SSC CHSL Previous Paper 8 (Held On: 19 March 2020 Shift 2) (Previous Year Paper)

SSC Combined Higher Secondary Level (CHSL) • 2020 • 100 questions • 60 minutes • Answer key and solutions

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ENGLISH LANGUAGE

Q1. Select the most appropriate meaning of the given idiom.

Reinventing the wheel

(a) Disturbing the system which has already been in use
(b) Wasting one's time for things that have already been satisfactorily done
(c) Analysing various factors of happenings
(d) Examining circumstances that have already been understood

Q2. Select the correct indirect form of the given sentence.

Nakul asked her, "How do you know that Rahul has told this to him?"

(a) Nakul asked her how she knew that Rahul had told that to him.
(b) Nakul asked her that how she has known that Rahul has told that to him.
(c) Nakul asked her how she knew that Rahul has told that to him.
(d) Nakul asked her that how she knows that Rahul had told that to him.

Q3. Select the most appropriate ANTONYM of the given word.

TAME

(a) Upset
(b) Restrain
(c) Sanctify
(d) Control

Q4. Select the most appropriate synonym of the given word.

TARNISH

(a) Damage
(b) Decorate
(c) Appease
(d) Heighten

Directions

Direction: In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

Forest fire always (1) ____ by one of two reasons-naturally caused or human-caused. Natural fire is generally (2) __ by lightning, with a very small percentage (3) __ by spontaneous combustion of dry fuel such as sawdust and leaves. (4) __, human-caused fire can happen (5) ____ any number of reasons.

Q5. Select the most appropriate option for blank No. 1.

(a) takes up
(b) happens
(c) causes

(d) creates

Q6. Select the most appropriate option for blank No. 2.

(a) caused
(b) reasoned
(c) begun
(d) troubled

Q7. Select the most appropriate option for blank No. 3.

(a) achieved
(b) gathered
(c) contributed
(d) attained

Q8. Select the most appropriate option for blank No. 4.

(a) Consequently
(b) At the outset
(c) Unless
(d) On the other hand

Q9. Select the most appropriate option for blank No. 5.

(a) due to
(b) since
(c) hence forth
(d) because

Q10. In the sentence Identify the segment which contains the grammatical error.

Cats cannot be blamed for its behaviour to their masters as they are tamed so.

(a) for its behaviour
(b) to their masters
(c) as they are tamed so
(d) Cats cannot be blamed

Q11. Select the correct passive form of the given sentence.

This android can perform all the programmes perfectly well.

(a) All the programmes can be performed perfectly well by this android.
(b) All the programmes could have been performed perfectly well by this android.
(c) All the programmes can have been performed perfectly well by this android.
(d) All the programmes could be performed perfectly well by this android.

Q12. Given below are four Jumbled sentences. Out of the given options pick the one that gives their correct order.

A. He was on a pilgrimage to Jerusalem.

B. The villagers were kind though doubtful.

C. They offered him some food to eat and a room to stay.

D. One night, he took rest in a village unfamiliar on the way.

(a) DCAB
(b) CDBA
(c) ADBC
(d) CADB

Q13. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No improvement'.

She is tender-hearted by nature and I have found her eyes moist many a times over the sad face of any children.

(a) so many a times

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(b) many time
(c) No improvement
(d) many a time

Q14. Select the wrongly spelt word.
(a) Scrutinize
(b) Sympathize
(c) Compromize
(d) Colonize

Q15. In the sentence Identify the segment which contains the grammatical error.
Some of the issues discussed in the media nowadays has no relevance to the nation-building process.
(a) to the nation-building process
(b) has no relevance
(c) in the media nowadays
(d) Some of the issues discussed

Q16. Select the word which means the same as the group of words given.
A person living in the same age with another
(a) Partner
(b) Collaborator
(c) Contemporary
(d) Confidant

Q17. Select the most appropriate synonym of the given word.
PLEASANT
(a) Tiresome
(b) Tedious
(c) Refreshing
(d) Exasperating

Q18. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No improvement'.
The selection to the police department raised him as high to a kite.
(a) as high as
(b) No improvement
(c) so high to
(d) so high so

Q19. Select the most appropriate meaning of the given idiom.
Falling head over heels
(a) Falling deeply in love with someone
(b) feeling deep sympathy to the needy
(c) Fixing models without proper analysis
(d) Finding fault with others

Q20. Select the most appropriate ANTONYM of the given word.
DISPUTE
(a) Strengthen
(b) Quarrel
(c) Impute
(d) Concede

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Q21. Select the word which means the same as the group of words given.

A situation requiring a choice between equally undesirable alternatives or confusions

(a) Sophistication
(b) Instability
(c) Dilemma
(d) Complication

Q22. Fill in the blank with an appropriate option.

Children need special care and _____ from the side of their parents for making them emotionally strong.

(a) suspicion
(b) attention
(c) reflection
(d) compromise

Q23. Given below are four jumbled sentences. Out of the given options pick the one that gives their correct order.

A. The driver had a cloudy look drove off without taking him.

B. He asked a taxi driver to take him to the shopping mall.

C. He told the driver that he could pay the fare by card, not in cash.

D. He arrived on the outskirts of a city.

(a) DBCA
(b) ACDB
(c) DCAB
(d) CDBA

Q24. Select the wrongly spelt word.

(a) Tolerate
(b) Temperate
(c) Accomodate
(d) Promulgate

Q25. Directions: In this section, each of the following sentences has a blank space and each sentence is followed by four options. Select the most appropriate option to fill the blank space.

Unnecessary suspicion and lack of trust against the others are caused by _____.

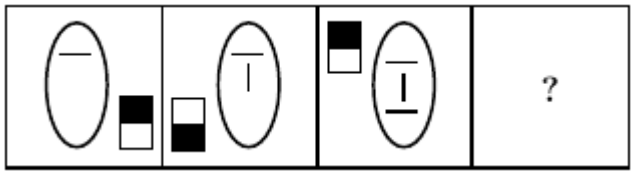
(a) prejudice
(b) contentment
(c) impartiality
(d) empathy

GENERAL INTELLIGENCE

Q26. Three of the following four words are alike in a certain way and one is different. Select the odd one.

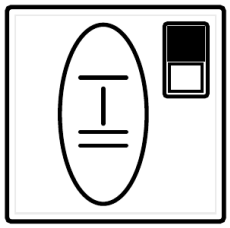
(a) South Africa
(b) Europe
(c) Africa
(d) North America

Q27. Select the figure that will come next in the following figure series.

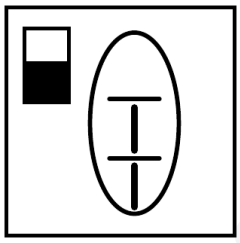


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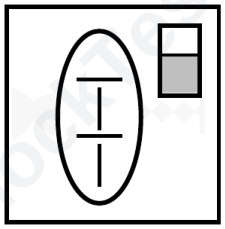
(a)



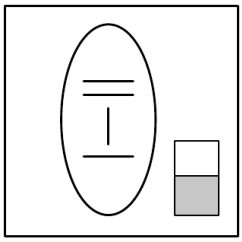
(b)



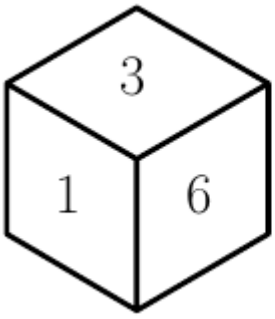
(c)

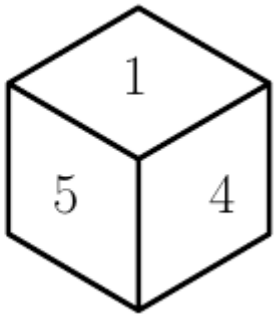


(d)



Q28. Two different positions of the same dice are shown below, the six faces of which are numbered 1 to 6. Which number is on the face opposite the face showing '1' ?





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

Q29. Select the correct mirror image of the given letter cluster when a vertical mirror is placed to the right of the cluster:

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F G E R M

(a)



(b)



(c)



(d)



Q30. Ina certain code language, 'STRONG' is written as 'RTSUQSNPMOFH'. How will 'ORDER' be written as in that language ?

(a) NORSCFDFRS
(b) NPQSCEDFQS
(c) OPQTCEDFQS
(d) NPQSCEGFQT

Q31. Select the option that is related to the third term in the same way as the second term is related to the first term.

Gloves : Hands : : Shoes : ?

(a) Cobbler
(b) Leather
(c) Feet
(d) Knee

Q32. Select the option in which the number set shares the same relationship as that shared by the given number set.

(11, 17, 204)

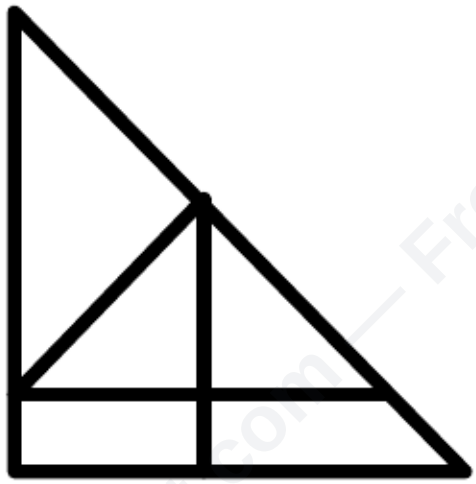
(a) (22, 14, 318)
(b) (24, 13, 225)
(c) (12, 21, 273)
(d) (9, 13, 147)

Q33. Select the number that can replace the question mark (?) in the following series.

50, 49, 53, 44, 60, 35, ?

(a) 71
(b) 117
(c) 70
(d) 104

Q34. How many triangles are there in the figure given below?



(a) 8
(b) 9
(c) 11
(d) 10

Q35. Select the combination of letters that when sequentially placed in the gaps of the given letter series will complete the series.

K_ _MKXZ_KX_MK_ZM

(a) XXMZK
(b) MZMZX
(c) XXMKX
(d) XZMZX

Q36. Select the option in which the number set shares the same relationship as that shared by the given number set.

(52, 48, 64)

(a) (61, 55, 36)
(b) (70, 62, 441)
(c) (82, 78, 81)
(d) (92, 90, 8)

Q37. Select the option that is related to the third letter cluster in the same way as the second letter cluster is related to the first letter cluster.

NR : MI :: BK : ?

(a) XM
(b) YU
(c) OP
(d) YP

Q38. Select the correct alternative to indicate the arrangement of the following words in a logical and meaningful order.

1. Mount Abu
2. World
3. India
4. Rajasthan
5. Nakki Lake

(a) 5, 1, 4, 3, 2

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(b) 5, 1, 4, 2, 3
(c) 1, 5, 3, 4, 2
(d) 5, 1, 2, 3, 4

Q39. In a batch of 68 students, 23 students do not participate in any of the two games i.e. cricket and squash, 17 students participate in cricket only, 24 students participate in cricket and squash. How many students participate in squash only?

(a) 28
(b) 4
(c) 21
(d) 20

Q40. Select the option that is related to the third number in the same way as the second number is related to the first number:

3 : 67 :: 6 : ?

(a) 349
(b) 55
(c) 42
(d) 222

Q41. Which two signs and two numbers should be interchanged to make the given equation correct?

16 + 8 × 25 - 15 ÷ 5 = 138

(a) × and + ; 15 and 25
(b) ÷ and - ; 15 and 5
(c) × and - ; 8 and 25
(d) × and + ; 8 and 25

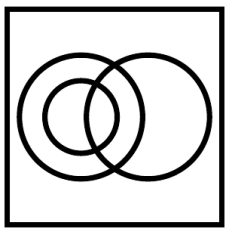
Q42. In a certain language, 'WORKSHOP' is written as '231518111981516'. How will 'NOVEMBER' be written as in that language ?

