

(a) 90 degree
(b) 80 degree
(c) 95 degree
(d) 85 degree

Q57. The line chart given below shows the salary of 6 employees of a company.



What is the ratio of salary of F to the salary of H?

(a) 5 : 4
(b) 4 : 5
(c) 5 : 6

(d) 3 : 2

Q58. What is the value of $(a + b + 2c)(a^2 + b^2 + 4c^2 - ab - 2bc - 2ca)$?

(a) $a^3 - b^3 - c^3 - 6abc$
(b) $a^3 + b^3 + c^3 - 6abc$
(c) $a^3 - b^3 - 8c^3 - 3abc$
(d) $a^3 + b^3 + 8c^3 - 6abc$

Q59. X alone can complete a work in 18 days and Y alone can do the same work in half time of the time taken by X. Working together what part of the same work they can complete in a day?

(a) 1/3
(b) 1/5
(c) 1/4
(d) 1/6

Q60. What is the value of $(1 + \tan\theta - \sec\theta)(1 + \cot\theta + \text{cosec}\,\theta)$?

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

Q61. The circumference of the two circles is 77 cm and 154 cm respectively. What is the difference between their radii?

(a) 15 cm
(b) 13.25 cm
(c) 12.25 cm
(d) 16 cm

Q62. On Selling a watch at 4/5 of the marked price there is a loss of 10 percent. What will be the ratio of the marked price and cost price of the watch?

(a) 9 : 5
(b) 6 : 5
(c) 9 : 8
(d) 8 : 5

Q63. A car left 60 minutes early than the scheduled time but in order to reach its destination 280 km away in time, it has to slow its usual speed by 14 km/hr. What is the usual speed of the car?

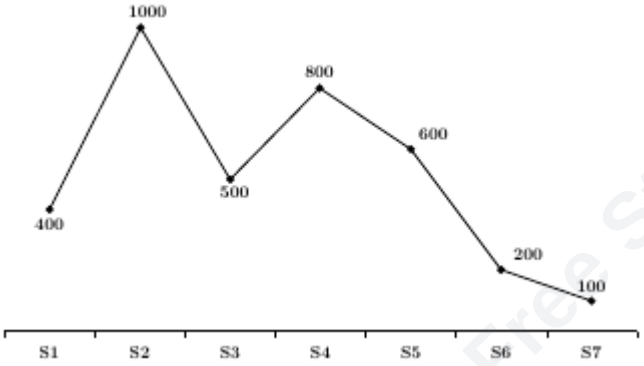
(a) 77 km/hr
(b) 70 km/hr
(c) 66 km/hr
(d) 63 km/hr

Q64. What is the value of $\sin^2 21 + \sin^2 69$?

(a) 0
(b) 2
(c) 0.5
(d) 1

Q65. The line chart given below shows the number of girls in 7 schools.

YourMockTest.com — Free Study Material



Number of girls in S1 is how much percent less than the number of girls in S2?

(a) 60 percent
(b) 150 percent
(c) 80 percent
(d) 100 percent

Q66. 1/2 of a certain sum is lent at 20 percent rate of interest. 1/5 of the sum is lent at 25 percent rate of interest. The remaining sum is lent at 10 percent rate of interest. If the simple interest received on the total sum for 2 years is Rs. 360, then what is the sum?

(a) Rs. 1200
(b) Rs. 800
(c) Rs. 1000
(d) Rs. 1400

Q67. Average weight of 15 persons is 30 kg. A new person whose weight is 78 kg joins the group. What will be the average weight of 16 persons?

(a) 31.5 kg
(b) 34 kg
(c) 33 kg
(d) 32 kg

Q68. Ram purchases two watches for Rs. 3,500. By selling one watch at a profit of 25 percent and the other at a loss of 10 percent he neither earns profit nor suffers loss in the whole transaction. What is the cost price of each watch?

(a) Rs. 1500 and Rs. 2000
(b) Rs. 1500 and Rs. 1720
(c) Rs. 1000 and Rs. 2500
(d) Rs. 1250 and Rs. 2250

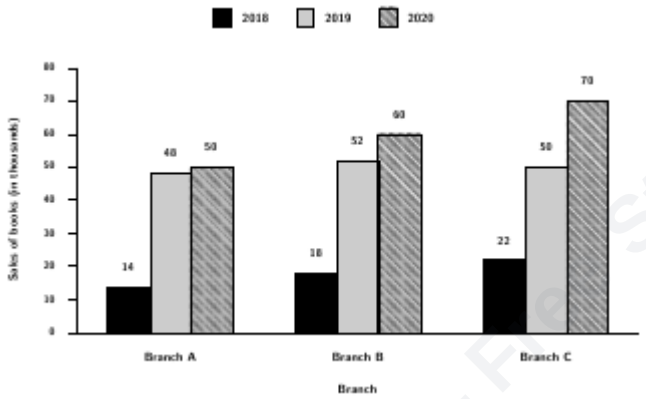
Q69. If 5A72B is divisible by 11, then what is the value of B - A?

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

Q70. The following bar graph shows the sales of books (in thousands) from 3 branches of a company in three consecutive years 2018, 2019 and 2020.

What is the ratio of the total sales of branch A for the year 2018 to the total sales of branch C for the year 2020?

YourMockTest.com — Free Study Material



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

Q71. If P : Q = 2 : 3, Q : R = 4 : 5 and R : S = 2 : 1, then what is the value of P : R : S?
(a) 10 : 5 : 4
(b) 16 : 30 : 15
(c) 9 : 10 : 15
(d) 12 : 25 : 10

Q72. If K + 1/K + 2 = 0 and K < 0, then what is the value of K^(17) + 1/(K^{11}) ?
(a) -17
(b) -2
(c) -1
(d) 0

Q73. The angle subtended by a chord AB on the circumference of a circle is 90 degrees. If the length of chord AB is 16 cm, what will be this circle's radius be?
(a) 8 cm
(b) 9 cm
(c) 12 cm
(d) 10 cm

Q74. What is the value of (1/2+3/4÷1/4+3/4÷1/2+1/4)/(3/4×1/4÷1/2-1/2÷3/4×1/4) ?
(a) 126/5
(b) 116/5
(c) 49/8
(d) 89/6

Q75. Out of two numbers, 20 percent of the smaller number is equal to 14 percent of the larger number. If the sum of both the numbers is 8942, then what is the value of the larger number?
(a) 4920
(b) 5260
(c) 5040
(d) 5160

GENERAL AWARENESS

Q76. Choose the word that is opposite in meaning to the given word.
Amiss
(a) Impeccable
(b) Marred

(c) Gaily
(d) Vitiated

Q77. Find the part of the given sentence that has an error in it. If there is no error, choose 'No error'.

A study finds that the average staff cost at a public sector bank is high than that at its private sector counterpart.

(a) No error
(b) its private sector counterpart.
(c) a public sector bank is high than that at
(d) A study finds that the average staff cost at

Q78. Choose the incorrectly spelt word.

(a) Hinder
(b) Sober
(c) Prunke
(d) Tension

Q79. Choose the sentence with no spelling error.

(a) Fine fthers do not make fine birds.
(b) Figne feathers do not make fine brds.
(c) Fine fathears do not make fine birds.
(d) Fine feathers do not make fine birds.

Q80. Improve the underlined part of the sentence. Choose 'No improvement' as an answer if the sentence is grammatically correct.

Fashion is not something that exists in dresses only.

(a) that exist of
(b) that existing at
(c) No improvement
(d) which exist on

Q81. Choose the word that is opposite in meaning to the given word.

Worried

(a) Leisure
(b) Withdraw
(c) Proceed
(d) Unconcerned

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

P. to focus more on edible oils/oilseeds than on wheat
Q. the MSP for wheat is up by 2 per cent while
R. that of rapeseed-mustard is up by 8.6 per cent,
S. perhaps indicating that the government wants

(a) QRSP
(b) RSPQ
(c) PSRQ
(d) PRQS

Q83. In the following question, out of the given four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase.

A bull market

(a) A fertile field
(b) A market where cattle is traded
(c) To boast
(d) Market where prices are rising

YourMockTest.com — Free Study Material

Q84. Fill in the blank with the most suitable word.

We won an unprecedented pardon from _____ -President Karzai, and Gulnaz was freed.

(a) then
(b) those
(c) at time
(d) later

Q85. Fill in the blank with an appropriate option.

The makers of sports drinks spend tens to hundreds of millions of dollars _____ their products each year.

(a) snacking
(b) lingering
(c) varying
(d) advertising

Q86. Choose the word that is opposite in meaning to the given word.

Despondent

(a) Precise
(b) Despaired
(c) Reproach
(d) Hopeful

Q87. Find the part of the given sentence that has an error in it. If there is no error, choose 'No error'.

In the five next years, the migration will surely stop.

(a) No error
(b) will surely stop.
(c) In the five next
(d) years, the migration

Q88. Fill in the blank with the most suitable word.

I _____ pay too much attention to the stories.

(a) hasn't
(b) didn't
(c) wasn't
(d) haven't

Q89. Choose the word that means the same as the given word.

Ponderous

(a) Unruly
(b) Wondrous
(c) Bluff
(d) Heavy

Q90. Choose the word that can substitute the given group of words.

One who offers one's services without being forced

(a) Skeptic
(b) Altruist
(c) Volunteer
(d) Scholar

Q91. In the following question, out of the given four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase.

Take your eye off the ball

(a) To stop paying attention for a moment
(b) Take someone for granted

YourMockTest.com — Free Study Material

(c) Take an advice from a wrong person
(d) Deteriorating and headed for complete disaster

Q92. Select the correct passive form of the given sentence.

The extremists have assassinated the President.

(a) The President has been assassinated by the extremists.
(b) The President had been assassinated by the extremists.
(c) The President is assassinated by the extremists.
(d) The President was assassinated by the extremists.

Q93. Fill in the blank with an appropriate option.

Illusions are usually related with _____ processes.

(a) visual
(b) audio
(c) oratory
(d) digital

Q94. Select the correct indirect form of the given sentence.

The father said to his daughter, “Your mother will be waiting for me.”

(a) The father told his daughter that her mother was waiting for me.
(b) The father told his daughter that her mother would be waiting for him.
(c) The father told his daughter that my mother would be waiting for him.
(d) The father told his daughter that her mother will be waiting for him.

Q95. Choose the word that can substitute the given group of words.

A person who is indifferent to pain and pleasures of life

(a) Vagabond
(b) Amateur
(c) Stoic
(d) Recluse

Directions

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.

First, the e-commerce industry has historically struggled with (1)____ issues. The Internet has made it possible for customers to place (2) __ from any location, but that convenience comes with a cost in (3) __ of shipping costs and order fulfillment times. But by hosting their e-commerce sites on cloud computing platforms, merchants can offload (4) __ of the server processing work. These third-party systems still (5) ____ full control over the look and feel of their online stores.