(a) 1317225132522
(b) 1414225142422
(c) 1415225132518
(d) 1115125142222

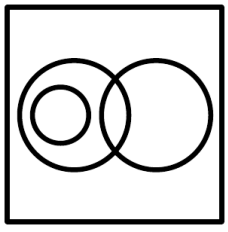
Q43. Select the Venn diagram that best represented the relationship between the following classes,

Infants, Males, Fathers

(a)

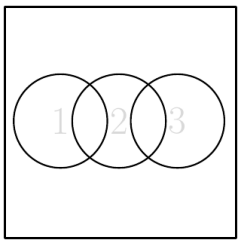


(b)

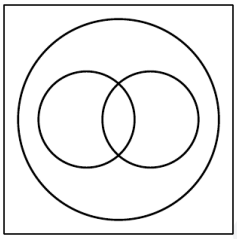


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(c)



(d)



Q44. Select the word-pair in which the two words are related in the same way as the two words in the following word-pair.

Diabetes: Disease

(a) Office : Employee
(b) Summer : Season
(c) Bottle : Water
(d) Crop : Farmer

Q45. Three of the following four letter-clusters are alike in a certain way and one is different. Select the odd one.

(a) AEIM
(b) SVZD
(c) RVZD
(d) CGKO

Q46. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

No plastic is iron.

All steel is iron.

Conclusions:

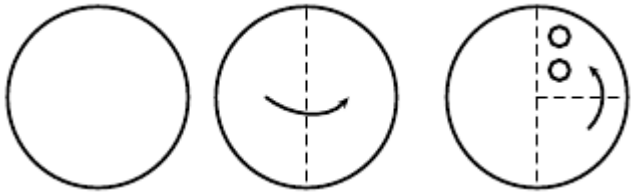
I. Some plastic is steel.

II. Some iron is steel.

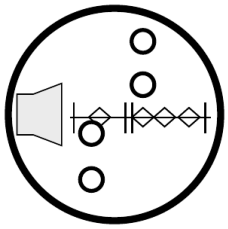
III. No steel is plastic.

(a) Only conclusion I and III follow.
(b) Only conclusion II and III follow
(c) Only conclusion I and II follow.
(d) Only conclusion II follow

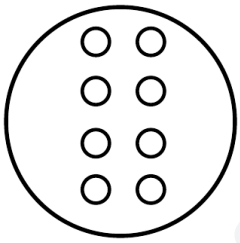
Q47. The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded?



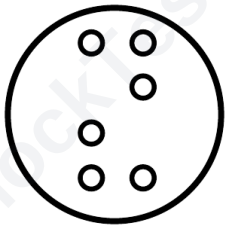
(a)



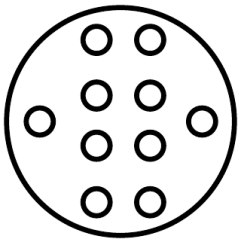
(b)



(c)



(d)



Q48. In a certain code, 'sky is blue' is written as '815'; 'blue and red' is written as '725'; 'Ram likes red' is coded as '203'; 'Sita and Ram' are written as '379'. What will be the code for 'Ram likes blue'?

(a) 257
(b) 512
(c) 573
(d) 503

Q49. Select the options figure which contains figure X embedded in it as its part. (Rotation is not allowed)

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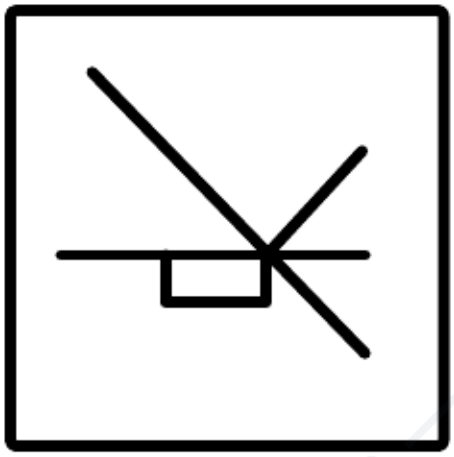
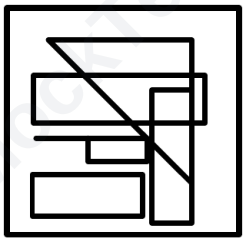
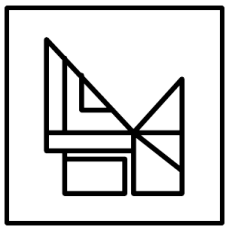


Figure X

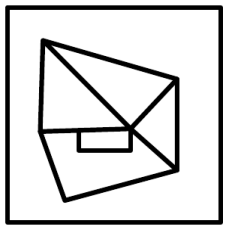
(a)



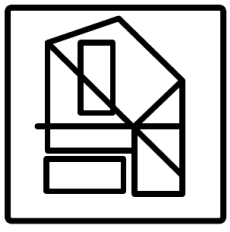
(b)



(c)



(d)



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Q50. Pointing to the photograph of Amit, Gagan, said, 'His sister's mother's husband is my daughter's mother's husband's father. 'How is Amit related to Gagan?

(a) Nephew
(b) Father
(c) Maternal uncle
(d) Brother

QUANTITATIVE APTITUDE

Q51. The area of an isosceles right angled triangle is 121 cm². Find its hypotenuse.

(a) 23 cm
(b) 20 cm
(c) 22 cm
(d) 21 cm

Q52. The distance between the centres of two equal circle each of radius 4 cm is 17 cm. The length of a transverse tangent is:

(a) 14 cm
(b) 16 cm
(c) 19 cm
(d) 15 cm

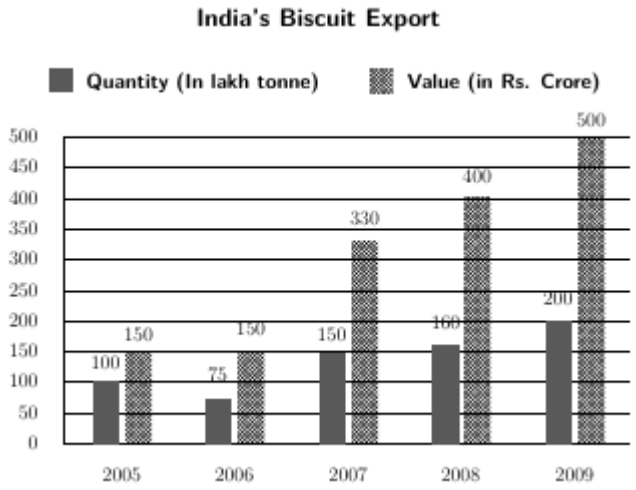
Q53. A car covered 150 km in 5 hours. If it travels at one-third its usual speed, then how much more time will it take to cover the same distance?

(a) 12 hours
(b) 14 hours
(c) 10 hours
(d) 8 hours

Q54. The printed price on a book is Rs. 150. If it is sold after two successive discounts of 30% and 40%, then find its selling price.

(a) Rs. 63
(b) Rs. 64
(c) Rs. 66
(d) Rs. 65

Q55. The given graph shows the biscuit export of India over a period of five years. Study the graph and answer the question that follow.



In which two years was the value per tonne equal?

(a) 2006 and 2007

(b) 2008 and 2009
(c) 2007 and 2008
(d) 2005 and 2006

Q56. If 2cot θ = 3, then (√13 cos θ - 3tan θ)/(3tan θ + √13 sin θ) is:

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

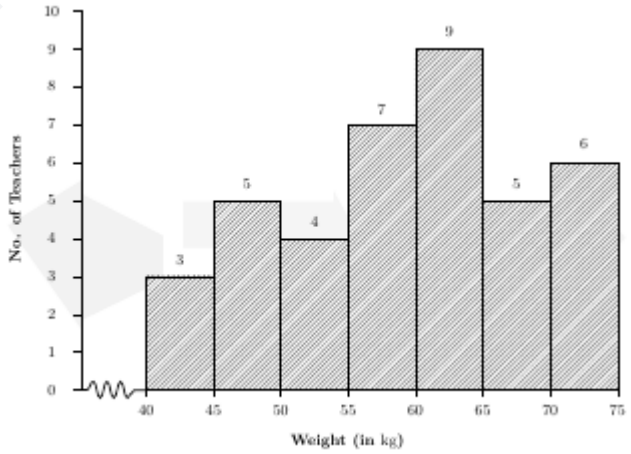
Q57. If x^4 + 1/(x^4) = 14159, then the value of x + 1/x is:

(a) 11
(b) 12
(c) 9
(d) 10

Q58. The three medians AX, BY and CZ of Δ ABC intersect at point L. If the area of Δ ABC is 30 cm², then the area of the quardrilateral BXLZ is:

(a) 10 cm²
(b) 12 cm²
(c) 16 cm²
(d) 14 cm²

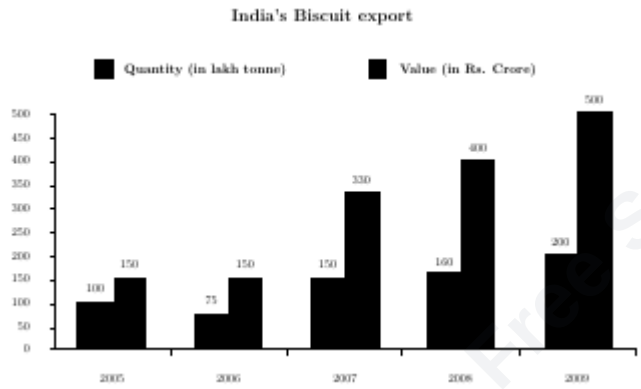
Q59. The given bar-graph represents the number of teachers in different weight groups. Study the graph and answer the question that follows.



In which of the following weight groups is the number of teachers the maximum?

(a) 45 - 50
(b) 60 - 65
(c) 65 - 70
(d) 40 - 45

Q60. The given graph shows the biscuit exports of India over a period of five years. Study the graph and answer the question that follows.



In which year, the percentage increase in exports was maximum from its preceding year:

(a) 2007
(b) 2006
(c) 2009
(d) 2008

Q61. If X = tan40°, then the value of 2tan50º will be:

(a) 2/X
(b) 2X
(c) 1/X
(d) 1/2X

Q62. In a question on division,the divisor is 6 times the quotient and 3 times the remainder. If the remainder is 40, then find the dividend.

(a) 2445
(b) 2440
(c) 2455
(d) 2450

Q63. Two circles of radii 20 cm and 5 cm, respectively, touch each other externally at the point P, AB is the direct common tangent of those two circles of centres R and S, respectively. The length of AB is equal to:

(a) 10 cm
(b) 5 cm
(c) 15 cm
(d) 20 cm

Q64. Kamal and Anil can dig a pond in 8 days and 14 days, respectively. If the total wages of digging is Rs. 4,400 then how much money will Anil earn?

(a) Rs. 1,400
(b) Rs. 1,600
(c) Rs. 1,500
(d) Rs. 1,300

Q65. If L is the circumcentre of ΔXYZ and angle X is 40º, then the value of angle YZL is:

(a) 50º
(b) 60º
(c) 40º
(d) 70º

Q66. Simplify the expression 25 - [16 - {14 - (18 - 8 + 3)}].

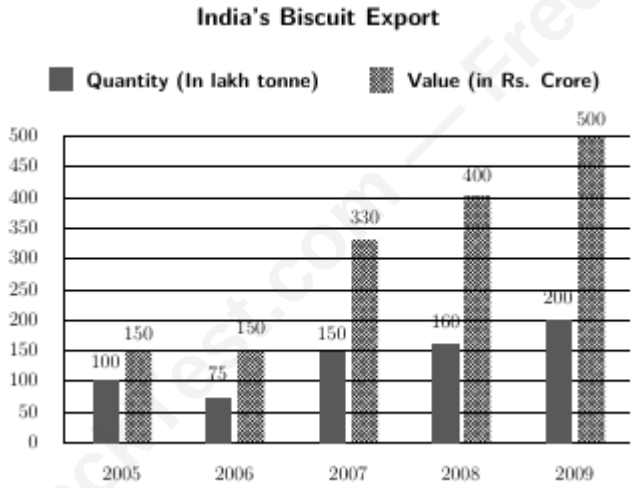
(a) 16
(b) 15
(c) 17
(d) 14

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Q67. If a - b = 18 and $a^3 - b^3 = 324$, then find ab.

(a) 105
(b) -102
(c) -104
(d) 103

Q68. The given graph shows the biscuit export of India over a period of five years. study the graph and answer the question that follow.



What was the percentage drop in the export quantity from 2005 to 2006?

(a) 75%
(b) 100%
(c) 50%
(d) 25%

Q69. A man sold his bike for Rs. 25,000 at 25% profit. At what price would it he have sold if he had incurred a loss of 15%?

(a) Rs. 19,000
(b) Rs. 17,000
(c) Rs. 16,000
(d) Rs. 18,000

Q70. The average of 40 numbers is 36. The average of the first 25 numbers is 31 and the average of last 16 numbers is 43. Find the 25^(th) number.

(a) 21
(b) 23
(c) 24
(d) 22

Q71. A woman earns Rs. 1,000/ day. After some weeks, she earns Rs. 1,160/ day. By how much percentage did her earnings increase?

(a) 18%
(b) 16%
(c) 17%
(d) 15%

Q72. If $2x = \sin\theta$ and $2/x = \cos\theta$, then the value of $4(x^2 + 1/(x^2))$ is:

(a) 1
(b) 0
(c) 2
(d) 4

Q73. The area of the quadrant of a circle whose circumference is 22 cm, will be;

(a) 3.5 cm²
(b) 38.5 cm²
(c) 10 cm²
(d) 9.625 cm²

Q74. How much will be decreased to each terms of raio 16 : 19, so that it will be 7 : 6?

(a) 36
(b) 35
(c) 34
(d) 37

Q75. Suresh lent out a sum of money to Rakesh for 5 years at simple interest. At the end of 5 years, Rakesh paid 9/8 of the sum to suresh to clear out the amount. Find the rate of simple interest per annum.

(a) 3.5% p. a.
(b) 2.5% p. a.
(c) 3% p. a.
(d) 2% p. a.

GENERAL AWARENESS

Q76. When was the Rovers Cup started ?

(a) 1981
(b) 1952
(c) 1931
(d) 1891

Q77. Which film won the Golden Globe Awards 2020 for Best Picture-Drama ?

(a) The Irishman
(b) Joker
(c) 1917
(d) Marriage Story

Q78. Lavani is a folk music of which state?

(a) Karnataka
(b) Odisha
(c) Kerala
(d) Maharashtra

Q79. Which of the following kingdom consists of prokaryotic cells ?

(a) Animalia
(b) Protista
(c) Fungi
(d) Monera

Q80. Who won the Sahitya Akademi Award 2019 in Hindi ?

(a) Chitra Mudgal
(b) Nand Kishore Acharya
(c) Nasira Sharma
(d) Ramesh Kunthal Megh

Q81. Which of the following is one of the sacred books of Buddhism ?

(a) Torah
(b) The Avesta
(c) Kalpa Sutra

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(d) Tripitaka

Q82. The National Bank for Agriculture and Rural Development (NABARD) was established in:

(a) 1982
(b) 1991
(c) 1987
(d) 1975

Q83. Which function key is used for opening help ?

(a) F1
(b) F2
(c) F4
(d) F3

Q84. How many people were awarded Padma Vibhushan in 2019 ?

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

Q85. Lipulekh Pass is in which state of India

(a) Assam
(b) Himachal Pradesh
(c) Uttarakhand
(d) Jammu and Kashmir

Q86. GST was introduced by which amendment act of the constitution?

(a) 106
(b) 101
(c) 102
(d) 107

Q87. When was WhatsApp incorporated?

(a) 2008
(b) 2007
(c) 2010
(d) 2009

Q88. Who is/was the 13^(th) President of India ?

(a) Ram Nath Kovind
(b) Pratibha Patil
(c) Pranab Mukherjee
(d) APJ Abdul Kalam

Q89. Salsette Island is situated in which state of India ?

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

Q90. In Tibet, the Brahamaputra river is known as:

(a) Tsangpo
(b) Debung
(c) Lohit
(d) Dihang

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Q91. Which of the following countries was the runner up in the 2019 ICC Cricket World cup ?

(a) England
(b) India
(c) New Zealand
(d) Australia

Q92. How many Lok Sabha constituencies are there in Rajasthan ?

(a) 25
(b) 28
(c) 30
(d) 20

Q93. Where is the Dudhsagar waterfalls located ?

(a) Maharashtra
(b) Kerala
(c) Goa
(d) Karnataka

Q94. What was the theme of the International Yoga Day 2019 ?

(a) Yoga for Climate Action
(b) Yoga for Peace
(c) Connect the Youth
(d) Yoga for Health

Q95. Shore temple is situated in which state of India ?

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

Q96. Which state has launched the Cyber Safe Woman Campaign in January 2020 ?

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

Q97. What did Wilhelm Conrad Roentgen discover ?

(a) Conservation of electric charge
(b) Electric bulb
(c) X-Rays
(d) Thermodynamics

Q98. Vivekananda Rock Memorial is in which state of India ?

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

Q99. What is the atomic weight of Lithium ?

(a) 6.941 amu, g/mol
(b) 9.012 amu, g/mol
(c) 4.003 amu, g/mol
(d) 10.811 amu, g/mol

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Q100. Jitu Rai is associated with which sport ?

(a) Wrestling
(b) Shooting
(c) Weight lifting
(d) Boxing

ANSWER KEY

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

SOLUTIONS

Q1. Answer: (b) Wasting one's time for things that have already been satisfactorily done

The solution is in Hindi. Read it online.

Q2. Answer: (a) Nakul asked her how she knew that Rahul had told that to him.

The correct answer is 'Nakul asked her how she knew that Rahul had told that to him.'

Key Points

• The given sentence is in Direct Speech. As per the question we have to change it into Indirect Speech.

• The process of transformation as follows:

• 'Asked' will not change because the given sentence is an 'Interrogative sentence'.

• 'How' will be used as a conjunction because we know that in an interrogative sentence with a question word the question word itself is used as a conjunction.

• 'You' will be changed into 'she' because second-person pronouns are changed according to the reporting verb of the sentence in 'direct to indirect' transformation.

• We know that in the 'direct to indirect' transformation 'First form' of the verb is changed into 'Second form' of the verb.

• 'Has told' will be changed into 'Had told'.

• Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

Correct Sentence: Nakul asked her how she knew that Rahul had told that to him.

Additional Information

• Transformation of Imperative Sentence:

• 'Orders', 'Command', 'Request', 'Advice' are given in these kinds of sentences.

• Reporting Verb is changed into 'ordered, advised, requested, commanded, beg, forbade, suggested, proposed, assured, asked, reminded, warned, agreed, refused, promised', etc.

• Inverted Commas will be removed. And conjunction 'to/not to' will be used.

• Example:

• He said, "John, please bring me my towel." (Direct Speech)

• He requested John to bring him his towel. (Indirect Speech)

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Q3. Answer: (a) Upset

The correct answer is 'Upset'.

Key Points

• The most appropriate antonym of the given word 'Tame' is 'Upset'.

• Let's look at the meaning and examples of the given words:

• | Words | Meaning | Example |

Tame	**to control something dangerous or powerful; docile; gentle**	**He'll need to tame his temper if he wants to succeed.**
Upset	to make someone worried, unhappy, or angry	It still upsets him when he thinks about the accident.
Restrain	to control the actions or behavior of someone by force, especially in order to stop them from doing something, or to limit the growth or force of something	When he started fighting, it took four police officers to restrain him.
Sanctify	to make something socially or officially acceptable	They were spiritual agents with a spiritual goal and were morally sanctified.
Control	to order, limit, or rule something, or someone's actions or behavior	You're going to have to learn to control your temper.

• Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

Q4. Answer: (a) Damage

The solution is in Hindi. Read it online.

Q5. Answer: (b) happens

The correct answer is 'happens'.

Key Points

• The given passage is about 'Forest Fires'.

• The most appropriate option for blank no 1 is 'happens' because it means '(of a situation or an event) to have existence or come into existence'.

• Example: Anything could happen in the next half hour.

• All the other options cannot be used in the given fill in the blank because of their different meaning.

• Therefore, as per the points mentioned above, we find that the correct answer is Option 2.

Correct Sentence: "Forest fire always happens by one of two reasons-naturally caused or human-caused"

Additional Information

• Let's look at the meaning and examples of the other option:

• | Words/Phrase | Meaning | Example |

Take-up	**how many people start to use or accept service, or sometimes a product, that has become available to them**	**We are calling for government action to improve the take-up of state benefits.**
Cause	the reason why something, especially something bad, happens	The police are still trying to establish the cause of the fire.
Create	to make something new, or invent something	The Bible says that God created the world.

Q6. Answer: (a) caused

The correct answer is 'caused'.

Key Points

• The given passage is about 'Forest Fires'.

• The most appropriate word to fill in the blank is 'caused'.

• It means 'the reason why something, especially something bad, happens'.

• Example: The difficult driving conditions caused several accidents.

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• In the given sentence fill in the blank, The reason behind the natural fire is usually lightning.
• Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

Correct Sentence: "Natural fire is generally caused by lightning..."
Additional Information
• Let's look at the meaning and examples of the other words given in the Option:
• | Words | Meaning | Example |

Reasoned	**If an argument is (well) reasoned, it is clear and carefully considered**	**He offered reasoned responses to our questions.**
Begun	to start to happen or exist	The bridge was begun five years ago and the estimated cost has already doubled.
Troubled	having problems or difficulties	The survival package involves selling off the unprofitable parts of the troubled company.

Q7. Answer: (c) contributed

The correct answer is 'contributed'.
Key Points
• The given passage is about 'Forest Fires'.
• The most appropriate word for the given fill in the blank is 'contributed'.
• It means 'to be one of the reasons why something happens'.
• Example: Analysts agree that subprime loans contributed to the recession.
• Therefore, as per the points mentioned above, we find that the correct answer is Option 3.

Correct Sentence: "a very small percentage contributed by spontaneous combustion of dry fuel such as sawdust and leaves..."
Additional Information
• Let's look at the meaning and examples of the other words given in the option:
• | Words | Meaning | Example |

Achieved	**to succeed in finishing something or reaching an aim, especially after a lot of work or effort**	**The government's training policy, he claimed, was achieving its objectives.**
Gathered	to collect several things, often from different places or people	We gathered blueberries from the bushes.
Attained	to reach or succeed in getting something	India attained independence in 1947, after decades of struggle.

Q8. Answer: (d) On the other hand

The correct answer is 'On the other hand'.
Key Points
• The given passage is about 'Forest Fires'.
• The most appropriate option for the given fill in the blank is 'On the other hand'.
• It is 'used when you are comparing two different facts or two opposite ways of thinking about a situation'.
• Example: On the one hand I'd like a job that pays more, but on the other hand I enjoy the work I'm doing at the moment.
• Therefore, as per the points mentioned above, we find that the correct answer is Option 4.

Correct Sentence: "On the other hand, human-caused fire can happen..."

Q9. Answer: (a) due to

The correct answer is 'due to'.
Key Points
• The given passage is about 'Forest Fire'.
• The most appropriate option for the given fill in the blank is 'due to'.

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• It means 'expected to happen, arrive, etc. at a particular time'.
• Example: The next meeting is due to be held in three months' time.
• Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

Correct Sentence: "On the other hand, human-caused fire can happen due to any number of reasons."

Q10. Answer: (a) for its behaviour

The correct answer is 'for its behaviour'.

Key Points

• The given sentence is grammatically incorrect.
• Here, 'for their behaviour' should be used instead of 'for its behaviour'.
• Here, 'their' should be used instead of 'its'.
• We know that we don't use "its" as a possessive pronoun usually for living things.
• In the given sentence possessive case should be used for the 'Cats' so 'their' should be used because 'Cats' are living things.
• 'Their' is a possessive determiner which means 'belonging to them'.
• Example: Their house is very small, isn't it?
• In the given question 'Cats' is the main subject. It is plural and refers to the whole class of cats.
• Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

Correct Sentence: Cats cannot be blamed for their behaviour to their masters as they are tamed so.