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

(a) flipping
(b) placing
(c) storing
(d) delivery

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

(a) systems
(b) series
(c) locals
(d) orders

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

(a) terms
(b) firms
(c) shifts

YourMockTest.com — Free Study Material

(d) tags

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

(a) must
(b) much
(c) many
(d) more

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

(a) placate
(b) fumigate
(c) retain
(d) discard

ANSWER KEY

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

SOLUTIONS

Q1. Answer: (b) 14

The triangles are:
So, there are '14' triangles in the given figure.
Hence, the correct answer is "Option 2".

Q2. Answer: (d) Only II

BODMAS Table:
Given equation I: 27 ÷ 3 - 18 × 3 + 9 = 24.
Now, if '+ and ÷' are interchanged, then:
=> 27 + 3 - 18 × 3 ÷ 9 = 24
=> 27 + 3 - 6 = 24
=> 30 - 6 = 24
= 24 = 24.
LHS = RHS.
Given equation II: 12 ÷ 8 × 12 + 16 - 7 = 19.
Now, if '+ and ÷' are interchanged, then:
=> 12 + 8 × 12 ÷ 16 - 7 = 19
=> 12 + 6 - 7 = 19
=> 18 - 7 = 19
= 11 ≠ 19
LHS ≠ RHS.

Here, Equation II are the incorrect after interchanging the given symbol.
Hence, the correct answer is "Option 4".

Q3. Answer: (b) 2246326201218

The logic followed here is:
1. Even position letters are coded as their place value.
2. Odd position letters are coded with the place value of the opposite letter.
'CAPTURES' is coded as '24111206182219',
'DECORATE' is coded as '23524159175',
Similarly, for EDUCATOR:
So, 'EDUCATOR' will be coded as '2246326201218'.
Hence, the correct answer is "Option 2".

Q4. Answer: (b) PIHSQ

The logic followed here is:
Hence, the correct answer is "Option 2".

Q5. Answer: (a) PXI

The logic followed here is:
Hence, the correct answer is "Option 1".

Q6. Answer: (b) (36, 99, 198)

The logic followed here is:
Logic: (1st number + Reverse of 1st number) = 2nd number,
2nd number + Reverse of 2nd number = 3rd number.
Now,
For, (56, 121, 242)
→ 56 + 65 = 121.
→ 121 + 121 = 242.
For, (78, 165, 726)
→ 78 + 87 = 165.
→ 165 + 561 = 726.
Similarly, for (36, 99, 198)
→ 36 + 63 = 99.
→ 99 + 99 = 198.
Hence, the correct answer is "Option 2".

Q7. Answer: (b) Daughter in law

Family Chart:
Given: M is the father of L. R is the father of M. Q is the husband of S. L is the brother of Q.
So, S is Daughter in law of M.
Hence, the correct answer is "Option 2".

Q8. Answer: (b) Dig

The logic followed here is:
Logic: The first word is a tool, and the second word is the purpose associated with that tool.
Pen : Write → A pen is a tool used to write.
Similarly,
Spade : Dig → A spade is a tool used to dig.
Hence, the correct answer is "Option 2".

Q9. Answer: (b) 3578

The logic followed here is:
Logic: Numbers arranged in Ascending order.

YourMockTest.com — Free Study Material

For, 5432 : 2345

Number	5	4	3	2
Ascending Order	2	3	4	5

For, 6192 : 1269

Number	6	1	9	2
Ascending Order	1	2	6	9

Similarly, for 7835 : ?

Number	7	8	3	5
Ascending Order	3	5	7	8

Hence, the correct answer is "Option 2".

Q10. Answer: (a) [figure]

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

Hence, "Option 1" 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.

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.

Q11. Answer: (b) [figure]

The image that resemble are:

So, Option 2 will resemble in the given paper.

Hence, the correct answer is "Option 2".

Q12. Answer: (d) Japan

The logic followed here is:

Logic: The first word is the currency of the country represented by the second word.

Yuan : China → Yuan is the currency of China.

Similarly,

Yen : Japan → Yen is the currency of Japan.

Hence, the correct answer is "Option 4".

Q13. Answer: (a) (32, 16, 64)

The logic followed here is:

Logic: 1st number + (2nd number × 2) = 3rd number.

Now,

For, (18, 9, 36)

=> 18 + (9 × 2)

=> 18 + 18 = 36.

For, (36, 18, 72)

=> 36 + (18 × 2)

=> 36 + 36 = 72.

Similarly for, (32, 16, 64)

=> 32 + (16 × 2)

=> 32 + 32 = 64.

Hence, the correct answer is "Option 1".

Q14. Answer: (d) 50

The logic followed here is:

Here, '50' will complete the given series.

YourMockTest.com — Free Study Material

Hence, the correct answer is "50".

Q15. Answer: (d) 3

From the given dice,

3 is the common number in the both dice,

And, 1, 2, 5, and 6 is the adjacent surface of 3,

So, the remaining number 4 will be the opposite surface of 3.

Hence, the correct answer is "Option 4".

Q16. Answer: (a) PRV

The logic followed here is:

Option 1) PRV

Option 2) OQT

Option 3) ACF

Option 4) XZC

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

Hence, the correct answer is "Option 1".

Q17. Answer: (b) Convex

The correct order according to the English dictionary is:

3. Convect

4. Convent

1. Convert

2. Convex

5. Convict

From the arrangement, we can see that word 'Convex' comes at the Fourth position.

Hence, the correct answer is "Option 2".

Q18. Answer: (c) [figure]

The paper when unfolded will appear as shown below:

Hence, 'option 3' is the correct answer.

Q19. Answer: (d) 48

The logic followed here is:

Logic: Consider A as '-'.

Now,

For, 27 A 11 A 8 = 8

=> 27 - 11 - 8 = 8.

For, 48 A 37 A 2 = 9

=> 48 - 37 - 2 = 9.

Similarly, for 56 A 5 A 3 = ?

=> 56 - 5 - 3 = 48.

Hence, the correct answer is "48".

Q20. Answer: (c) Only conclusion III follows

Statements:

I. All cherry are pink.

II. Some blue are pink.

The least possible Venn diagram for the given statement is:

Conclusion:

I. Some blue are not cherry - False (No definite negative conclusions will be true in a positive statement).

II. All pink are cherry - False (Some pink are cherry is definitely true, but All pink are cherry can be possible only).

III. Some pink are cherry - True (All Cherry are Pink so some pink is cherry is definitely true).

So, Only conclusion III follows.

YourMockTest.com — Free Study Material

Hence, the correct answer is "Option 3".

Q21. Answer: (b) Cow

The logic followed here is:

Logic: The first word is the male of a specific animal species, and the second word is the female of the same species.

Dog : Bitch → A dog is a male canine, and a bitch is a female canine.

Similarly,

Bull : Cow → A bull is a male bovine, and a cow is a female bovine.

Hence, the correct answer is "Option 2".

Q22. Answer: (d) (82, 164, 328)

The logic followed here is:

Logic: 1st number × 2 = 2nd number,

2nd number × 2 = 3rd number.

Now,

For, (59, 118, 236)

=> 59 × 2 = 118,

=> 118 × 2 = 236.

For, (64, 128, 256)

=> 64 × 2 = 128,

=> 128 × 2 = 256.

Now checking the options,

Option 1) (37, 74, 138)

=> 37 × 2 = 74,

=> 74 × 2 = 148 ≠ 138.

Option 2) (63, 126, 242)

=> 63 × 2 = 126,

=> 126 × 2 = 252 ≠ 242.

Option 3) (44, 88, 186)

=> 44 × 2 = 88,

=> 88 × 2 = 176 ≠ 186.

Option 4) (82, 164, 328)

=> 82 × 2 = 164,

=> 164 × 2 = 328.

Hence, the correct answer is "Option 4".

Q23. Answer: (a) [figure]

The logic followed here is:

Step I: 1 sides reduce from each images.

Step II: The arrow rotates 90 degree to the anticlockwise direction and shifted one place at the left.

Step III: The Shaded part of the circle is moved in clockwise direction and shifted +1 place at the next images.

So, the complete series will be:

Hence, the correct answer is "Option 1".

Q24. Answer: (c) (Factory, Garage, Casino)

The logic followed here is:

Option 1) (Sailor, Doctor, Painter) → These all are professions or occupations.

Option 2) (Engineer, Servant, Grocer) → These all are professions or occupations.

Option 3) (Factory, Garage, Casino) → These all are places where certain activities take place. A factory is a place where goods are manufactured, a garage is a place where cars are repaired or serviced, and a casino is a place where gambling takes place.

Option 4) (Mechanic, Astronomer, Warrior) → These all are professions or occupations.

Hence, the correct answer is "Option 3".

YourMockTest.com — Free Study Material

Q25. Answer: (c) 15

According to the given Venn diagram:

The shaded area shows the "total number of buses".

So, the total number of buses are = 6 + 4 + 2 + 3 = 15,

Hence, the correct answer is "15".

Q26. Answer: (d) Second five-year plan

The correct answer is Second five-year plan

Key Points:Second Five-Year Plan:

• The focus of the second five-year plan was heavy industries.

• Rapid industrialization was used to set a goal of a 25% rise in national income.

• The Mahalanobis model is used in the second five-year plan. PC Mahalanobis, the founder of the Indian Statistical Institute and a close aide of Nehru, Indianized the USSR model.

• Through an elaborate input-output model, this approach is known to have provided the statistical foundations for state-directed investments and created the intellectual underpinnings of the licensing raj.

• This concept was used to establish India's second five-year plan and the Industrial Policy Resolution of 1956, which cleared the way for the rise of the public sector and the license raj.

• The growth target was 4.50% but achieved 4.27%.

Achievements of Second Five-Year Plan:

• In the second five-year plan, steel mills were built in Bhilai, Durgapur, and Rourkela.

• This plan included increased coal production and the addition of extra railway lines.

• Homi J. Bhabha was the first head of the Atomic Energy Commission, which was established in 1948.

• As a research institute, the Tata Institute of Fundamental Research was founded.

• A talent search and scholarship program was started in 1957 to locate exceptional young students who could be trained for the nuclear power industry.

• PC Mahalanobis

Q27. Answer: (b) 10 Degree Channel

The correct answer is the 10° channel.

Key Points:

• The Ten Degree Channel, which is about 90 miles (145 kilometers) wide, separates Andaman and Nicobar Islands in the south.

• The union territory of India's Andaman and Nicobar Islands is made up of two groups of islands off the coast of the Bay of Bengal.

• Between Myanmar (Burma) and the Indonesian island of Sumatra, the peaks of a submerged mountain range, the Andaman Islands, and their southern neighbors, the Nicobar Islands, form an arc extending 620 miles (1,000 km) southward.

• The arc marks the western border of the Bay of Bengal and the eastern border of the Andaman Sea.

• Port Blair is the territorial capital (on South Andaman Island).

• The islands are home to the Andaman and Nicobar Command, the Indian Armed Forces' only tri-service geographical command.

• According to the 2011 Indian Census, the Union Territory of Andaman and Nicobar Islands had a population of 379,944, with 202,330 men (53.25 percent) and 177,614 women (46.75 percent).

• There were 878 females for every 1,000 males. The Nicobar Islands are home to just 10% of the population.