Additional Information

• Some verbs are proceeded by reflexive Pronoun:
• Average, Revenge, Present, Absent, Pride, Available, Acquit, Reconcile, Apply, etc.
• Example: The IAF's Canberra bomber squadrons too acquitted themselves better than their PAF counterparts with their daring strikes deep inside Pakistani territory.
• If we use an intransitive verb in a sentence then there is no need for a Direct object/ Reflexive Pronoun/ Verbs which we usually do for ourselves. Such kinds of 'Verbs' are:
• Complain, Shave, Shower, Keep, Stop, Behave, Pit, Remember, Down, etc.
• Example: Justin always shaves on Sunday.

Q11. Answer: (a) All the programmes can be performed perfectly well by this android.

The correct answer is 'All the programmes can be performed perfectly well by this android.'

Key Points

• The given sentence is in the Active Voice. As per the question we have to change it into Passive Voice.
• The process of transformation as follows:
• The subject of the given sentence is 'The android'.
• The object of the given sentence is 'All the programmes'.
• The structure of the transformation of Modals:
• Subject+Modals+V1+Object. (Active Voice)
• Subject(objective case)+Modals+be+V3+by+object(subjective case). (Passive Voice)
• Example:
• Animals cannot make tools. (Active Voice)
• Tools cannot be made by animals. (Passive Voice)
• We know that in Active To Passive transformation 'can perform' will be changed into 'can be performed'.
• Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

Correct Sentence: All the programmes can be performed perfectly well by this android.

Additional Information

Transformation of Infinitives: Structure of it as follows:

• Subject+is/am/are/was/were/has/have/had+to+V1+Object.
• Subject(Objective case)+is/am/are/was/were/has/have/had+to+be+V3+by+object(subjective case).
• Example:
• Your child is to learn chess. (Active Voice)

• Chess is to be learnt by your child. (Passive Voice)

Important Points

We do not change the tense of a verb when we convert a sentence from the active to the passive voice or vice versa.

Q12. Answer: (c) ADBC

The correct answer is 'ADBC'.

Key Points

• The given sentence is an example of a Sentence Jumble.

• The first statement of a sentence jumbled question is usually an independent general statement, a noun, a universal fact, the starting of an incident, or it starts with 'most' or 'once'.

• Here, in the given question Part A will be the first sentence because it is the starting of an incident.

• Part D will be the next sentence because Part A talks about the pilgrimage of the person. And Part D tells us where he took shelter.

• Part B will be the next because it describes the behavior of Villagers.

• Lastly, Part C will be used because Part C tells us how Villagers treated him.

• Therefore, as per the points mentioned above, we find that the correct answer is Option 3.

Correct Sentence: He was on a pilgrimage to Jerusalem. One night, he took rest in a village unfamiliar on the way. The villagers were kind though doubtful. They offered him some food to eat and a room to stay.

Q13. Answer: (d) many a time

The correct answer is 'many a time'.

Key Points

• The given sentence is grammatically incorrect.

• The idiom 'many a time' means 'many times'.

• Example: I've told you many a time not to ride your bike on the pavement.

• Therefore, as per the points mentioned above, we find that the correct answer is Option 4.

Correct Sentence: She is tender-hearted by nature and I have found her eyes moist many a time over the sad face of any children.

Mistake Points

• We tend to go for Option 3 but it would be wrong because "A" is a singular indefinite article, and "times" is plural.

• The two do not mix, therefore, it is wrong. "Many a times" may be a colloquialism, but it is still incorrect.

• "Many a time" and "many times" mean the same thing, but "many a time" is a more formal or old-fashioned way to say "many times".

• Therefore, the correct answer is Option 4.

Q14. Answer: (c) Compromize

The correct answer is 'Compromize'.

Key Points

• In the given options 'Compromize' is wrongly spelt.

• Its correct spelling is 'Compromise'.

• Let's look at the meaning and examples of the given Options:

• | Words | Meaning | Example |

Compromise	**an agreement in an argument in which the people involved reduce their demands or change their opinion in order to agree**	**It is hoped that a compromise will be reached in today's talks.**
Sympathize	to understand and care about someone's problems	I know what it's like to have migraines, so I really sympathize with you.
Scrutinize	to examine something very carefully in order to discover information	He scrutinized the men's faces carefully/closely, trying to work out who was lying.
Colonize	to send people to live in and govern another country	Peru was colonized by the Spanish in the 16th century.

Q15. Answer: (b) has no relevance

The correct answer is 'has no relevance'.

Key Points

• The given sentence is grammatically incorrect.
• Here, 'have no relevance' should be used instead of 'has no relevance'.
• We use 'some' with 'of' before 'the', 'demonstratives (this, that)', 'pronouns (you, us)', or possessives (my, your).
• We use "some of" to refer to a part of a whole.
• Example: It was great to meet some of her friends and colleagues.
• Here, in the given question the main subject is 'the issues'. And it is in the plural form.
• Hence, a plural auxiliary verb 'have' should be used instead of 'has'.
• Therefore, as per the points mentioned above, we find that the correct answer is Option 2.

Correct Sentence: Some of the issues discussed in the media nowadays have no relevance to the nation-building process.

Additional Information

• Amount of/ quantity of are used with an uncountable noun. They are used as the subject of the sentence.
• And a singular verb is used with them.
• Example:
• The amount of sugar are not sufficient.
• The amount of sugar is not sufficient.

Q16. Answer: (c) Contemporary

The correct answer is 'Contemporary'.

Key Points

• The most appropriate one-word for the given group of words is 'Contemporary'.
• Let's look at the meaning and examples of the words given in the Option:
• | One-word | Meaning | Example |

Contemporary	**existing or happening now**	**Although the play was written hundreds of years ago, it still has a contemporary (= modern) feel to it.**
Partner	a person or organization you are closely involved with in some way	He gave up his job as a police officer after his partner was killed.
Collaborator	a person who works with an enemy who has taken control of their country	Even an expert can benefit from a collaborator to help eliminate mistakes.
Confidant	a person you trust and share your feelings and secrets with	Her brother is her closest confidant.

Q17. Answer: (c) Refreshing

The solution is in Hindi. Read it online.

Q18. Answer: (a) as high as

The correct answer is 'as high as'.

Key Points

• The most appropriate option to substitute the underlined segment in the given sentence is 'as high as'.
• Here, in the given question 'as high as a kite' is an idiom.
• It means 'to behave in a silly or exciting way because you have taken drugs or drunk a lot of alcohol'.
• Example: I tried to talk to her after the party, but she was as high as a kite.
• Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

Correct Sentence: The selection to the police department raised him as high as a kite.

Additional Information

• Let's look at some idioms:
• | Idiom | Meaning | Example |

be asking for it/trouble	**to be behaving stupidly in a way that is likely to cause problems for you**	**Drinking alcohol before driving is really asking for trouble.**
be at a loose end	to have nothing to do	If you find yourself at a loose end, you could always clean the bathroom.
be at odds	to disagree	They're at odds over the funding of the project.
be at the bottom of sth	to be the real reason for or the cause of something	The desire for money is at the bottom of much of the world's violence.

Q19. Answer: (a) Falling deeply in love with someone

The solution is in Hindi. Read it online.

Q20. Answer: (d) Concede

The correct answer is 'Concede'.

Key Points

• The most appropriate antonym of the given word 'Dispute' is 'Concede'.

• Let's look at the meaning and examples of the words given in the Option:

• | Words | Meaning | Example |

Dispute	**an argument or disagreement, especially an official one between, for example, workers and employers or two countries with a common border**	**They have been unable to resolve the dispute over working conditions.**
Concede	to admit, often unwillingly, that something is true	The government has conceded (that) the new tax policy has been a disaster.
Strengthen	to make something stronger or more effective, or to become stronger or more effective	They have been strengthening their border defenses in preparation for war.
Quarrel	an angry disagreement between two or more people or groups	They had a bitter quarrel over some money three years ago and they haven't spoken to each other since.
Impute	to say that someone is responsible for something that has happened, especially something bad, or that something is the cause of something else	For purposes of the company's violations, the conduct of its officials and employees may be imputed to the firm.

Q21. Answer: (c) Dilemma

The correct answer is 'Dilemma'.

Key Points

• The most appropriate one-word substitution for the given group of words is 'Dilemma'.

• Let's look at the meaning and examples of the given words:

• | One-words | Meaning | Example |

Dilemma	**a situation in which a difficult choice has to be made between two different things you could do**	**The president is clearly in a dilemma about how to tackle the crisis.**
Sophistication	the quality of being sophisticated	Her sophistication is evident from the way she dresses.
Instability	the uncertainty caused by the possibility of a sudden change in the present situation	The building's instability makes it extremely dangerous.
Complication	something that makes a situation more difficult, or the act of doing this	If any complications arise, let me know and I'll help.

• Therefore, as per the points mentioned above, we find that the correct answer is Option 3.

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Q22. Answer: (b) attention

The correct answer is 'attention'.

Key Points

• The most appropriate word to fill in the blank is 'attention'.

• It means 'notice, thought, or interest'.

• Example: After an hour, my attention started to wander (= I stopped taking notice).

• All the other options are incorrect contextually in the given sentence because of their different meaning.

• Therefore, as per the points mentioned above, we find that the correct answer is Option 2.

Correct Sentence: Children need special care and attention from the side of their parents for making them emotionally strong.

Additional Information

• Let's look at the meaning and examples of the other words given in the option:

• | Words | Meaning | Example |

Suspicion	**a belief or idea that something may be true**	**I have a suspicion that he only asked me out because my brother persuaded him to.**
Reflection	the image of something in a mirror or on any reflective surface	He put silver foil around the fire to increase heat reflection.
Compromise	an agreement in an argument in which the people involved reduce their demands or change their opinion in order to agree	It is hoped that a compromise will be reached in today's talks.

Q23. Answer: (a) DBCA

The correct answer is 'DBCA'.

Key Points

• The given sentence is an example of a Sentence Jumble.

• The first statement of a sentence jumbled question is usually an independent general statement, a noun, a universal fact, the starting of an incident, or it starts with 'most' or 'once'.

• Here, in the given question the first sentence will be 'Part D'. Because Part D is the starting of an incident that is 'arrival of someone at the outskirts of a city'.

• Part B will be the next sentence because after arrival 'He' took a 'taxi driver'.

• Part C will be the next sentence because Part B is connected with Part C. It tells us what that person told 'Driver'.

• And lastly, Part A will be the last sentence because it tells how the driver reacted.

• Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

Correct Sentence: He arrived on the outskirts of a city. He asked a taxi driver to take him to the shopping mall. The driver had a cloudy look drove off without taking him. The driver had a cloudy look drove off without taking him.

Q24. Answer: (c) Accomodate

The correct answer is 'Accomodate'.

Key Points

• In the given question 'Accomodate' is incorrectly spelt.

• Its correct spelling is 'Accommodate'.

• Let's look at the meaning and examples of the other words given in the Option:

• | Words | Meaning | Example |

Accommodate	**to provide with a place to live or to be stored in**	**New students may be accommodated in halls of residence.**
Tolerate	to accept behavior and beliefs that are different from your own, although you might not agree with or approve of them	I will not tolerate that kind of behaviour in my class.
Temperate	not extreme; within a middle range	The climate here is pretty temperate.

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Promulgate	to announce something publicly, especially a new law	The new law was finally promulgated in the autumn of last year.

Q25. Answer: (a) prejudice

The correct answer is 'prejudice'.

Key Points

• The most appropriate word to fill in the blank is 'prejudice'.

• It means 'an unfair and unreasonable opinion or feeling, especially when formed without enough thought or knowledge'.

• Example: Laws against racial prejudice must be strictly enforced.

• All the other words cannot be used in the given fill in the blank because of their different meaning.

• Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

Correct Sentence: Unnecessary suspicion and lack of trust against the others are caused by prejudice.

Additional Information

• Let's look at the meaning and examples of the other words given in the Option:

• | Word | Meaning | Example |

Contentment	**happiness and satisfaction, often because you have everything you need**	**His face wore a look of pure contentment.**
Impartiality	the fact of not supporting any of the sides involved in an argument	The state must ensure the independence and impartiality of the justice system.
Empathy	the ability to share someone else's feelings or experiences by imagining what it would be like to be in that person's situation	He loves children and has a certain empathy for them.