Q28. Answer: (c) Rustom

The correct answer is Rustom

Key Points:

• Akshay Kumar won the best actor award for his film Rustom, while the best actress award was won by Surabhi Lakshmi for her Malayalam film Minnaminungu.

• The National Film Awards is an award ceremony conducted every year during which the Directorate of Film Festivals honours the best films of Indian cinema for that year.

• The 64th National Film Awards was held on May 3, 2017.

Important Points

• The National Film Awards is the most prominent film award ceremony in India.

• National Film Awards established in 1954, it has been administered, along with the International Film Festival of India and the Indian Panorama, by the Indian government's Directorate of Film Festivals since 1973.

YourMockTest.com — Free Study Material

• The National Film Awards are presented in two main categories:
• Feature Films and Non-Feature Films.
• The Awards are categorized into three sections:
• Feature Films, Non-Feature Films, and Best Writing on Cinema.

Q29. Answer: (a) Shivpal Singh

The correct answer is Shivpal Singh.

Key Points:

• Indian javelin thrower Shivpal Singh has been suspended from competing till October 2025 due to a doping violation.
• He tested positive for the banned substance methandienone, a performance-enhancing steroid.
• Uttar Pradesh-based, Shivpal was a silver-medallist at the 2019 Asian Championships.
• Earlier, Discus thrower Navjeet Kaur Dhillon was also banned due to doping violations.

Additional Information:The World Anti-Doping Agency (WADA):

• The World Anti-Doping Agency (WADA) is an international independent agency.
• WADA was established in 1999.
• It is headquartered in Montreal, Canada.
• President: Witold Bańka
• It was set up as a foundation under the initiative of the International Olympic Committee (IOC) with the support and participation of intergovernmental organizations, governments, public authorities, and other public and private bodies fighting doping in sports.
• WADA is responsible for the World Anti-Doping Code, adopted by more than 650 sports organizations.
• It aims to lead a collaborative worldwide movement for doping-free sport.

Q30. Answer: (a) Odisha

Correct Answer Odisha

Key Points:Lingaraja Temple-

• It was built in the 11th century AD by King Jajati Keshari of the Somavanshi dynasty.
• It is built in red stone.

The Lingaraj Temple is built in the Deula style that has four components-

• vimana (structure containing the sanctum)
• jagamohana (assembly hall)
• natamandira (festival hall)
• bhoga-mandapa (hall of offerings)

Kalinga school of temple architecture-

• It is a sub-style of Nagara architecture, which flourished in the ancient Kalinga region.
• The style consists of three distinct types of temples: Rekha Deula, Pidha Deula, and Khakhara Deula.
• Examples of Kalinga architecture: Rajarani temple (Bhubaneshwar); Jagganath Temple, Puri.

Q31. Answer: (d) Only I and III

The correct answer is Only I and III

Key Points:

• Force acting on a unit area is called pressure.
• The pressure increases with increasing depth.
• This is due to the water up above weighing down on the water below.
• Liquid pressure increases as depth increases.
• The pressure is greater on the lower surfaces of the body than on the upper surfaces as the pressure in a fluid increases with depth.
• Pressure and depth are directly proportional to each other.

Additional Information:

• The pressure at sea level is taken as the standard atmospheric pressure.
• As the height increases from sea level, the atmospheric pressure decreases.
• At high altitudes where atmospheric pressure is less, it bleeds from the nose due to high blood pressure.
• SI unit of pressure is the Pascal.

YourMockTest.com — Free Study Material

Q32. Answer: (a) Karnataka

The correct answer is Karnataka.

Key Points

• The Mahanadi basin extends over the states of Chhattisgarh and Odisha and smaller portions of Jharkhand, Maharashtra and Madhya Pradesh.

• It drains an area of 1,41,589 Sq.km which is nearly 4.3% of the total geographical area of the country.

• The geographical extent of the basin lies between 80°28' and 86°43' east longitudes and 19°8' and 23°32' north latitudes.

• The basin has a maximum length and width of 587 km and 400 km.

• It is bounded by the Central India hills on the north, by the Eastern Ghats on the south and east and by the Maikala range on the west.

Additional Information:

• The Mahanadi is one of the major rivers of the country and among the peninsular rivers.

• It originates from a pool, 6 km from the Farsiya village of the Dhamtari district of Chhattisgarh.

• The total length of the river from origin to its outfall into the Bay of Bengal is 851 km.

• The major part of the basin is covered with agricultural land accounting to 54.27% of the total area and 4.45% of the basin is covered by water bodies.

• The basin spreads over 27 parliamentary constituencies comprising 13 of Odisha, 11 of Chhattisgarh, and 1 each of Maharashtra, Jharkhand and Madhya Pradesh.

Q33. Answer: (b) President Draupadi Murmu

The correct answer is President Draupadi Murmu

Key Points:

• President Droupadi Murmu on 4th Oct 2022 launched 'herSTART', a startup platform for women entrepreneurs created by Gujarat University in Ahmedabad.

• This initiative will link women entrepreneurs with various private and govt platforms.

• The President also inaugurated 5 high schools for tribals & 5 infrastructure projects of the education dept.

• This is the President's first visit to Gujarat.

Additional Information:

• Gujarat is a state along the western coast of India.

• Its coastline of about 1,600 km is the longest in the country, most of which lies on the Kathiawar peninsula.

• Gujarat is the fifth-largest Indian state by area and the ninth-most populous state.

• Gujarat:

• Capital: Gandhinagar

• Governor: Acharya Devvrat

• Chief Minister: Bhupendrabhai Patel

• Population: 6.27 crores (2013)

Q34. Answer: (c) Sam Manekshaw

The Correct Answer is Sam Manekshaw.

Key Points

• Sam Manekshaw is the first Indian Army officer to be promoted to the five-star rank of field marshal.

• He was conferred with the rank of field marshal on 1 January 1973.

Mistake Points

• The government of India conferred the rank of field marshal on K M Cariappa on 28 April 1986.

• He was the first Indian Commander-in-Chief (C-in-C) of the Indian Army(Army Chief).

Additional Information

• During the Indo-Pakistani War of 1971, Field Marshal Sam Manekshaw was the Indian Army Commander-in-Chief.

• The Padma Vibhushan and Padma Bhushan, India's second and third highest civilian honors, were given to him.

Q35. Answer: (a) Secular

The correct answerSecular

Key Points:The 42nd Amendment Act:

• It was enacted by Indian National Congress headed by Indira Gandhi.

• Words 'Socialist', 'Secular' and 'Integrity' were added in Preamble.

• The 42nd Amendment Act is also known as the 'Mini-Constitution'.
• 10 Fundamental Duties added for the citizens after the 42nd Amendment Act.
• It also made President bound to the advice of the cabinet.

Important Points:

• Four new DPSPs were added:
• To secure opportunities for the healthy development of children under Article 39.
• To promote equal justice and to provide free legal aid to the poor under Article 39 A.
• To take steps to secure the participation of workers in the management of industries under Article 43 A.
• To protect and improve the environment and to safeguard forests and wildlife under Article 48 A.
• Thus, the 42nd Amendment is also called Mini Constitution.

Additional Information

• Soul of the constitution:
• Dr Ambedkar has called the right to constitutional remedies mentioned in Article-32 the soul of the Constitution.
• It gives a citizen the right to approach the Supreme Court to get resorted any of the fundamental rights in case of their violation.
• It is also known as; Right to Constitutional Remedies.
• Magna Carta:
• Part III containing Fundamental Rights (Article 12 to 35) is described as the Magna Carta of India.
• Magna Carta is the Charter of rights issued by King John of England.
• It is the first written document on the Fundamental Rights of the citizens.

Q36. Answer: (b) 1

Correct Answer 1

Key Points:

1. Neeraj Chopra, a javelin thrower, became only the second Indian to win an Olympic gold medal.
2. At the 2020 Tokyo Olympics, he earned a gold medal in the Javelin Throw event.
3. He became India's seventh medalist and first gold medalist in the Olympics, joining shooter Abhinav Bindra (2008 Beijing Games) as an individual gold medalist.
4. India won 1 Gold, 2 Silver, and 4 Bronze medals.

Additional Information:

• This is the only time when the Olympics were postponed.
• In Tokyo Olympics 2020, India finished 48th in the medal tally, which is the highest position in over four decades.

Q37. Answer: (a) Maharashtra

Correct Answer Maharashtra

Key Points

• The Ministry of Commerce and Industry has published the Logistics Ease Across Different States (LEADS) Report for 2022.
• LEADS is a domestically developed index that employs data-driven analysis to evaluate logistics infrastructure, services, and human resources across all 36 States and Union Territories (UTs) of India.
• Serving as a valuable tool, LEADS assists in identifying measures to improve logistics efficiency at the state and UT level.
• Furthermore, the report has received international recognition, as it positively correlates with indices such as the Logistics Performance Index.
• Initially launched in 2018, the LEADS report has been published annually.

Additional InformationThe LEADS Report 2022 categorizes states and union territories into three performance categories based on their percentage scores:

Achievers:

• This category includes states/UTs that have achieved a percentage score of 90% or higher.
• The following states/UTs fall under the Achievers category: Andhra Pradesh, Assam, Chandigarh, Delhi, Haryana, Himachal Pradesh, Karnataka, Maharashtra, Odisha, Punjab, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand, and Gujarat.
• Among these, Maharashtra holds the top position among the Achievers states.

Fast Movers:

• This category comprises states/UTs that have achieved percentage scores ranging from 80% to 90%.
• The Fast Movers category includes Kerala, Madhya Pradesh, Rajasthan, Puducherry, Sikkim, and Tripura.

Aspirers:

• States/UTs that have achieved percentage scores below 80% are classified under the Aspirers category.

• However, specific states falling under this category have not been mentioned in the provided information.

These performance categories provide a comprehensive assessment of the logistics infrastructure and services across different states and UTs, highlighting the achievements and areas for improvement in the logistics sector.

Q38. Answer: (c) India

The correct answer is India.

Key Points:

• The ICC Men's Cricket World Cup 2023 will be the 13th edition of the tournament, and it was held in India in October and November 2023.

• The competition will be held fully in India for the first time.

• Three earlier events – 1987, 1996, and 2011 – were partially hosted there.

• The tournament was originally slated to take place from February 9 through March 26, 2023.

• Namibia, along with Zimbabwe and South Africa, will host the Men's Cricket World Cup for the first time in October/November 2027. The event was last held in 2003 in South Africa and Zimbabwe.

Additional Information:

• The Cricket World Cup is a one-day international (ODI) cricket tournament held every four years.

• The International Cricket Council (ICC), the sport's governing body, hosts the event every four years, with preliminary qualification stages leading up to a finals competition.

• First edition: 1975 - Held in England

• Latest edition: 2019 - Held in England & Wales

• Current champion - Australia(5 titles)

• Most successful - Australia (5 titles)

• Most runs - (India) Sachin Tendulkar (2,278).

• Most wickets - (Australia) Glenn McGrath (71).

Q39. Answer: (d) United States of America

The correct answer is the United States of America.

Key Points

• The ideals embodied in the Objectives Resolution are faithfully reflected in the Preamble to the Constitution.