Q26. Answer: (a) South Africa

Given,

South Africa, Europe, Africa, North America

Here we see all of the above are continents except South Africa, which is a country in southern Africa.

Hence, the correct answer is South Africa.

Q27. Answer: (c) [figure]

Given,

The pattern followed here is, the lines in the circle are drawn alternatively horizontal and vertically. And the rectangle in the corner is moving in the clockwise direction.

Therefore The image in the place of the question mark (?) is

Hence, the correct answer is option 3).

Q28. Answer: (b) 2

Given,

The opposite faces are,

1	**3**	**6**
2	4	5

Here we see 2 is on the face opposite face showing 1.

Hence, the correct answer is 2.

Q29. Answer: (b) [figure]

Given,

In the mirror image, the top and bottom part of the image remains the same and the left and right parts of the image interchanges.

The mirror image is as follows,

Hence, the correct answer is option 2).

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Q30. Answer: (b) NPQSCEDFQS

Given,

'STRONG' is written as 'RTSUZBEGEG'.

The pattern followed here is,

Similarly,

Hence, the correct answer NPQSCEDFQS.

Q31. Answer: (c) Feet

Given,

Gloves : Hands : : Shoes : ?

The pattern followed here is, we wear gloves on hands and similarly shoes on feet.

Hence, the correct answer is Feet.

Q32. Answer: (c) (12, 21, 273)

Given,

(11, 17, 204)

The pattern followed here is,

(1^(st) Number × 2^(nd) Number) + 2^(nd) Number = 3^(rd) Number

(11 × 17) + 17 = 204

187 + 17 = 204

204 = 204

Similarly,

(12 × 21) + 21 = 273

252 + 21 = 273

273 = 273

Hence, '(12, 21, 273)' is the correct answer.

Q33. Answer: (a) 71

Given,

50, 49, 53, 44, 60, 35, ?

The pattern followed here is,

50 - 1 (1^2) = 49

49 + 4 (22) = 53

53 - 9 (32) = 44

44 + 16 (42) = 60

60 - 25 (52) = 35

35 + 36 (62) = 71

Hence, the correct answer is 71.

Q34. Answer: (d) 10

Given,

The number of triangles is,

Hence, the correct answer is 10.

Q35. Answer: (d) XZMZX

Given,

K_ _MKXZ_KX_MK_ZM

The pattern followed here is,

1) KXXMKXZMKXZMKKZM

2) KMZMKXZMKXZMKXZM

2) KXXMKXZMKXKMKXZM

4) KXZM/ KXZM/ KXZM/ KXZM

Here we see the fourth option has a particular pattern.

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Hence, the correct answer is XZMZX.

Q36. Answer: (d) (92, 90, 8)

Given,

(52, 48, 64)

The pattern followed here is,

52 - 48 = 4

$4^3 = 64$

Similarly,

92 - 90 = 2

$2^3 = 8$

Hence, the correct answer is (92, 90, 8).

Q37. Answer: (d) YP

Given, NR : MI :: BK : ?

The pattern followed here is,

Here we see the opposite letters of the first group is written in the second group.

Similarly,

The letter Y is opposite to the B and P is opposite to K.

Hence, the correct answer is YP.

Q38. Answer: (a) 5, 1, 4, 3, 2

Given,

1. Mount Abu
2. World
3. India
4. Rajasthan
5. Nakki Lake

Here the logical and meaning order is,

5. Nakki Lake
1. Mount Abu
4. Rajasthan
3. India
2. World

Hence, the correct answer is 5, 1, 4, 3, 2.

Q39. Answer: (b) 4

Given,

In a batch of 68 students, 23 students do not participate in any of the two games i.e. cricket and squash, 17 students participate in cricket only, 24 students participate in cricket and squash.

Total student = 68

Students do not participate in any of the two games = 23

Those who participated = 68 - 23 = 45

Students participate in cricket only = 17

Students participate in cricket and squash = 24

Students participated in Squash only = Those who participated - (Students participate in cricket only+ Students participate in cricket and squash)

= 45 - (17+24)

= 45 - 41 = 4

4 students participated in squash only.

Hence, the correct answer is 4.

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Q40. Answer: (a) 349

Given,

3 : 67 :: 6 : ?

The pattern followed here is,

3 : 67 → 4^3 = 64 +3 = 67

Similarly,

6 : ? → 7^3 = 343 + 6 = 349

Hence, '349' is the correct answer.

Q41. Answer: (a) × and + ; 15 and 25

Given,

16 + 8 × 25 - 15 ÷ 5 = 138

By options;

1) × and + ; 15 and 25

LHS = 16 × 8 + 15 - 25 ÷ 5

= 128 + 15 - 5

= 138 = RHS

Hence, the correct answer is × and + ; 15 and 25.

Q42. Answer: (c) 1415225132518

Given,

'WORKSHOP' is written as '231518111981516'.

The pattern followed here is,

We know,

Therefore

Similarly,

Hence, the correct answer is 1415225132518.

Q43. Answer: (b) [figure]

Given,

Infants, Males, Fathers

The Venn diagram is as follows,

Hence, the correct answer is option 2).

Q44. Answer: (b) Summer : Season

Given,

Diabetes: Disease

Here we see the relation here is Diabetes is a disease similarly, summer is a season.

Hence, the correct answer is Summer: Season.

Q45. Answer: (b) SVZD

Given,

AEIM, SVZD, RVZD, CGKO

The pattern followed here is,

Hence, the correct answer is SVZD.

Q46. Answer: (b) Only conclusion II and III follow

Given,

Statements:

No plastic is iron.

All steel is iron.

Conclusions:

I. Some plastic is steel.

II. Some iron is steel.

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III. No steel is plastic.

The least possible Venn diagram is as follows,

Conclusions:

I. Some plastic is steel → False (From Venn diagram we see no plastic is steel)

II. Some iron is steel → True (From Venn diagram we see some iron is steel)

III. No steel is plastic → True (From Venn diagram we see no plastic is steel)

Hence, the correct answer is Only conclusion II and III follow.

Q47. Answer: (b) [figure]

Given,

The paper when unfolded will look as follows,

Hence, the correct answer is option 2).

Q48. Answer: (d) 503

Given,

'sky is blue' is written as '815'; 'blue and red' is written as '725'; 'Ram likes red' is coded as '203'; 'Sita and Ram' are written as '379'.

The codes are as follows,

Therefore The 'Ram likes blue' is written as 305.

Hence, the correct answer is 503.

Q49. Answer: (d) [figure]

Given,

The above figure is embedded in the following figure,

Hence, the correct answer is option 4).

Q50. Answer: (d) Brother

Given,

Pointing to the photograph of Amit, Gagan, said, 'His sister's mother's husband is my daughter's mother's husband's father.

The family tree is as follows,

Here we see Amit is the brother of Gagan.

Hence, the correct answer is Brother.

Q51. Answer: (c) 22 cm

Given:

Area of isosceles right angled triangle = 121 cm^2

Formula used:

Area of triangle = 1/2 × base × height

According to Pythagoreans theorem

$(Hypotenuse)^2 = (Perpendicular)^2 + (Base)^2$

Calculation:

Let the base and height of the isosceles triangle be ‘x’

Area = 1/2 × base × height

=> 121 = 1/2 × x × x

=> $x^2 = 242$

Taking square root

=> $x = \sqrt{242}$

=> $x = 11\sqrt{2}$

Using Pythagoreans theorem

$(AC)^2 = (AB)^2 + (BC)^2$

=> $(AC)^2 = (11\sqrt{2})^2 + (11\sqrt{2})^2$

=> $(AC)^2 = 242 + 242$

=> $(AC)^2 = 484$

Taking square root

=> AC = √484
=> AC = 22 cm
Therefore The hypotenuse is 22cm.

Q52. Answer: (d) 15 cm

Given:
Radius of 1^(st) circle = 4 cm
Radius of 2^(nd) circle = 4 cm
Distance between the centres of two circles = 17 cm
Formula used:
(Length of transverse tangent)² = [(distance between the centres)² – (r1 + r2)²]
Where r1 and r2 are the radii of two circles.
Calculation:
Let the transverse tangent be PQ and distance between the centres be AB
Let r1 and r2 be the radii of the circles
According to the formula
=> $(PQ)^2 = (AB)^2 – (r1 + r2)^2$
=> $(PQ)^2 = (17)^2 – (4 + 4)^2$
=> $(PQ)^2 = 289 – 64$
=> $(PQ)^2 = 225$
=> PQ = √225
=> PQ = 15 cm
Therefore The length of a transverse tangent is 15 cm

Q53. Answer: (c) 10 hours

Given:
Distance covered by car = 150 km
Time taken by the car = 5 hours
Formula used:
Distance = Speed × Time
Calculation:
Speed of car = 150/5
=> Speed of car = 30 km/h
According to the question, if he travels at 1/3^(rd) of its usual speed then
=> Speed = 30/3 km/h
=> Speed = 10 km/h
=> Time taken to travel 150 km at reduced speed = 150/10 hours
=> Time taken to travel 150 km at reduced speed = 15 hours
=> Increase in time = (15 – 5) hours
=> Increase in time 10 hours
Therefore It will take 10 hours more to cover same distance if speed gets reduced to 1/3^(rd) its usual speed.
Shortcut Trick
As per the question,
Speed ratio = 3:1
Time ratio = 1:3
Given 1 unit = 5 hour so 3 unit = 15 hour
Increase in time = (15 – 5) hours = 10 hours

Q54. Answer: (a) Rs. 63

Given
Marked price of book = Rs. 150
1^(st) discount = 30%
2^(nd) discount = 40%

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Formula used:
Discount = Marked price – Selling price
Discount % = Discount/Marked price × 100
When 2 discounts are given,
Net discount = (D1 + D2 – D1D2/100)%
Where, D1 = Discount 1
D2 = Discount 2
Calculation:
Net discount = (D1 + D2 – D1D2/100)%
Net Discount = [30 + 40 – (30)(40)/100]%
=> Net Discount = (70 – 12)
=> Net Discount = 58%
Discount % = Discount/Marked price × 100
=> 58% = Discount/150 × 100
=> Discount = 58 × 150/100 = 87
Discount = Marked price – Selling price
=> 87 = 150 – Selling price
=> Selling Price = Rs. 63
Therefore Its selling price is Rs. 63
Shortcut Trick

Discount	fraction	MP	SP
30%	(-3/10)	10	7
40%	(-4/10)	10	6

=>Discount = 100 - 42 = 58
=> D% = (58/100) × 100 = 58%
as per the question,
Selling price = Marked price – Discount
SP = 150 - (150 × 58)/100 = 63

Q55. Answer: (b) 2008 and 2009

Given:

Year	Quantity	Value
2005	100	150
2006	75	150
2007	150	330
2008	160	400
2009	200	500

Calculation:
Value per tonne in 2005 = 150/100 = 1.5
Value per tonne in 2006 = 150/75 = 2
Value per tonne in 2007 = 330/150 = 2.2
Value per tonne in 2008 = 400/160 = 2.5
Value per tonne in 2009 = 500/200 = 2.5
Therefore Value per tonne is equal in 2008 and 2009

Q56. Answer: (b) 1/4

Given:
$2\cot\theta = 3$
Formula used:

Sinθ = P/H
Cosθ = B/H
Tanθ = P/B
Cotθ = B/P
H2 = P2 + B2
where P = Perpendicular
B = Base
H = Height
Calculation:
2cotθ = 3
=> cotθ = 3/2
on comparing with (Cotθ = B/P), we get
=> B = 3
=> P = 2
According to Pythagorean theorem
=> H² = P² + B²
=> H2 = 22 + 32
=> H = √13
=> Sinθ = 2/√13
=> Cosθ = 3/√13
=> Tanθ = 2/3
Putting all the above values in equation (√13 cos θ - 3tan θ)/(3tan θ + √13 sin θ)
=> (√13 (3/√13) - 3(2/3))/(3(2/3) + √13 (2/ √13))
=> (3 - 2)/(2 + 2) = 1/4
Therefore The value of (√13 cos θ - 3tan θ)/(3tan θ + √13 sin θ) is 1/4.