• It summarises the aims and objects of the Constitution.

• It is a borrowed feature from the Constitution of the USA.

• The Preamble to the Indian Constitution is based on the Objectives Resolution drafted and moved by Pandit Nehru and adopted by the Constituent Assembly.

• It is not enforceable in a court of law.

• The Preamble has been amended only once so far, in 1976, by the 42nd Constitutional Amendment Act.

• It added three new words Socialist, Secular, and Integrity.

Important keywords in the Preamble of India

• Sovereign

• Socialist

• Secular

• Democratic

• Republic

• Justice

• Liberty

• Equality

• Fraternity

Additional InformationThe other borrowed provisions from different countries and details of those are given in below:

Countries	Borrowed Provisions
Australia	• Concurrent list - Freedom of trade, commerce - Joint-sitting of the two Houses of Parliament

Canada	• Federation with a strong Centre - Vesting of residuary powers in the Centre - Appointment of state governors by the Centre - Advisory jurisdiction of the Supreme Court
Ireland	• Directive Principles of State Policy - The nomination of members to the Rajya Sabha - Method of election of the President
Japan	• Procedure Established by law
Russia	• Fundamental duties - Ideals of justice (social, economic, and political) in the Preamble
United Kingdom	• Parliamentary government - Rule of Law - Legislative procedure - Single Citizenship - Cabinet system - Prerogative writs - Parliamentary privileges - Bicameralism
The United States of America	• Fundamental rights - Independence of judiciary - Judicial review - Impeachment of the president - Removal of Supreme Court and High Court judges - Post of vice-president
Germany	• Suspension of Fundamental Rights during emergency
South Africa	• Procedure for amendment in the Indian Constitution - Election of members of Rajya Sabha
France	• Republic - Ideals of liberty, equality, and fraternity in the Preamble

Q40. Answer: (b) Madhya Pradesh

The correct answer is Madhya Pradesh.

Key Points:

• Manganese is a mineral that naturally occurs in a silvery grey color and is exceedingly hard and brittle.

• It is constantly combined with minerals like laterite, iron, and others.

• Steel production requires manganese in the form of an alloy, and steel production is one of the most significant markers of growth in any nation's industrial sector.

• India's top manganese producer in Madhya Pradesh.

• India is currently one of the main countries importing manganese ore.

Additional Information:

• Other states in India that produce manganese include Madhya Pradesh, Maharashtra, Odisha, Karnataka, and Andhra Pradesh.

• Madhya Pradesh produced almost 33% of all the manganese produced in India in 2019–20.

• Maharashtra produced almost 25% of all the manganese produced in India in 2019–20.

• Around 18% of India's total manganese production in 2019–20 was produced in Odisha.

• Karnataka and Andhra Pradesh made about 11% each of the nation's manganese production in 2019–20.

Q41. Answer: (a) NOSTRO

The correct answer is Option 1.

Key Points

• A NOSTRO account is a foreign bank account that an Indian bank maintains in a foreign currency in a foreign country.

• The term "NOSTRO" comes from the Latin phrase "Nostro Recipiente," which means "our account with you".

• "The purpose of maintaining a NOSTRO account is to facilitate foreign transactions.

• For example, if an Indian company wants to import goods from a foreign country, it can use its NOSTRO account to pay the foreign supplier in the supplier's local currency.

• Similarly, if an Indian company has received payment for its exports in a foreign currency, it can receive the payment in its NOSTRO account.

• Overall, NOSTRO accounts are used by banks to facilitate international trade and commerce by providing a mechanism for settling cross-border transactions in the currency of the foreign country.

Additional Information

• VOSTRO -

• A VOSTRO account is the opposite of a NOSTRO account.

• While a NOSTRO account is a foreign bank account that an Indian bank maintains in a foreign country, a VOSTRO account is an

YourMockTest.com — Free Study Material

Indian bank account that a foreign bank maintains in India.

• The term "VOSTRO" comes from the Latin phrase "Vostro Recipiente," which means "your account with us."Foreign banks maintain VOSTRO accounts in India to facilitate their operations in the country.

• For example, a foreign bank may maintain a VOSTRO account with an Indian bank to receive and make payments in Indian Rupees on behalf of its clients who are conducting business in India.

• Overall, VOSTRO accounts are used by foreign banks to facilitate their operations in India, allowing them to receive and make payments in Indian Rupees and providing a mechanism for settling transactions in the local currency.

• LIBOR -

• LIBOR stands for the London Interbank Offered Rate. It is the benchmark interest rate that is used as a reference for various financial instruments such as loans, derivatives, and bonds in the international financial markets.

• LIBOR is calculated based on the average interest rates that a panel of banks in London offer each other for short-term loans in different currencies and different maturities.

• The rate is published daily by the ICE Benchmark Administration, and it is used as a reference rate for trillions of dollars worth of financial contracts worldwide.

• However, the use of LIBOR has been under scrutiny since the 2008 financial crisis, when some banks were found to have manipulated the rate for their own benefit.

• As a result, in 2017, the UK Financial Conduct Authority announced that it would phase out LIBOR by the end of 2021, and encourage market participants to transition to alternative reference rates. In summary, LIBOR is a widely used benchmark interest rate that is being phased out due to concerns about its reliability and potential for manipulation.

• MIBOR -

• MIBOR stands for the Mumbai Interbank Offered Rate. It is the benchmark interest rate that is used in the Indian financial markets as a reference for various financial instruments such as loans, derivatives, and bonds.

• MIBOR is calculated based on the average interest rates that a panel of banks in Mumbai offer each other for short-term loans in the Indian money market.

• The rate is published by the National Stock Exchange of India and is used as a reference rate for financial contracts in the Indian market.

• MIBOR is calculated for different maturities ranging from overnight to one year, and it is used as a benchmark for determining the interest rates on various financial products such as loans, floating-rate bonds, and interest rate swaps.

• It is an important benchmark for the Indian financial markets and is closely watched by market participants and regulators.

• In summary, MIBOR is the benchmark interest rate for the Indian financial markets that is used as a reference for various financial products and is calculated based on the average interest rates offered by a panel of banks in Mumbai.

Q42. Answer: (d) Hepatitis

The correct answer is Option 4.

Key Points

• Hepatitis is a viral infection that affects the liver and can cause inflammation and damage to the liver.

• There are different types of hepatitis viruses, such as hepatitis A, B, C, D, and E, and each is transmitted in different ways.

• Hepatitis A and E are usually transmitted through contaminated food or water, and they do not cause chronic liver disease.

• Hepatitis B, C, and D are transmitted through infected blood or body fluids, and they can cause chronic liver disease and lead to liver failure or liver cancer.

• Mosquitoes, on the other hand, are known to transmit various diseases such as malaria, dengue fever, Zika virus, and yellow fever, but they do not transmit hepatitis viruses.

Additional Information

• Elephantiasis is a parasitic infection that is transmitted by mosquitoes and causes chronic swelling and enlargement of body parts due to damage to the lymphatic system.

• It can be prevented through measures such as mosquito control and proper treatment of infected individuals.

• Dengue is a viral infection that is transmitted to humans by infected mosquitoes, primarily the Aedes aegypti mosquito.

• It is a common mosquito-borne disease that is prevalent in tropical and subtropical regions of the world.

• Malaria is a serious and sometimes fatal disease caused by a parasite called Plasmodium, which is transmitted to humans through the bites of infected female Anopheles mosquitoes.

• Malaria is most prevalent in tropical and subtropical regions of the world, including many countries in Africa, Asia, and the Americas.

Q43. Answer: (a) Lord Dalhousie

The correct answer is Option 1.

Key Points

• The Doctrine of Lapse was a policy introduced by Lord Dalhousie, who was the Governor-General of India from 1848 to 1856, during the period of British colonial rule in India.

• The doctrine stated that if an Indian ruler, such as a prince or a king, died without a natural heir, his territory would "lapse" or be annexed by the British East India Company.

• The doctrine was intended to expand British control over Indian states and territories and was one of the factors that contributed to the Indian Rebellion of 1857.

Additional Information

• Lord Hastings -

• Lord Hastings also known as Warren Hastings, was a British colonial administrator who served as the first Governor-General of India from 1773 to 1785.

• He was appointed to the position by the British East India Company, which had established a significant presence in India during the 18th century.

• As Governor-General, Hastings oversaw a number of significant changes and reforms in India, including the creation of a uniform legal system and the establishment of the Bengal Native Infantry, which was composed of Indian soldiers trained and commanded by the British.

• He also sought to expand British control over Indian territories, including the annexation of the state of Oudh and the defeat of the Maratha Empire.

• Lord Cornwallis -

• Lord Cornwallis (1738-1805) was a British army officer and statesman who played a significant role in the American Revolution and the British Empire's expansion in India.

• During the American Revolution, Cornwallis served as a general in the British army and commanded British forces in several important battles, including the Battle of Bunker Hill, the Battle of Camden, and the Battle of Guilford Court House.

• He is perhaps best known for his surrender at the Battle of Yorktown in 1781, which effectively ended British military operations in North America and led to the eventual recognition of American independence.

• Following his service in America, Cornwallis went on to serve as the Governor-General of India from 1786 to 1793.

• During his time in India, he implemented a number of reforms aimed at improving the administration and governance of the country.

• He is also credited with laying the foundation for the British East India Company's expansion in India.

• Lord Minto -

• Lord Minto was the title held by several members of a Scottish noble family who served as Governor-General of India during the British colonial era.

• The most prominent of these was Gilbert Elliot-Murray-Kynynmound, who served as Governor-General from 1807 to 1813.

• During his tenure as Governor-General, Lord Minto oversaw several significant events in Indian history, including the Anglo-Maratha War, the Second Anglo-Mysore War, and the establishment of British control over the Sikh Empire.

• He also played a key role in negotiating treaties with Nepal and Persia, which helped to secure British interests in the region.

Q44. Answer: (d) Bar code reader

The correct answer is Option 4.

Key Points

• A barcode reader is not an output device.

• It is actually an input device, which is used to read and interpret data from barcode labels and transmit that data to a computer or other device.

• Barcode readers use optical scanning technology to read the pattern of bars and spaces on a barcode label, which represents a specific code or series of numbers and characters.

• This information is then sent to a computer or other device for processing and interpretation.

• Output devices, on the other hand, are devices that are used to display or transmit information or data from a computer or other device.

• Examples of output devices include computer monitors, printers, speakers, and projectors.

Additional Information

• A plotter is a type of output device that is used to print large-scale graphics, designs, and technical drawings.

• Unlike traditional printers, which use ink or toner to create images on paper, plotters use a pen or other marking instrument to draw precise lines and shapes on paper, vinyl, or other materials.

• A monitor is an output device that displays visual information from a computer or other electronic device. Also referred to as a computer screen or display screen, a monitor is one of the most important components of a computer system.

• A dot matrix printer is a type of impact printer that uses a matrix of small pins to strike an inked ribbon and create an image or

text on paper.

• The pins are arranged in a grid, and when the printer head moves across the page, the pins strike the ribbon and transfer ink onto the paper, creating a series of dots that form characters and images.

Q45. Answer: (d) Radiation

The correct answer is Option 4.

Key Points

• Radiation is the method of heat transfer in which no medium is required.

• In radiation, heat is transferred through electromagnetic waves, which can travel through a vacuum or empty space.

• This means that radiation can occur between two objects that are not in contact with each other, and even between objects that are separated by a vacuum, such as the heat from the sun reaching the Earth.

• In contrast, the other two methods of heat transfer, conduction and convection, require a medium, such as a solid, liquid, or gas, to transfer heat.

• Conduction is the transfer of heat through a material or from one object to another in contact with it.

• Convection is the transfer of heat through the movement of fluids, such as liquids or gases.

Q46. Answer: (b) 1878

The correct answer is Option 2.

Key Points

• The Arms Act that regulates the possession, manufacture, sale, and transfer of firearms in India has been amended several times since its inception in 1878.

• The act underwent significant amendments in 1959 and 1983, but there is no specific amendment that disallowed Indians from possessing arms.

• However, in 1962, the Indian government passed the Defence of India Rules, which prohibited the possession of arms and ammunition by any person without a valid license.

• The Arms Act was enacted in 1878, the Act restricted gun ownership for Indians during Indo-China War of 1962.

• In 1983, the Arms Act was amended to further regulate the possession of firearms and ammunition in the country. The amendment tightened the licensing requirements and imposed stricter penalties for violations of the law.

Q47. Answer: (d) Taiga

The correct answer is Option 4.

Key Points

• The Coniferous forests found in the higher latitudes (50° - 70°) of Northern Hemisphere are also called Boreal forests or Taiga.

• They are characterized by a cold and harsh climate, with long, cold winters and short, cool summers.

• The dominant tree species in these forests are conifers such as spruce, pine, and fir, which are adapted to the harsh climate and poor soil conditions.

• The Boreal forest is an important ecosystem, providing habitat for a wide range of wildlife and playing a crucial role in global carbon cycling.

Additional Information

• Veld -

• Veld is a term used to describe open grassland areas found in Southern Africa, especially in South Africa, Botswana, Zimbabwe, and Namibia.

• These regions are characterized by a semi-arid to arid climate with dry, hot summers and cool, dry winters.

• The vegetation in the veld varies from grassland to savanna with scattered trees and shrubs.

• The grasses in the veld are adapted to withstand drought and fire, and are often grazed by large herbivores such as antelopes and zebras.

• The veld is an important ecosystem for biodiversity, supporting a wide range of animal and plant species, including many endemic and threatened species.

• It is also used for livestock grazing and agriculture, making it an important economic resource for the region.

• Tundra -

• Tundra is a type of biome characterized by its low temperatures, short growing season, and lack of trees.

• It is found in the Arctic and Alpine regions, where the ground is frozen for much of the year (permafrost) and the climate is harsh and cold.

• The tundra is covered in low-lying vegetation, including mosses, lichens, grasses, and small shrubs, and is home to a variety of animal species such as caribou, musk oxen, Arctic foxes, and polar bears.

YourMockTest.com — FREE Study Material

• Due to its extreme environment, the tundra is a fragile ecosystem that is particularly vulnerable to human activities such as oil and gas exploration, mining, and climate change.

• It is also an important carbon sink, helping to regulate the Earth's climate by storing large amounts of carbon in its frozen soil.

• The Llanos -

• The Llanos, also known as Los Llanos, is a vast tropical grassland plain located in South America, primarily in Venezuela and Colombia.

• The region is characterized by its flat terrain, with grassy plains that are often flooded during the rainy season and dry and dusty during the dry season.

• The Llanos is home to a diverse array of wildlife, including capybaras, anacondas, jaguars, giant anteaters, and many species of birds.

• The grasslands also support large numbers of domesticated animals, such as cattle and horses, and are an important agricultural region for both countries.

• The Llanos is also a popular destination for ecotourism, with visitors coming to observe wildlife and experience the traditional cowboy culture of the region.

Q48. Answer: (c) Ctrl + S

The correct answer is Option 3.

Key Points

• To save a file in MS-Word 365, you can use the "Ctrl + S" shortcut key on Windows or "Command + S" on Mac.

• This will bring up the Save As dialog box, where you can choose a location to save the file and enter a file name.

• You can also use the "Ctrl + Shift + S" shortcut key on Windows or "Command + Shift + S" on Mac to quickly save the file with the current file name and location.

Additional Information

• MS-Word 365 is the latest version of Microsoft Word, which is a word processing software used for creating, editing, formatting, and sharing text-based documents.

• It is part of the Microsoft Office 365 suite of productivity applications and is available on Windows and Mac computers, as well as mobile devices such as smartphones and tablets.

• MS-Word 365 offers a wide range of features and tools for creating professional-looking documents, including templates, styles, formatting options, and collaboration tools.

• It also includes support for cloud storage services such as OneDrive and SharePoint, allowing users to access and edit their documents from anywhere with an internet connection.

• Additionally, MS-Word 365 includes intelligent features such as the Editor, which provides advanced grammar and spelling suggestions, and the Design Ideas feature, which suggests visual enhancements for your documents.

Q49. Answer: (b) INS Vikrant

The correct answer is Option 2.

Key Points

• On September 2, 2022, Prime Minister Shri Narendra Modi commissioned the country's first indigenous aircraft carrier, Indian Naval Ship (INS) Vikrant, at Cochin Shipyard Limited (CSL) and unveiled the new Naval Ensign (Nishaan).

• The Prime Minister described INS Vikrant as a testament to India's hard work, talent, influence, and commitment in the 21st century, and a reflection of India becoming self-reliant.

• He acknowledged and praised the contribution of the Navy, engineers of Cochin Shipyard, scientists, and workers who worked on the project.

• INS Vikrant is a symbol of indigenous potential, resources, and skills.

Additional Information

• The Prime Minister also talked about the Indian Maritime tradition and naval capabilities, and noted that the new Navy flag, inspired by Chhatrapati Shivaji, will fly in the sea and in the sky.

• He praised the role of women soldiers in the Navy and announced that all branches of the Navy will be open to women.

• He emphasized the need for every citizen to live the mantra of 'Vocal for Local' to make the country self-reliant.

Q50. Answer: (b) Jharkhand

The correct answer is Option 2.

Key Points

• Dhuska is a very popular food item in the state of Jharkhand, located in eastern India.

• It is a deep-fried snack made from rice flour and chana dal (split Bengal gram), which is typically served with spicy potato curry or chutney.

• Jharkhand is a state located in eastern India, which was formed on November 15, 2000, after the reorganization of Bihar state.

• The state shares its borders with Bihar to the north, Uttar Pradesh to the northwest, Chhattisgarh to the west, Odisha to the south, and West Bengal to the east.

Additional Information

• Punjab is a state located in northern India.

• The name "Punjab" literally means "land of five rivers," as the region is watered by the five rivers of the Indus basin: the Sutlej, Beas, Ravi, Chenab, and Jhelum.

• The state is known for its rich cultural heritage, vibrant festivals, and delicious cuisine.

• Kerala is a state located in the southwestern region of India, known for its palm-lined beaches, backwaters, and network of canals.

• The state is often referred to as "God's Own Country" due to its natural beauty and cultural diversity.

• The capital city of Kerala is Thiruvananthapuram, and the state has a population of approximately 35 million people, according to the 2011 census.

• Kerala is known for its high literacy rate, excellent healthcare system, and progressive social policies.

• Andhra Pradesh is a state located in the southeastern region of India, bordered by Telangana to the north, Odisha to the northeast, Tamil Nadu to the south, and Karnataka to the west.

• The state has a rich cultural heritage, with influences from ancient Hindu and Buddhist kingdoms, as well as Islamic and British colonial rulers.

• The capital city of Andhra Pradesh is Amravati.

• The state has a population of approximately 50 million people, according to the 2011 census.

• Andhra Pradesh is known for its diverse landscape, which includes a long coastline along the Bay of Bengal, as well as hills, forests, and fertile river valleys.

Q51. Answer: (b) 10

Calculation:

To find A1, we need to calculate the total production of bikes and trucks by all the five companies:

Total production of bikes = 700 + 450 + 500 + 250 + 300 = 2200

Total production of trucks = 500 + 300 + 200 + 600 + 650 = 2250

Therefore, A1 = |2200 - 2250| = 50

To find A2, we need to calculate the average production of bike by companies D, F, and H:

Average production of bike = (700 + 500 + 300) / 3 = 500

Therefore, A2 = 500

So, (A2/A1) = 500/50 = 10

Hence, the value of (A2/A1) is 10.

Therefore Option 2 is the correct answer.

Q52. Answer: (c) 10/√389

Given:

tan x = 10/17

Concept used:

tan x = P/B, where P is perpendicular and B is base.

sin x = P/H, where P is perpendicular and H is the hypotenuse

H2 = P2 + B2

Calculation:

tan x = 10/17

P = 10 and B = 17

Using H2 = P2 + B2

H2 = 102 + 172

H = √389

sin x = P/H

sin x = 10/√389

Therefore, the value of sin x is 10/√(389).

Q53. Answer: (d) 2 √3 cm

Given:

The side of an equilateral triangle is 12 cm.

Formula used:

The formula for the inradius (r) of an equilateral triangle is r = (a√3)/6, where a is the length of a side of the equilateral triangle.

Calculation:

The side length of the equilateral triangle is given as 12 cm.

Using the formula for inradius, we get:

r = (a√3)/6

r = (12√3)/6

r = 2√3 cm

Therefore, the radius of the incircle of the equilateral triangle is 2√3 cm.

Q54. Answer: (b) x + 2

Given:

The average age of a class of 6 girls is x years. Four new girls ages x - 2, x + 4, x + 8, and x + 10 join the class.

Formula used:

The formula for the average (arithmetic mean) of a set of n numbers is:

average = (sum of the n numbers)/n

Calculation:

The sum of the ages of the 6 girls in the class is 6x.

The sum of the ages of the 4 new girls is (x - 2) + (x + 4) + (x + 8) + (x + 10) = 4x + 20.

The total number of girls in the class after the new girls join is 6 + 4 = 10.

The new sum of ages in the class is 6x + 4x + 20 = 10x + 20.

The new average age of the class is the new sum of ages divided by the number of girls in the class, so we get:

average = (10x + 20)/10

average = x + 2

Therefore, the new average age of the class is x + 2 years.

Q55. Answer: (d) 36 cm

Shortcut Trick

Since MN || EF, by the properties of similar triangles (ΔDMN ~ ΔDEF), the ratio of the corresponding sides is equal to the ratio of MN and EF.

Ratio DM : DE = MN : EF = 2 : 5

Given DE = 5 units = 60 cm => 1 unit = 12 cm

DM = 2 units = 2 × 12 = 24 cm

ME = DE − DM = 60 − 24 = 36 cm

Therefore The correct answer is 36 cm.

Alternate Method

Given: DE = 60 cm, MN || EF, and MN : EF = 2 : 5.

Formula Used: According to the Basic Proportionality Theorem or Thales Theorem, if a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio. For similar triangles ΔDMN and ΔDEF, DM/DE = MN/EF.