Q57. Answer: (a) 11

Given:
x^4 + 1/(x^4) = 14159
Formula used:
(a + b)² = a² + b² + 2ab
Calculation:
x^4 + 1/x^4 = 14159
Adding 2 on both sides,
=> x^4 + 1/x^4 + 2 = 14159 + 2
=> (x² + 1/x²)² = 14161
Taking square root both sides
=> (x² + 1/x²) = √(14161)
=> (x² + 1/x²) = 119
Adding 2 on both sides,
=> x² + 1/x² + 2 = 119 + 2
=> (x + 1/x)² = 121
Taking square root both sides
=> x + 1/x = √121
=> x + 1/x = 11
Therefore The value of x + 1/x is 11.

Q58. Answer: (a) 10 cm²

Given:
Area of ΔABC = 30 cm²
Formula used:
When three medians of Δ ABC intersect at point L

Area of ΔBLX = 1/6 × ΔABC

Calculation:

Area of ΔBLX = 1/6 × ΔABC

=> Area of ΔBLX = 1/6 × 30

=> Area of ΔBLX = 5 cm²

Area of BXLZ = 2 × ΔBLX

=> Area of BXLZ = 2 × 5

=> Area of BXLZ = 10 cm²

Therefore The area of the quadrilateral BXLZ is 10 cm²

Q59. Answer: (b) 60 - 65

Given:

Numbers of teachers in the age group of 40 - 45 = 3

Numbers of teachers in the age group of 45 - 50 = 5

Numbers of teachers in the age group of 50 - 55 = 4

Numbers of teachers in the age group of 55 - 60 = 7

Numbers of teachers in the age group of 60 - 65 = 9

Numbers of teachers in the age group of 65 - 70 = 5

Numbers of teachers in the age group of 70 - 75 = 6

Calculation:

We clearly see that,

Numbers of teachers in the age group of 60 - 65 = 9

Which is maximum teachers in this group.

Therefore The numbers of teachers in the age group of 60 -65 is 9 which is maximum.

Q60. Answer: (a) 2007

Given:

Year	Quantity	Value
2005	100	150
2006	75	150
2007	150	330
2008	160	400
2009	200	500

Calculation:

Decrease in exports in 2006 = 100 – 75 = 25

=> Percentage decrease = 25/100 × 100 = 25 %

Increase in exports in 2007 = 150 – 75 = 75

=> Percentage increase = 75/75 × 100 = 100 %

Increase in exports in 2008 = 160 – 150 = 10

=> Percentage increase = 10/150 × 100 = 6.66 %

Increase in exports in 2009 = 200 – 160 = 40

=> Percentage increase = 40/160 × 100 = 25 %

Therefore Percentage increase was maximum in year 2007.

Q61. Answer: (a) 2/X

Given:

X = tan40°

Formula used:

tan (90° – θ) = cot θ

cot θ = 1/tan θ

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Calculation:
2tan50º
=> 2tan(90° – 40°)
=> 2 × cot 40°
=> 2 × 1/tan 40°
=> 2 × (1/X) = 2/X
Therefore The value of 2tan50º is 2/X.

Q62. Answer: (b) 2440

Given:
The divisor is 6 times the quotient and 3 times the reminder
The reminder = 40
Formula used:
Dividend = (Divisor × Quotient) + Reminder
Calculation:
Divisor = 3 × Reminder
=> Divisor = 3 × 40 = 120
Quotient = (1/6) × Divisor
=> Quotient = (1/6) × 120 = 20
Dividend = (Divisor × Quotient) + Reminder
=> 120 × 20 + 40
=> 2400 + 40
=> 2440
Therefore The dividend is 2440.

Q63. Answer: (d) 20 cm

Given:
Radii of two circles = 20 cm and 5 cm
AB is the direct common tangent
Formula used:
When two circles touches at a point externally
Direct common tangent = 2√(r1 r2)
r1 = Radius of 1^(st) circle
r2= Radius of 2^(nd) circle
Calculation:
Direct common tangent = 2√(r1 r2)
=> 2√(20× 5)
=> 2√100
=> 2 × 10
=> 20
=> AB = 20 cm
Therefore Length of AB is 20 cm.

Q64. Answer: (b) Rs. 1,600

Given:
Days Kamal takes to dig a pond = 8 days
Days Anil takes to dig a pond = 14 days
The expense of digging a pond = Rs. 4,400
Formula used:
Wages = Efficiency × Time period
Calculation:
Taking L.C.M of 8 and 14
=> L.C.M of 8 and 14 = 56

=> Efficiency of Kamal = (56/8) = 7
=> Efficiency of Anil = (56/14) = 4
As both worked for the equal time period
Wages ratio = 7 : 4
=> Total wages in terms of ratio = 7 + 4 = 11 units
Actual wages = Rs. 4,400
=> Money earned by Anil = (4400/11) × 4 = 1,600
Therefore The money earned by Anil is Rs. 1,600.

Q65. Answer: (a) 50º

Given:
In ΔXYZ
L is the Circumcentre
angle X = 40°
Concept Used:
(i) Circumcentre is the point of intersection of the Perpendicular Bisectors of the sides of a triangle.
(ii) The angle subtended at the center is always double the angle subtended at the remaining arc.
Calculation:
Let L is the Circumcentre, then LY and LZ are circumradii.
then angle L = 2angle X (By circumcentre property)
=> angle YLZ = 2angle YXZ
=> angle YLZ = 2 × 40°
=> angle YLZ = 80°
In ΔLYZ
LY = LZ (radius of the circle)
If two sides are equal then their corresponding angles are also equal
=> angle LYZ = angle LZY
angle ZYL + angle YZL + angle YLZ = 180°
=> 2angle YZL = 180° - 80° = 100°
=> angle YZL = 50°
Therefore The value of angle YZL is 50°.

Q66. Answer: (a) 16

Given:
25 - [16 - {14 - (18 - 8 + 3)}]
Concept used:
Follow BODMAS rule to solve this question, as per the order given below,
Calculation:
25 - [16 - {14 - (18 - 8 + 3)}]
=> 25 - [16 - {14 - (18 - 11)}]
=> 25 - [16 - {14 - 7}]
=> 25 - [16 - 7]
=> 25 - 9
=> 16
Therefore The value of 25 - [16 - {14 - (18 - 8 + 3)}] is 16.

Q67. Answer: (b) -102

Given:
a - b = 18
a3 - b3 = 324
Formula used:
x3 - y3 = (x - y)[(x - y)2 + 3xy]
Calculation:

a3 - b3 = (a - b)[(a - b)² + 3ab]
=> 18[182 + 3ab] = 324
=> 18[324 + 3ab] = 324
=> 5832 + 54ab = 324
=> 54ab = 324 – 5832
=> 54ab = – 5508
=> ab = – 102
Therefore The value of ab is – 102
Shortcut Trick
a3 - b3 = (a - b)[(a - b)2 + 3ab]
=> 18[182 + 3ab] = 324
=> 182 + 3ab = 324/18
=> 324 + 3ab = 18
=> 3ab = -306
=> ab = -102

Q68. Answer: (d) 25%

Calculation:
Export in 2005 = 100 (lakh)
Export in 2006 = 75 (lakh)
=> Decreased in export = 100 – 75 = 25
=> Percentage drop in the export = (25/100) × 100
=> 25
Therefore Required answer is 25%

Q69. Answer: (b) Rs. 17,000

Given:
Selling price or the bike = Rs. 25000
Profit percentage = 25%
Formula used:
Profit % = {(SP – CP)/CP} × 100
Loss % = {(CP – SP)CP} × 100
CP = Cost price
SP = Selling price
Calculation:
25% profit = 5/4
15% loss = 17/20
According to the question,
Selling price should be (25000 × 4/5 × 17/20)
=> 20000 × 17/20
=> 1000 × 17
=> 17000
=> Selling price = Rs. 17000
Therefore Required selling price is Rs. 17000
25% profit = 125%
15% loss = 85%
Ratio of selling price 125 : 85
25 : 17
=> 25 → 25000
=> 1 → 1000
=> 17 → 17000
Therefore Required selling price is Rs. 17000

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Q70. Answer: (b) 23

Given:

An average of 40 numbers = 36

average of the first 25 numbers = 31

Average of last 16 numbers = 43

Calculation:

=> {(31 × 25) + (16 × 43)} – (40 × 36)

=> {775 + 688} – 1440

=> 1463 – 1440

=> 23

Therefore The 25th number is 23.

Shortcut Trick

GIven average = 36

Missing number. = average + (higher avg. - avg) × carry a higher average of candidate - (avg - lower avg) × carry a lower average of the candidate

So, the 25th number. = 36 + (43 - 36) 16 - (36 - 31) 25

=> 36 + 112 - 125 = 23

Q71. Answer: (b) 16%

Given:

Woman earns Rs. 1000/day

Increased earning = Rs. 1160/day

Concept used:

Percentage increased = (Difference/Actual) × 100

Calculation:

{(1160 – 1000)/1000} × 100

=> (160/1000) × 100

=> 16

=> Increased % = 16%

Therefore Her earnings increase by 16%

Q72. Answer: (a) 1

Given:

$\sin\theta = 2x$

$\cos\theta = 2/x$

Formula used:

$\sin^2\theta + \cos^2\theta = 1$

Calculation:

=> $\sin\theta = 2x$

=> $\sin^2\theta = 4x^2$ ---------(1)

=> $\cos\theta = 2/x$

=> $\cos^2\theta = 4/x^2$---------(2) Add (1) and (2)

=> $\sin^2\theta + \cos^2\theta = 4x2 + 4/x2$

=> $4x2 + 4/x2 = 1$

=> $4(x2 + 1/x2) = 1$

Therefore The required value is 1

Q73. Answer: (d) 9.625 cm²

Given:

Circumference of the circle = 22 cm

Formula used:

Circumference = $2\pi r$

Area of a circle = πr^2

Area of the quadrant = (πr2 × 1/4)
r = Radius of the circle
Calculation:
2πr = 22
=> πr = 11
=> 22/7 × r = 11
=> r = 3.5
Area of the circle = πr²
=> 22/7 × 7/2 × 7/2
=> 154/4
=> Area of the quadrant = 154/4 × 1/4
=> 154/16
=> 9.625
=> Area of the quadrant = 9.625 cm²
Therefore Area of the quadrant is 9.625 cm²

Q74. Answer: (d) 37

Given:
Initial ratio = 16 : 19
Ratio after decrease = 7 : 6
Concept used:
(1st number – x) : (2nd number – x) = Ratio after decrease
Calculation:
Let x be decreased from each terms
(16 – x)/(19 – x) = 7/6
=> 96 – 6x = 133 – 7x
=> 7x – 6x = 133 – 96
=> x = 37
Therefore Required answer is 37

Q75. Answer: (b) 2.5% p. a.

Given:
Total amount = 9/8 of the sum to suresh
Time = 5 year
Formula used:
Simple interest = (Principal amount × rate of interest × time)/100
Calculation:
Let the principal and rate of interest be P and R
Total amount = 9P/8
Simple interest = (9P/8) – P = P/8
S.I. = (P × R × T)/100
=> P/8 = (P × R × 5)/100
=> 1/8 = R/20
=> R = 20/8
=> R = 2.5%
Therefore The rate of simple interest is 2.5%.

Q76. Answer: (d) 1891

The Correct Answer is "1891".
Important Points
• The Rovers Cup was an annual football tournament held in India.
• It was the second oldest tournament of India.
• The championship was started by some British football enthusiasts at Bombay, Maharashtra in 1891, as a form of amusement.

• Rovers Cup was organized by Western India Football Association (WIFA).
• Rovers Cup was Founded in 1890.
• Rovers Cup was Abolished 2001.
• The last champions of the Rovers Cup was Mohun Bagan AC.

Q77. Answer: (c) 1917

The correct Answer is "1917".

Key Points

• "1917" is a 2019 British war film directed and produced by Sam Mendes, who co-wrote the film with Krysty Wilson-Cairns.
• Best motion picture - drama winner is 1917.
• Best actress in a motion picture - drama winner is Renée Zellweger - Judy.
• Best actor in a motion picture - drama winner is Joaquin Phoenix - Joker.

Additional Information

• The Golden Globe Awards are accolades bestowed by the 93 members of the Hollywood Foreign Press Association beginning in January 1944.
• It recognizes excellence in film, both American and international, and American television.
• The annual ceremony at which the awards are presented is normally held every January and is a major part of the film industry's awards season, which culminates each year in the Academy Awards.
• The 77th Golden Globe Awards, honoring the best in film and television in 2019, were held on January 5, 2020.

Q78. Answer: (d) Maharashtra

The correct answer is Maharashtra.

Key Points

• Lavani is folk music of Maharashtra.
• Capital: Mumbai.
• Chief Minister: Eknath Shinde.
• Governor: Bhagat Singh koshyari.
• Official Language: Marathi.

Additional Information

Karnataka

• Carnatic is folk music of Karnataka.
• Capital: Bengaluru.
• Chief Minister: Basavaraj Bommai
• Governor: Thaawarchand Gehlot.
• Official Language: Kannada

Odisha

• Odissi is a folk dance form of Odisha
• Capital: Bhubaneswar.
• Chief Minister: Naveen Patnaik.
• Governor: Ganeshi Lal.
• Official Language: Odia.

Kerala

• Kathakali and Mohiniyattam is a classical dance form of Kerala
• Capital: Thiruvananthapuram
• Chief Minister: Pinarayi Vijayan
• Governor: Arif Mohammad Khan
• Official Language: Malayalam

Q79. Answer: (d) Monera

The correct answer is Monera.

Key Points

• Monera is a kingdom that contains unicellular organisms with a prokaryotic cell organization having no nuclear membrane such as bacteria.

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• They contain 70S ribosomes and DNA is naked.
• They reproduce asexually by binary fission or budding.
• They do not possess any membrane-bound organelles.
• They are found mostly in a moist environment like hot springs, snow, deep oceans, or as parasites in other organisms.

Additional Information

• Animalia kingdom includes all animals.
• Animals are multicellular, eukaryotic organisms.
• Animals are heterotrophic, obtaining their energy by consuming energy-releasing food substances.
• Animals typically reproduce sexually.
• Animals are made up of cells that do not have cell walls.
• Protista is a kingdom of simple eukaryotic organisms, usually composed of a single cell or a colony of similar cells.
• Protists live in water, in moist terrestrial habitats, and as parasites and other symbionts in the bodies of multicellular eukaryotes.
• Fungi are eukaryotic organisms that include microorganisms such as yeasts, moulds and mushrooms.
• They can be either single-celled or multicellular organisms.
• Fungi contain a cell wall and are omnipresent.

Q80. Answer: (b) Nand Kishore Acharya

The Correct Answer is Nand Kishore Acharya.

Important Points

• Nand Kishore Acharya awarded the Sahitya Akademi Award 2019 in Hindi Literature.
• He receives recognition for his book of Hindi poetry, 'Chheelatey Hue Apne Ko'.
• Nand Kishore Acharya was born in Bikaner, Rajasthan.

Additional Information

• The Sahitya Akademi, India's National Academy of Letters, is an organization dedicated to the promotion of literature in the languages of India.
• Founded on 12 March 1954, it is supported by, though independent of, the Indian government.
• Its office is located in Rabindra Bhavan near Mandi House in Delhi.
• It presents the annual Sahitya Akademi Award of Rs. 100,000 (approx. USD 1,500 (in the year 2013)) in each of the 24 languages it supports, as well as the Sahitya Akademi Fellowship for lifetime achievement.

Key Points

• Seven poets will be given the award -- Phukan Ch. Basumatary (Bodo), Nand Kishore Acharya (Hindi), Niba A Khandekar (Konkani), Kumar Manish Arvind (Maithili), V Madhusoodanan Nair (Malayalam), Anuradha Patil (Marathi), and Penna Madhusudan (Sanskrit).
• Joysree Goswami Mahanta (Assamese), L Birmangol Singh (Manipuri), Cho Dharman (Tamil) and Bandi Narayan Swami (Telugu) will receive the award for their novels.
• Six authors will get the recognition in short story category -- Abdul Ahad Hajini (Kashmiri), Tarun Kanti Mishra (Odia), Kripal Kazak (Punjabi), Ramswaroop Kisan (Rajasthani), Kali Charan Hembram (Santali), and Ishwar Moorjani (Sindhi).

Q81. Answer: (d) Tripitaka

The correct answer is Tripitaka.

Key Points

• Tripitaka is the traditional term for the Buddhist scriptures.
• Tripitaka are of three types:
• Vinay Pitaka rules of monastic discipline for monks.
• Sutta Pitaka is a collection of Buddha's Sermon.
• Abhidhamma Pitaka is the philosophies of Buddha's teachings.

Important Points

Buddhism

• Founder of Buddhism: Gautam Buddha was born in 563 BC at Lumbinivana(Rummindehi district, Nepal) on Vaisakha Purnima day in Sakya Kshatriya clan.
• His father Suddhodhana and his mother Mahamaya.
• After his mother's early death, he was brought up by stepmother Gautami.

• He married at 16 to Yasodhara, enjoyed married life for 13 years, and had a son named Rahul.

• At the age of 29, he enounced home, this was his Mahabhinishkramana (geat going forth, Symbol - horse), and became a wandering ascetic.

• At the age of 35, under a pipal tree at Uruvella (Bodh Gaya) on the banks of river Niranjana(modern name Flagu), he attained Nirvana (enlightenment, Symbol - Bodhi tree) after 49 days of continuous meditation.

• First Sermon at Sarnath to his five disciples known as Dharamachakra Pravartna (Symbol - 8 spoked wheel).

• He died at the age of 80 in 483 BC at Kushinagar district in Uttar Pradesh. This is known as Mahaparinirvana (Final Blowing out).

Additional Information

• Torah is the first part of the Jewish bible. It is the central and most important document of Judaism and has been used by Jews through the ages.

• The Avesta is the primary collection of religious texts of Zoroastrianism, composed in Avestan language and written by Zarathustra.

• Kalpa Sutra is a Jain text in Sanskrit containing the biographies of the Jain Tirthankaras, notably Parshvanatha and Mahavira.

Q82. Answer: (a) 1982

The Correct Answer is "1982".

Important Points

• National Bank for Agriculture and Rural Development (NABARD) is an apex development finance institution fully owned by the Government of India.

• The bank has been entrusted with "matters concerning policy, planning, and operations in the field of credit for agriculture and other economic activities in rural areas in India".

• NABARD is active in developing & implementing Financial Inclusion.

• NABARD has its head office in Mumbai, India, and regional offices in all states, and one special cell at Srinagar J&K.NABARD was established on the recommendations of the B.Sivaramman Committee (by Act 61, 1981 of Parliament) on 12 July 1982 to implement the National Bank for Agriculture and Rural Development Act 1981.

• It replaced the Agricultural Credit Department (ACD) and Rural Planning and Credit Cell (RPCC) of Reserve Bank of India, and Agricultural Refinance and Development Corporation (ARDC).

• It is one of the premier agencies providing developmental credit in rural areas.

• NABARD is India's specialized bank for Agriculture and Rural Development in India.

• The initial corpus of NABARD was Rs.100 crores.

• Consequent to the revision in the composition of share capital between the Government of India and RBI, the paid-up capital as of 31 March 2020, stood at Rs.14080 crore with the Government of India holding Rs.14080 crore (100% share).

• The authorized share capital is Rs.30,000 crore.

• As of May 2020, NABARD operates at 32 Regional Offices in the country.

• The organization had developed a huge amount of trust capital in its 3 decades of work with rural communities.

Q83. Answer: (a) F1

The correct answer is F1.

Key Points

1. F1 function key is used for opening help.

2. A function key is a key on a computer keyboard to perform certain actions.

3. The function keys are arranged on the top of the computer keyboard numbered across from F1 to F12.

4. The keys are frequently used in combination with other keys such as the CTRL key, the ALT key, and the SHIFT key.

5. The function keys provide some interesting shortcuts for common computer functions that can be useful tools in everyday computing.

Additional InformationSome of the use of function keys:

Function keys	Function
F2	To rename a selected file or folder.
F3	To search for a file or folder.
F4	To close the active window with the Alt key
F5	To refresh or reload the current page.
F6	To move the cursor to the address bar in most web browsers.

F7	To spell-check and grammar check
F8	To access the boot menu in Windows
F9	Refresh a document in MS word
F10	Activate the menu bar of the application
F11	Enter and exit full screen in web browsers
F12	Open the Save as dialog box in MS word

Q84. Answer: (b) 4

The Correct Answer is "4".

Padma Vibhushan in 2019 :

1. Ms. Teejan Bai — Art-Vocals-Folk — Chhattisgarh

2. Shri Ismail Omar Guelleh (Foreigner) — Public Affairs — Djibouti

3. Shri Anilkumar Manibhai Naik — Trade & Industry-Infrastructure — Maharashtra

4. Shri Balwant Moreshwar Purandare — Art-Acting-Theatre — Maharashtra

Important Points

• The Padma Vibhushan is the second-highest civilian award of the Republic of India, after the Bharat Ratna.

• Instituted on 2 January 1954, the award is given for "exceptional and distinguished service", without distinction of race, occupation, position, or sex.

• The award criteria include "service in any field including service rendered by Government servants" including doctors and scientists, but excluding those working with the public sector undertakings.

• During 1 May and 15 September of every year, the recommendations for the award are submitted to the Padma Awards Committee, constituted by the Prime Minister of India.

• The recommendations are received from all the state and the union territory governments, the Ministries of the Government of India, the Bharat Ratna and previous Padma Vibhushan award recipients, the Institutes of Excellence, the Ministers, the Chief Ministers and the Governors of State, and the Members of Parliament including private individuals.

• The committee later submits their recommendations to the Prime Minister and the President of India for further approval.

• The award recipients are announced on Republic Day.

Additional Information

• On 2 January 1954, a press release was published from the office of the secretary to the President of India announcing the creation of two civilian awards—Bharat Ratna, the highest civilian award, and the three-tier Padma Vibhushan.

• On 15 January 1955, the Padma Vibhushan was reclassified into three different awards: the Padma Vibhushan, the highest of the three, followed by the Padma Bhushan and the Padma Shri.

Q85. Answer: (c) Uttarakhand

The correct answer is Uttarakhand.

• Other Important passes in Uttarakhand

• Lipulekh Pass is in the state of Uttarakhand.

• Lipulekh is a Himalayan pass on the border between Uttarakhand, India and Tibet, China.

• This pass is an important border pass for trade with China.

• The southern side of the pass is controlled by India but claimed by Nepal.

• Mana Pass: It is located in the Greater Himalayas and connects Tibet with Uttarakhand.

• Niti Pass: It is located in Uttarakhand and connects with Tibet.

Additional Information

Himachal Pradesh

• Rohtang pass: It is located in the state of Himachal Pradesh and connects the Kullu Valley with the Lahaul and Spiti Valleys of Himachal Pradesh.

• Bara-lacha la Pass: also known as Bara-lacha Pass, is a high mountain pass in the Zanskar range, connecting Lahaul district in Himachal Pradesh to Leh district in Ladakh, situated along the Leh–Manali Highway.

Jammu and Kashmir

• Banihal Pass: It is the most popular pass and located in Jammu and Kashmir. It is a mountain pass across the Pir- Panjal Range and connects Banihal with Qazigund. Banihal Pass is also known as Jawahar tunnel.

• Zoji La Pass: It connects Srinagar with Kargil and Leh.

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Q86. Answer: (b) 101

The correct answer is 101.

• GST was passed as the 101^(st) Amendment Act of 2016.