Calculations:

=> In ΔDMN and ΔDEF, angle D is common and angle DMN = angle DEF (corresponding angles as MN || EF).

=> ΔDMN ~ ΔDEF (By AA similarity criterion).

=> DM/DE = MN/EF

=> DM/60 = 2/5

=> DM = (2 × 60) / 5

=> DM = 24 cm

=> Now, ME = DE − DM

=> ME = 60 − 24 = 36 cm

Therefore The correct answer is 36 cm.

YourMockTest.com — Free Study Material

Additional Information

Basic Proportionality Theorem (Thales Theorem)

If a line is parallel to one side of a triangle, it divides the other two sides in the same ratio. Formula: DM/ME = DN/NF.

Similarity Ratios

For similar triangles, the ratio of all corresponding linear components (sides, medians, altitudes, perimeters) is equal. Side Ratio = Perimeter Ratio.

Area Ratio Property

The ratio of the areas of two similar triangles is equal to the square of the ratio of their corresponding sides. Area(ΔDMN) / Area(ΔDEF) = (MN/EF)².

Q56. Answer: (a) 90 degree

Let's draw a tangent from point P to tangent

AB which intersects tangent AB at point Q.

Let angle QBP=x°

Therefore angle QPB=x° (Because PQ=BQ)

Now Let angle PAQ = y°

angle QPA=y° (Because PQ=AQ)

Therefore In triangle PAB

angle PAB + angle PBA + angle APB = 180°

=> y + x + (x + y) = 180

=> 2x + 2y = 180

=> 2(x + y) = 180

=> x + y = 90

Therefore angle APB=90˚

Q57. Answer: (b) 4 : 5

Calculation:

Salary of F = Rs. 400

Salary of H = Rs. 500

Ratio of salary of F to the salary of H = 400 : 500

=> 4 : 5

Therefore Option 2 is the correct answer.

Q58. Answer: (d) $a^3 + b^3 + 8c^3 - 6abc$

Given:

(a + b + 2c)(a2 + b2 + 4c2 - ab - 2bc - 2ca)

Formula used:

$(x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx) = x^3 + y^3 + z^3 - 3xyz$

Calculation:

(a + b + 2c)(a2 + b2 + 4c2 - ab - 2bc - 2ca)

Comparing with (x + y + z)(x2 + y2 + z2 - xy - yz - zx)

x = a, y= b and z = 2c

Using the formula, the value of (a + b + 2c)(a2 + b2 + 4c2 - ab - 2bc - 2ca) = a3 + b3 + (2c)3 - 3ab(2c) = a3 + b3 + 8c3 - 6abc

Therefore Option 4 is the correct answer.

Q59. Answer: (d) 1/6

Given

X can complete the work in 18 days.

So, X's one day work = 1/18

Calculation:

Let's find Y's one-day work:

Y can do the same work in half the time taken by X, which means Y can complete the work in 18/2 = 9 days.

So, Y's one day work = 1/9

Let's find their combined one-day work:
Combined one day work of X and Y = X's one day work + Y's one day work
= 1/18 + 1/9
= 1/18 + 2/18 (We find the LCM of 18 and 9, which is 18)
= 3/18
= 1/6
Therefore, working together, X and Y can complete 1/6th part of the same work in a day.

Q60. Answer: (d) 2

Shortcut Trick
Substitution Method: Assume a specific value for θ to simplify the expression quickly.
Let θ = 45°. We know that tan 45° = 1, sec 45° = √2, cot 45° = 1, and cosec 45° = √2.
Substitute these values into the expression: (1 + 1 − √2)(1 + 1 + √2)
=> (2 − √2)(2 + √2) = $2^2 - (\sqrt{2})^2$
=> 4 − 2 = 2
Therefore The correct answer is 2.
Alternate Method
Given: The expression (1 + tan θ − sec θ)(1 + cot θ + cosec θ)
Formula Used: tan θ = sin θ/cos θ | cot θ = cos θ/sin θ | sec θ = 1/cos θ | cosec θ = 1/sin θ
=> (1 + sin θ/cos θ − 1/cos θ) × (1 + cos θ/sin θ + 1/sin θ)
=> [(cos θ + sin θ − 1) / cos θ] × [(sin θ + cos θ + 1) / sin θ]
=> [(sin θ + cos θ) − 1] [(sin θ + cos θ) + 1] / (sin θ cos θ)
Using the algebraic identity (a − b)(a + b) = $a^2 - b^2$:
=> [(sin θ + cos θ)² − 1²] / (sin θ cos θ)
=> ($\sin^2\theta + \cos^2\theta$ + 2 sin θ cos θ − 1) / (sin θ cos θ)
Since $\sin^2\theta + \cos^2\theta = 1$:
=> (1 + 2 sin θ cos θ − 1) / (sin θ cos θ)
=> (2 sin θ cos θ) / (sin θ cos θ)
=> 2
Therefore The correct answer is 2.
Additional Information
Trigonometric Identities
Fundamental identities include $\sin^2\theta + \cos^2\theta = 1$, $1 + \tan^2\theta = \sec^2\theta$, and $1 + \cot^2\theta = \text{cosec}^2\theta$.
Reciprocal Relations
Recall that cosec θ = 1/sin θ, sec θ = 1/cos θ, and cot θ = 1/tan θ are essential for simplification.
Algebraic Applications
Trigonometric expressions often utilize $(a+b)^2 = a^2 + b^2 + 2ab$ and $(a-b)(a+b) = a^2-b^2$ for reduction.

Q61. Answer: (c) 12.25 cm

Given:
Circumference of first circle = 77 cm
Circumference of second circle = 154 cm
Formula:
Circumference of a circle = 2πr, where r is the radius of the circle.
Calculation:
Let the radius of the first circle be r1 and the radius of the second circle be r2.
Then, we have:
2πr1 = 77 ... (1)
2πr2 = 154 ... (2)
Dividing equation (2) by equation (1), we get:
r2/r1 = 154/77
r2/r1 = 2

r2 = 2r1
Now, the difference between their radii is:
r2 - r1 = 2r1 - r1 = r1
From equation (1), we have:
2πr1 = 77
r1 = 77/(2π)
r1 = 12.25 cm (approx)
Therefore, the difference between their radii is 12.25 cm.

Q62. Answer: (c) 9 : 8

Given:
Selling price = 4/5 of the marked price
Loss percentage = 10%
Formula:
Profit or Loss percentage = (Actual difference between the Selling price and Cost price / Cost price) x 100%
Selling price = Cost price + Profit
Calculation:
Let the marked price of the watch be M and the cost price be C.
According to the question, the selling price is 4/5 of the marked price. Therefore,
Selling price = 4/5 × M
Since there is a loss of 10%, the selling price will be 90% of the cost price. Therefore,
Selling price = 90% of Cost price
= 0.9C
Equating the above two expressions for the selling price, we get:
4/5 × M = 0.9C
Simplifying the above expression, we get:
M = (9/8) × C
The ratio of the marked price and cost price of the watch is given by:
M/C = (9/8)
Therefore, the required ratio is 9 : 8.
Alternate Method
Discount% = 20%
So
MP : SP
100 : 80
And
Loss% = 10%
SP : CP
90 : 100
So combine the ratio
MP : SP : CP
100 : 80
90 : 100
9000 : 7200 : 8000
MP : CP = 9 : 8

Q63. Answer: (b) 70 km/hr

Given:
Distance to be covered = 280 km
Time is taken without delay = t
Usual speed of the car = s
Delayed time = 60 minutes = 1 hour

Reduced speed = s - 14 km/hr

Formula used:

Distance = Speed x Time

Calculation:

Let the usual speed of the car be x km/hr.

Distance to be covered = 280 km

Let the scheduled time be t hours.

The actual time is taken = t - 1 hour (as the car left 60 minutes early)

Now, according to the problem, in order to reach the destination in time, the car has to slow its usual speed by 14 km/hr. So, its speed becomes (x - 14) km/hr.

Using the formula: Distance = Speed × Time, we get:

280 = (x - 14) × (t)..... (1)

Similarly, 280 = (x) × (t - 1), when it reached 1 hr earlier.....(2)

Subtract equation (2) from (1)

We get

280/x - 280/(x-14) = -1

280 × 14 = x(x - 14)

x^2 - 14x - 3920 = 0

(x - 70)(x + 56) = 0

x = 70 or x = -56

As speed cannot be negative.

so, x = 70 km/hr

Therefore Option 2 is the correct answer.

Q64. Answer: (d) 1

Calculation

cos2 θ + sin2 θ = 1

We know that sin θ = cos (90° – θ)

Therefore sin 21° = cos (90 – 21)° = cos 69°

So

sin2 21° + sin2 69°

cos2 69° + sin2 69° = 1

Therefore Option 4 is the correct answer.

Q65. Answer: (a) 60 percent

Calculation:

Number of girls in S1 = 400

Number of girls in S2 = 1000

Number of girls in S1 less than the number of girls in S2 = 1000 - 400

=> 600

Percentage of number of girls in S1 is how much less than the number of

girls in S2 = 600/1000 × 100

=> 60 percent

Therefore Option 1 is the correct answer.

Q66. Answer: (c) Rs. 1000

Given:

Simple Interest = Rs. 360

Time = 2 years

Concept Used:

SI = (P × R × T)/100

Calculation:

Let the sum be Rs. x.

According to question,

=> (1/2x × 20 × 2)/100 + (1/5x × 25 × 2)/100 + (3/10x × 10 × 2)/100 = 360

=> 20x + 10x + 6x = 360 × 100

=> 36x = 36000

=> x = 1000

Therefore Sum = Rs. 1000

Therefore Option 3 is the correct answer.

Q67. Answer: (c) 33 kg

Given:

Average weight of 15 persons is 30 kg.

A new person whose weight is 78 kg joins the group.

To find:

The average weight of 16 persons.

Solution:

The total weight of 15 persons is 15 * 30 = 450 kg.

When the new person joins the group, the total weight becomes 450 + 78 = 528 kg.

The average weight of 16 persons can be calculated by dividing the total weight by the number of persons:

Average weight of 16 persons = (Total weight of 16 persons) / (Number of persons)

= 528/16

= 33 kg

Therefore, the average weight of 16 persons is 33 kg.

Q68. Answer: (c) Rs. 1000 and Rs. 2500

Given:

Ram purchases two watches for Rs. 3,500.

Selling one watch at a profit of 25 percent and the other at a loss of 10 percent, he neither earns profit nor suffers loss in the whole transaction.

Formula:

Selling price = Cost price + Profit or - Loss

Solution:

Let's assume the cost price of the first watch to be x and the cost price of the second watch to be (3500 - x), since the total cost price is Rs. 3,500.

The selling price of the first watch will be 1.25x (i.e., a 25% profit on the cost price) and the selling price of the second watch will be 0.9(3500 - x) (i.e., a 10% loss on the cost price).

Since there is no profit or loss in the whole transaction, the total selling price should be equal to the total cost price. That is,

1.25x + 0.9(3500 - x) = 3500

Simplifying the equation, we get:

1.25x + 3150 - 0.9x = 3500

0.35x = 350

x = 1000

Therefore, the cost price of the first watch is Rs. 1000 and the cost price of the second watch is Rs. 2500.

Q69. Answer: (c) 1

Given:

5A72B is divisible by 11

Formula:

A number is divisible by 11 if the difference between the sum of its digits in the odd places and the sum of its digits in the even places is either 0 or a multiple of 11.

Calculation:

(12 + B) - (A + 2) = 10 + B - A

For the number 5A72B to be divisible by 11, the above expression should be either 0 or a multiple of 11.

10 + B - A = 0, or

YourMockTest.com — Free Study Material

10 + B - A = 0

B - A = -10 or 11 - 10 = 1

B - A = 1

Therefore Option 3 is the correct answer.

Q70. Answer: (d) 1 : 5

Calculation:

Total sales of branch A for the year 2018 = 14

Total sales of branch C for the year 2020 = 70

Ratio = 14 : 70

=> = 1 : 5

Therefore Option 4 is the correct answer.

Q71. Answer: (b) 16 : 30 : 15

Given:

P : Q = 2 : 3

Q : R = 4 : 5

R : S = 2 : 1

Calculation :

P : Q = 2 : 3. ----(i)

Q : R = 4 : 5 ---(ii)

To equate the value of Q in both equation we will multiply 4 in equation (i) and 3 in equation (ii)

So

P : Q = 8 : 12

And Q : R = 12 : 15 .....(iii)

R : S = 2 : 1 .....(iv)

To equate the value of R in both equation we will multiply 2 in equation (iii) and 15 in equation (iv)

=> Q : R = 24 : 30

=> R : S = 30 : 15

=> P : Q = 8 : 12 (Multiply by 2)

=> P : Q = 16 : 24

Therefore The value of P : R : S is 16 : 30 : 15.

Therefore Option 2 is the correct answer.

Q72. Answer: (b) -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= 0

=> $k^2 +2k + 1 = 0$

=> (k +1)2 = 0

=> (k + 1) = 0

=> k = - 1

Now, K^(17)+1/(K^{11})?

=> (-1)^(17)+1/($(-1)^{11}$)?

=> -1 +(- 1)

=> -2

Therefore Option 2 is the correct answer.

YourMockTest.com — Free Study Material

Q73. Answer: (a) 8 cm

Given:

The length of chord AB is 16 cm.

Concept used:

If an angle subtended by a chord on the circumference of a circle is 90 degrees, then the chord is the circle's diameter.

Calculation:

Let O be the circle's center, and let C is the point on the circumference.

Using, If an angle subtended by a chord on the circumference of a circle is 90 degrees, then the chord is the circle's diameter.

So, AB is the diameter.

The radius is half of the diameter.

AB = 2(OA) = 2(OB)

=> (OA) = (OB) = AB/2 = 16/2

=> 8 cm

Therefore Option 1 is the correct answer.

Q74. Answer: (a) 126/5

Concept Used:

Follow the BODMAS rule to solve this question, as per the order given below.

Calculation:

=> (1/2+3/4÷1/4+3/4÷1/2+1/4)/(3/4×1/4÷1/2-1/2÷3/4×1/4)

=> (1/2+3+3/2+1/4)/(3/2×1/4-1/2×1/3)

=> (21/4)/(3/8-1/6)

=> (21/4)/(5/24)

=> 126/5

Therefore Option 1 is the correct answer.

Q75. Answer: (b) 5260

Given:

20% of x = 14% of y

Calculation:

Let the smaller number be x

Let the larger number be y

20/100 × x = 14/100 × y

=> x/y = 7/10

We know that the sum of both numbers is 8942.

Therefore, x + y = 8942

Substituting x/y = 7/10, we get:

x = (7/10) × y

Substituting this value of x in the equation x + y = 8942, we get:

(7/10) × y + y = 8942

=> (17/10) × y = 8942

=> y = 8942/(17/10)

=> y = 5260

Hence, the larger number is 5260.

Therefore Option 2 is the correct answer.

Q76. Answer: (a) Impeccable

The correct answer is option 1, Impeccable.

Key Points

• Amiss means not quite right or inappropriate.

• For example, "Something seems amiss with this plan."

• Impeccable means perfect or faultless.

• For example, ""Her work is always impeccable."

• Overall, the opposite of amiss is something that is perfect or faultless, which is why the correct answer is Impeccable.

Additional Information

• Option 2, Marred, means damaged or spoiled. For example, "The painting was marred by a scratch."

• Option 3, Gaily, means in a cheerful or lighthearted manner. For example, "She skipped gaily down the street."

• Option 4, Vitiated, means weakened or impaired. For example, "The medicine was vitiated by exposure to heat."

Q77. Answer: (c) a public sector bank is high than that at

Here the correct answer is Option 3.

Key Points

• The error is in option 3: "a public sector bank is high than that at" should be "a public sector bank is higher than that at".

• The comparative form of "high" is "higher", not "high than".

• This is a common mistake made by non-native speakers of English.

• In the given sentence, the average staff cost at a public sector bank and its private sector counterpart is being compared.

• Thus, the correct answer is Option 3.

Correct Sentence: A study finds that the average staff cost at a public sector bank is higher than that at its private sector counterpart.

Q78. Answer: (c) Prunke

The solution is in Hindi. Read it online.

Q79. Answer: (d) Fine feathers do not make fine birds.

Here the correct answer is Fine feathers do not make fine birds.

Key Points

• The correct answer is option 4: "Fine feathers do not make fine birds."

• This sentence is spelled correctly and makes sense grammatically.

• Option 1 has two spelling errors: "fthers" should be "feathers" and "brds" should be "birds."

• The sentence should read: "Fine feathers do not make fine birds."

• Option 2 also has two spelling errors: "Figne" should be "Fine" and "brds" should be "birds."

• The sentence should read: "Fine feathers do not make fine birds."

• Option 3 has one spelling error: "fathears" should be "feathers."

• The sentence should read: "Fine feathers do not make fine birds."

• Overall, option 4 is the correct answer because it is spelled correctly and makes sense grammatically.

Q80. Answer: (c) No improvement

Here the correct answer is No Improvement.

Key Points

• Option 3, "No improvement," is the correct answer.

• The original sentence is grammatically correct.

• "Exists in" is the correct phrasal verb to use with "fashion" in this context.

• The sentence means that fashion is not limited to dresses only, but can be found in other areas as well.

• There is no need to change "exists in" to "exist of," "existing at," or "which exist on" as they do not convey the intended meaning of the sentence. Therefore, option 3 is the correct answer.

Q81. Answer: (d) Unconcerned

Here the correct answer is Unconcerned.

Key Points

• Worried means feeling anxious or concerned about something.

• For example, "I am worried about my upcoming exam."

Additional Information

• Option 1, Leisure, means free time or relaxation.

• For example, "I enjoy spending my leisure time reading books."

• Option 2, Withdraw, means to remove or take back.

• For example, "I decided to withdraw my application for the job."

• Option 3, Proceed, means to continue or move forward.

• For example, "We can proceed with the project once we have all the necessary resources."

• Option 4, Unconcerned, means not worried or not caring about something.

• For example, "He seemed unconcerned about the potential risks of the activity."

• Overall, option 4 is the opposite of worried because it suggests a lack of concern or anxiety.

Q82. Answer: (a) QRSP

Here the correct answer is QRSP.

Key Points

• The correct answer is option 1 - QRSP.

• The rearranged sentence would be: "The MSP for wheat is up by 2 per cent while that of rapeseed-mustard is up by 8.6 per cent, perhaps indicating that the government wants to focus more on edible oils/oilseeds than on wheat."

• This order makes more sense as it starts with the information about the MSP for wheat and rapeseed-mustard, followed by the possible reason for the increase in MSP for oilseeds.

Q83. Answer: (d) Market where prices are rising

The solution is in Hindi. Read it online.

Q84. Answer: (a) then

Here the correct answer is Then.

Key Points

• The correct answer to fill in the blank is "then."

• The word 'won' should indicate the granting of pardon from the president of the past time.

• Then means (at) that time (in the past or in the future).

• Example: I wanted to live in the city, but my then husband (= the man who was my husband at that time) preferred the country.

• So "then-President Karzai" means that at the time when this event happened, Karzai was the president.

• Thus, the correct answer is Option 1.

Correct Sentence: We won an unprecedented pardon from then-President Karzai, and Gulnaz was freed.

Additional Information

• The other options do not fit grammatically or contextually:

• "Those" is a pronoun that refers to a specific group of people or things.

• "At time" is a phrase that does not provide a clear sense of time or indicate a specific point in time. It lacks the specificity required in this sentence.

• "Later" is an adverb that indicates a subsequent time or a point in the future.

Q85. Answer: (d) advertising

Here the correct answer is Advertising.

Key Points

• The sentence suggests that the makers of sports drinks invest a significant amount of money in promoting their products each year.

• This is done through various forms of advertising such as television commercials, billboards, social media campaigns, and sponsorships of sports events and athletes.

• Advertising is the correct answer. It refers to the act of promoting a product or service through various media channels such as television, radio, print, and digital platforms. In the context of sports drinks, advertising is used to create brand awareness, highlight the benefits of the product, and persuade consumers to purchase it.

• For example, Gatorade, a popular sports drink brand, spends millions of dollars on advertising campaigns featuring famous athletes such as Serena Williams and Michael Jordan to promote their products. These ads showcase the benefits of Gatorade, such as hydration and electrolyte replenishment, and encourage consumers to choose Gatorade over other sports drinks.

• Option 1, snacking, is not relevant to the context of the sentence as it does not relate to the promotion of sports drinks.

• Option 2, lingering, does not fit the context either as it implies a sense of staying or remaining in a place, which is not applicable to the sentence.

• Option 3, varying, is also not appropriate as it does not relate to the promotion of sports drinks. It suggests a sense of changing or altering something, which is not relevant to the context.

• Overall, the correct answer is advertising as it aligns with the context of the sentence and the practices of sports drink manufacturers.

• Thus, the correct answer is Option 4.

Q86. Answer: (d) Hopeful

The solution is in Hindi. Read it online.

Q87. Answer: (c) In the five next

Here the correct answer is Option 3.

Key Points

• The error is in option 3, "In the five next". The correct phrase should be "In the next five".

• This is because in English, we usually put the number before the noun when talking about time periods.

• For example, we say "in the next five years" instead of "in the five next years".

• This is a common mistake for non-native speakers of English.

• Thus, the correct answer is Option 3.

Correct Sentence: In the next five years, the migration will surely stop.

Q88. Answer: (b) didn't

Here the correct answer is Didn't.

Key Points

• Hasn't and haven't cannot be used because they are followed by the third form of the verb but here, the blank is followed by the first of the verb i.e. pay.

• Option 3 is also incorrect as it forms the incorrect structure.

• Did is followed by the first form of the verb i.e. pay.

• Thus, the correct answer is Option 2.

Correct Sentence: I didn't pay too much attention to the stories.

Q89. Answer: (d) Heavy

The correct answer is option 4, "Heavy."

Key Points

• "Ponderous" means something that is very heavy and difficult to move or carry.

• For example, "The elephant's ponderous footsteps shook the ground."

• Heavy - having great weight or density.

• For example, "The elephant was too heavy for the small bridge to support."

• Option 1, "Unruly," means something that is difficult to control or manage.

• For example, "The unruly children refused to sit still in class."

• Option 2, "Wondrous," means something that is amazing or awe-inspiring.

• For example, "The wondrous beauty of the sunset took my breath away."

• Option 3, "Bluff," means something that is a steep cliff or a steep slope.

• For example, "The hikers had to climb a steep bluff to reach the top of the mountain."

• Thus, the correct answer is Option 4.

Q90. Answer: (c) Volunteer

The solution is in Hindi. Read it online.

Q91. Answer: (a) To stop paying attention for a moment

Here the correct answer is To stop paying attention for a moment.

Key Points

• The idiom "take your eye off the ball" is often used in sports, particularly in games like cricket, baseball, and football, where the ball is the main focus of the game. It means to become distracted or lose focus on the task at hand, especially when it is important.

• For example, if a cricket fielder takes his eye off the ball for a moment, he might miss a catch or let the ball go past him, resulting in a run for the opposing team. Similarly, in any other situation, if you take your eye off the ball, you might miss an important detail or make a mistake.

• Hence, option 1 - To stop paying attention for a moment - is the correct answer as it best expresses the meaning of the idiom.

Q92. Answer: (a) The President has been assassinated by the extremists.

Here the correct answer is The President has been assassinated by the extremists.

Key Points

• The given sentence is in the present perfect tense.

• Passive Voice sentences of Present Perfect Tense use “has/have” along with “been” as a helping verb with respective number nouns and pronouns.

• Sentence structure:

• Active: Subject + has/have + V3 + object.

• Passive: Object + has/have + been + V3 + by + subject.

• Example:

• Active: Reema has cooked food.

• Passive: Food has been cooked by Reema.

• Interchange the object and subject with each other, i.e. object of the active sentence become the subject of the passive sentence.

• Thus, the option that expresses the given sentence in passive voice is option 1.

Correct Passive Voice: The President has been assassinated by the extremists.

Q93. Answer: (a) visual

Here the correct answer is Visual.

Key Points

• The correct answer is option 1, visual.

• Illusions are typically related to visual processes because they involve the perception of something that is not actually there or is different from what it appears to be.

• Visual illusions can be caused by a variety of factors, including the way our eyes and brain process information, as well as external factors such as lighting and perspective.

• Thus, the correct answer is Option 1.

Correct Sentence: Illusions are usually related with visual processes.

Additional Information

• Let's have a look at the meaning of the other words given in options:-

• Audio - sound, especially when recorded, transmitted, or reproduced.

• Oratory - skillful and effective public speaking

• Digital - using or relating to computers and the internet.

Q94. Answer: (b) The father told his daughter that her mother would be waiting for him.

Here the correct answer is The father told his daughter that her mother would be waiting for him.

Key Points

• The given sentence is in direct speech. We need to change it into indirect speech.

• The reported verb has an object, thus, 'said to' changes to 'told'.

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

• The pronoun 'your' changes to 'her' and 'me' changes to 'him'.

• The modal verb 'will' changes to 'would'.

• Thus, the correct answer is Option 2.

Correct Indirect Speech: The father told his daughter that her mother would be waiting for him.

Q95. Answer: (c) Stoic

The solution is in Hindi. Read it online.

Q96. Answer: (d) delivery

Here the correct answer is Delivery.

Key Points

• In the context of the sentence, the word "delivery" is the most appropriate option as it refers to the act of transporting goods or items from one place to another. The sentence suggests that the e-commerce industry has historically struggled with transporting goods or items from one place to another, indicating that the word "delivery" fits well in the blank.

• Example sentence: The company offers free delivery for orders above $50.

• Thus, the correct answer is Option 4.

Additional Information

• 1) flipping - This word refers to the act of turning something over quickly or suddenly. It does not fit in the context of the sentence as it does not relate to the transportation of goods.

YourMockTest.com – Free Study Material

• Example sentence: The chef was flipping pancakes in the air.

• 2) placing - This word refers to the act of putting something in a particular position or location. While it is related to the transportation of goods, it does not convey the idea of moving them from one place to another.

• Example sentence: She was placing the books on the shelf.

• 3) storing - This word refers to the act of keeping something in a particular place for future use. It does not fit in the context of the sentence as it does not relate to the transportation of goods.

• Example sentence: He was storing his winter clothes in the attic.

Q97. Answer: (d) orders

Here the correct answer is Orders.

Key Points

• The correct answer to fill in blank number 2 is "orders."

• Now let's explain the meanings of all the words given as options in the context of the sentence:

• Systems: In the context of e-commerce, "systems" generally refers to the software, hardware, and processes that facilitate the functioning of an e-commerce platform. It can include the backend infrastructure, databases, payment processing systems, and other components that enable the operation of an online store.

• Example sentence: The e-commerce platform implemented robust systems to ensure smooth order processing and inventory management.

• Series: "Series" refers to a sequence or set of things that follow a particular order or pattern. In the context of the sentence, it does not fit because it does not directly relate to customers placing something from any location.

• Example sentence: The e-commerce website launched a series offers of promotional to attract customers.

• Locals: "Locals" refers to people who are from or reside in a particular area or locality. In the context of the sentence, it does not fit because it does not relate to customers placing orders or the challenges faced by the e-commerce industry.

• Example sentence: The e-commerce company partnered with local businesses to provide faster delivery to their customers.

• Orders: In the context of e-commerce, "orders" refer to the requests made by customers to purchase products or services. Customers place orders to buy items from online stores, specifying the quantity, product details, and sometimes additional preferences.

• Example sentence: The customer placed an order for a new smartphone on the e-commerce website.

• In summary, "orders" is the correct answer because it directly relates to customers placing requests to buy products or services from any location, which aligns with the context of the passage.

Q98. Answer: (a) terms

Here the correct answer is Terms.

Key Points

• The correct answer to fill in blank number 3 is "terms."

• 'In terms of' is a phrase that means by means of; with reference to.

• Example: The watchman thought more in terms of completion than conclusion, more of fulfilment than depletion.

• Now let's explain the meanings of all the words given as options in the context of the sentence:

• Terms: In the context of the sentence, "terms" refers to the conditions or factors that affect the cost of shipping and order fulfillment times in the e-commerce industry. It can include variables such as shipping rates, delivery options, handling fees, and other factors that impact the overall cost and time it takes to fulfill an order.

• Example sentence: The e-commerce platform offers free shipping for orders above a certain amount, as stated in their terms and conditions.

• Firms: "Firms" generally refers to businesses or companies, especially those involved in providing goods or services. In the context of the sentence, it does not fit because it does not relate directly to the cost of shipping and order fulfillment times.

• Example sentence: Several e-commerce firms have emerged as key players in the market.

• Shifts: "Shifts" refer to changes or transitions in a particular situation or condition. In the context of the sentence, it can refer to changes in shipping costs and order fulfillment times due to the convenience offered by the Internet in allowing customers to place orders from any location.

• Example sentence: The e-commerce industry has experienced significant shifts in customer expectations and demands over the years.

• Tags: In the context of the sentence, "tags" does not seem to be the most appropriate word to fill in blank number 3. "Tags" can refer to labels or markers used for identification or categorization purposes, but it does not align with the concept of shipping costs and order fulfillment times.

• Example sentence: The e-commerce platform uses descriptive tags to help customers easily search for products.

• In summary, "terms" is the correct answer because it directly relates to the conditions or factors that impact the cost of shipping

and order fulfillment times in the e-commerce industry, which aligns with the context of the passage.

Q99. Answer: (b) much

Here the correct answer is Much.

Key Points

• The correct answer to fill in blank number 4 is "much."

• The difference between "much" and "many" lies in their usage with countable and uncountable nouns.

• "Much" is used with uncountable nouns, which are typically substances, concepts, or things that cannot be easily separated or counted individually. Uncountable nouns do not have a plural form. Examples of uncountable nouns include "water," "information," and "furniture." "Much" indicates a large amount or degree of an uncountable noun.

• Example: "There is much water in the lake."

• "Many" is used with countable nouns, which are objects or entities that can be counted individually or have a plural form. Examples of countable nouns include "books," "dogs," and "chairs." "Many" indicates a large number or quantity of countable nouns.

• Example: "There are many books on the shelf."

• In the given sentence, the word "work" in the phrase "offload (4) _____ of the server processing work" is an uncountable noun. We cannot count "work" individually; it refers to the overall concept or activity of processing server requests. Therefore, we use "much" to indicate a significant amount or portion of the server processing work.

• Example: "By automating certain tasks, the company can handle much of the administrative work."

• "Many" was not used because it is not suitable for uncountable nouns like "work." If "work" were replaced with a countable noun, such as "tasks" or "requests," then "many" could be used to indicate a large number of those countable items.

• Example: "By outsourcing customer service, the company can handle many customer inquiries simultaneously."

• In summary, "much" is used with uncountable nouns, while "many" is used with countable nouns. Since "work" in the given sentence is an uncountable noun, we choose "much" to convey the idea of offloading a significant amount of server processing work.

Additional Information

• "Must" is a modal verb used to express obligation or necessity. In the context of the sentence, it does not fit because it does not convey the idea of offloading a portion of server processing work.

• Example sentence: Merchants must ensure secure payment processing for their e-commerce websites.

• "More" is a determiner used to compare quantities or indicate an additional amount. In the context of the sentence, it does not fit because it does not convey the idea of offloading a specific additional amount of server processing work.

• Example sentence: The e-commerce website needs more server resources to handle increased traffic during the holiday season.

Q100. Answer: (c) retain

Here the correct answer is Retain.

Key Points

• The correct answer to fill in blank number 5 is "retain."

• Now let's explain the meanings of all the words given as options in the context of the sentence:

• "Placate" is a verb that means to appease or pacify someone to reduce their anger or dissatisfaction. In the context of the sentence, it does not fit because it does not relate to the idea of control over the look and feel of online stores.

• Example sentence: The customer service representative tried to placate the angry customer by offering a refund.

• "Fumigate" is a verb that means to disinfect or rid an area of pests or harmful organisms by using fumes or chemicals. In the context of the sentence, it does not fit because it does not relate to control over the look and feel of online stores.

• Example sentence: The restaurant had to fum kitchen to eliminate theigate the cockroach infestation.

• "Retain" is a verb that means to keep or maintain possession or control over something. In the context of the sentence, it fits because it indicates that the third-party systems still maintain or keep control over the look and feel of their online stores.

• Example sentence: The designer helped the client retain their brand identity while revamping the website.

• "Discard" is a verb that means to get rid of or throw away something as no longer useful or needed. In the context of the sentence, it does not fit because it suggests the opposite of control and keeping something.

• Example sentence: The company decided to discard outdated product inventory to make room for new stock.

• In summary, "retain" is the correct answer because it accurately conveys that the third-party systems maintain or keep control over the look and feel of the online stores, which aligns with the context of the passage.

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