• GST(Goods and Services Tax): is a comprehensive indirect tax on the manufacture, sale, and consumption of goods and services throughout India.

• The four basic rate structures of GST are 5%, 12%, 18%, and 28%.

Key Points

• The motto of GST - "One Nation, One Tax, One Market".

• Three types of taxes in Indian GST are State GST(SGST)/ Union Territory GST(UTGST), Central GST(CGST), and Integrated GST(IGST).

• GST bill was passed by Rajya Sabha on 3^(rd) August 2016.

• GST bill was passed by Lok Sabha on 8^(th) August 2016.

• GST bill was signed by President on 8^(th) September 2016.

• GST came into effect on 1^(st)July 2017.

• Articles dealing with the formation of the GST council is 279A.

• The Chairman of the GST council is Union Finance Minister.

• The first Chairman of the GST council is Arun Jaitley.

• The concept of GST was first presented in Parliament by P. Chidambaram in 2005.

• India has chosen the Canadian model of dual GST.

• The first country to introduce GST: France in 1954.

Additional Information

• 102^(nd)Constitution Amendment Act 2018 granted constitutional status to the National Commission for Backward Classes (NCBC).

• 97th Constitution Amendment Bill 2006 proposes to insert a new part IX B in the Constitution (adding Articles 243ZH through 243ZT), which provides for incorporation, regulation and winding up of co-operative societies.

Q87. Answer: (d) 2009

The Correct Answer is "2009".

Important Points

1. WhatsApp Messenger is a cross-platform centralized messaging and voice-over-IP (VoIP) service owned by Facebook, Inc.

2. WhatsApp's client application runs on mobile devices but is also accessible from desktop computers, as long as the user's mobile device remains connected to the Internet while they use the desktop app.

3. The service requires each user to provide a standard cellular mobile telephone number for registering with the service.

4. In January 2018, WhatsApp released a standalone business app targeted at small business owners, called WhatsApp Business, to allow companies to communicate with customers who use the standard WhatsApp client.

Key Points

• The original authors of WhatsApp are Brian Acton, Jan Koum.

• WhatsApp was founded by Brian Acton and Jan Koum, former employees of Yahoo!.

• In January 2009, after purchasing an iPhone and realizing the potential of the app industry on the App Store, Koum and Acton began visiting Koum's friend Alex Fishman in West San Jose to discuss a new type of messaging app that would show "statuses next to individual names of the people".

• They realized that to take the idea further, they would need an iPhone developer. Fishman visited RentACoder.com, found Russian developer Igor Solomennikov, and introduced him to Koum.

• Koum named the app WhatsApp to sound like "what's up". On February 24, 2009, he incorporated[9] WhatsApp Inc. in California.

• In June 2009, Apple launched push notifications, allowing users to be pinged when they were not using an app. Koum changed WhatsApp so that everyone in the user's network would be notified when a user's status is changed.

Q88. Answer: (c) Pranab Mukherjee

The correct answer is Pranab Mukherjee.

Key Points

• Pranab Mukherjee served as 13^(th) President of India from 25^(th) July 2012 till 25th July 2017.

• He was honoured with India's highest civilian honour, the Bharat Ratna in 2019 by incumbent President Ram Nath Kovind.

• Mukherjee had served as the Defence Minister from 2004-2006, External Affairs from 2006-2009, and the Union Minister of

Finance from 2009 to 2012 before he was elected President.

• The Prime Minister PV Narasimha Rao appointed Mukherjee as the head of the Planning Commission in 1991 and Foreign Minister in 1995.

• Throughout his political career till his resignation in 2012, he held several key cabinet portfolios including as Finance Minister from 2009-2012.

• Pranab Mukherjee was voted the Best Finance Minister in the World by Euromoney magazine in 1984.

• Pranab Mukherjee passed away on 31^(st)August 2020, after testing positive for COVID-19.

Additional Information

Ram Nath Govind

• He was the 14^(th) President of India.

• He was the second person from the Dalit caste, after K. R. Narayanan.

• He served as the 26^(th) Governor of Bihar from 2015 to 2017 and as a Member of Parliament, Rajya Sabha from 1994 to 2006.

• He was a lawyer for 16 years and practised in the Delhi High Court and the Supreme Court until 1993.

Pratibha Patil

• Pratibha Patil served as 12^(th) President of India from 25th July 2007 to 25th July 2012.

• Pratibha Patil was the first and only woman President of India.

• She served as the 17th Governor of Rajasthan from 2004 to 2007 and 9^(th) Deputy Chairman of Rajya Sabha from 1986 to 1988.

A P J Abdul Kalam

• Abdul Kalam was an Indian Aerospace Scientist who served as 11th President of India from 25th July 2002 to 25th July 2007.

• He is known as the "Missile Man of India".

• He worked with the Indian Space Research Organisation (ISRO) and Defence Research and Development Organisation (DRDO) as an aerospace engineer, before becoming the President of India.

• His birth anniversary is observed as "World Student's Day" on 15^(th) October.

• He awarded Padma Bhushan(1981), Padma Vibhushan(1990) and Bharat Ratna (1997).

Q89. Answer: (b) Maharashtra

The correct answer is Maharashtra.

• Salsette Island is situated in the state of Maharashtra.

• It is one of the most densely populated islands in the World.

• The island of Trombay was to the southeast of Salsette.

• The metropolis of Mumbai and the cities of Thane and Mira-Bhayander lie on Salsette.

• Borivali National Park, also known as Sanjay Gandhi National Park is situated in Salsette Island.

• Mumbai is the Seven Island City.

Q90. Answer: (a) Tsangpo

The correct answer is Tsangpo.

Key Points

• In Tibet, the Brahmaputra river is known as "Tsangpo"

• Brahmaputra is the largest river in India by volume(2900 km).

• Brahmaputra is the least polluted Himalayan River.

• The Brahmaputra is also known as the "Red River"

• Major tributaries of Brahmaputra are Teesta, Lohit, Dihang and Subansiri.

• The largest tributary of Brahmaputra is Subansiri.

• The fastest flowing river is Teesta

Additional Information

• In Bangladesh, the Brahmaputra river is known as "Jamuna"

• In Arunachal Pradesh, the Brahamaputra river is known as "Siang/ Dihang River"

• In Assam, the Brahmaputra river is known as "Lohit"

Q91. Answer: (c) New Zealand

The Correct Answer is "New Zealand".

Important Points

• The 2019 Cricket World Cup Final was a One Day International cricket match played at Lord's in London, England, on 14 July 2019 to determine the winner of the 2019 Cricket World Cup.

• It was contested by the runners-up from the previous tournament, New Zealand, and the host nation, England.

• It was the fifth time Lord's had hosted the Cricket World Cup Final, the most of any ground.

• The two teams were tied on 241 runs at the end of the match, resulting in a Super Over being played to break the tie.

• On the final ball of New Zealand's Super Over, after equalling the 15 runs England managed in their over, Martin Guptill attempted to score the winning run but was run out by Jason Roy and Jos Buttler, meaning the Super Over was also tied.

• England won on the boundary countback rule, having scored 26 boundaries to New Zealand's 17, thus becoming Cricket World Cup winners for the first time.

Key Points

• The International Cricket Council (ICC) is the world governing body of cricket.

• It was founded at the Imperial Cricket Conference in 1909 by representatives from Australia, England and South Africa.

• It was renamed the International Cricket Conference in 1965 and took up its current name in 1989.

• The ICC is responsible for the organisation and governance of cricket's major international tournaments, most notably the Cricket World Cup and ICC T20 World Cup.

Q92. Answer: (a) 25

The correct answer is 25.

• Rajasthan has 25 seats in Lok Sabha.

• Uttar Pradesh has the maximum number of seats (80) in Lok Sabha.

• Mizoram, Nagaland and Sikkim have the least number of seats (1) in Lok Sabha.

Additional Information

• Lok Sabha is constituted under Article 81 of the constitution.

• Lok Sabha is known as "House of the People and Lower House of the Parliament".

• Lok Sabha is not a permanent Body and subject to dissolution.

• Lok Sabha has a term of 5 years.

• The maximum strength is 552(530 elected from States, 20 from Union Territories and 2 from Anglo - Indian Community are nominated by president).

• At present, the strength is 545 (530 elected from States, 13 from Union Territories and 2 from Anglo - Indian Community are nominated by president).

• The Speaker is the presiding officer of the Lok Sabha.

• The Speaker presides over a joint sitting (Article 108) of the two houses of parliament.

• A Money bill (Article 110) can be introduced only in Lok Sabha.

• First Speaker: G. V. Malvankar

• First Deputy Speaker: M. A, Ayyankar.

• Current Speaker: Om Birla.

• First Woman Speaker: Meira Kumar(15^(th) Lok Sabha).

Q93. Answer: (c) Goa

The Correct Answer is "Goa".

Important Points

• Dudhsagar Falls ('Sea of Milk') is a four-tiered waterfall located on the Mandovi River in the Indian state of Goa.

• Dudhsagar Falls is amongst India's tallest waterfalls with a height of 310 m (1017 feet) and an average width of 30 metres (100 feet).

• The Dudhsagar falls is located in the Bhagwan Mahaveer Sanctuary and Mollem National Park among the Western Ghats.

• The Dudhsagar falls is a punctuation mark in the journey of the Mandovi River from the Western Ghats to Panjim where it meets the Arabian sea.

• The area is surrounded by deciduous forests with rich biodiversity.

• This waterfall is also known as Tambdi Surla to some of the local people.

Q94. Answer: (a) Yoga for Climate Action

The Correct Answer is "Yoga for Climate Action".

Important Points

• The fifth edition of International Yoga Day (IYD-2019) is celebrated across the country and abroad on 21st June with the theme

‘Yoga for Climate Action’.

• The aim of the IYD is to raise awareness worldwide of the many benefits of practicing yoga.

• Yoga is a practice that originated in India.

• The word yoga is a Sanskrit word that means to unite or to join.

• Yoga symbolizes the unification of the body and consciousness.

• Yoga has 84 classical asanas such as Tadasana, Trikonasana, Bhajangasana, etc.

Additional Information

• The 'Bhagavad Gita' makes two important statements: “yoga - sthah kuru karmaani” (Do your duty with a yoga approach) and “samatvam yoga uchyate” (balance is the essence of yoga).

• Yoga is an approach to life that focuses on physical balance, mental equilibrium, and working towards a harmonious synthesis of diverse elements including the protection of the environment.

• The first Yoga Day celebration was held at Raj Path in New Delhi. PM Modi and other dignitaries performed around 21 yoga asanas, and created two Guinness World Records. The first record was for being the world’s largest yoga class with 35,985 people and the second one was for having the maximum number of participating nationalities, that is 84.

Q95. Answer: (c) Tamil Nadu

The correct answer is Tamil Nadu.

Shore temple is located in Mahabalipuram near Chennai in the state of Tamil Nadu.

Additional Information

• Shore temple is a structural temple, built with blocks of granite, was built in 8^(th)Century (700 - 728 AD).

• the architectural creations initiated by the King Narasimhavarman II of the Pallava Dynasty.

• It is a UNESCO World Heritage Site since 1984.

• It is the oldest structural Temple in South India.

Q96. Answer: (c) Maharashtra

The Correct Answer is "Maharashtra".

Important Points

• Maharashtra Government has launched a ‘Cyber Safe Women’ initiative under which awareness camps will be held across all the districts of the state regarding cyber safety.

• The initiative will help in educating women about how the web is used by anti-social elements and child predators to commit various types of crimes.

• The department launched the campaign on January 3 as it is the birth anniversary of Savitribai Phule, a social reformer and educationalist, who is regarded as the first woman teacher of India.

• The capital of Maharashtra is Mumbai.

• Uddhav Bal Thackeray is an Indian politician serving as the 19th and current Chief Minister of Maharashtra.

• He is the president of Shiv Sena.

Additional Information

• Bhagat Singh Koshyari is an Indian politician serving as the Governor of Maharashtra and the Governor of Goa (additional charge).

Q97. Answer: (c) X-Rays

The correct answer is X-Rays.

Key Points

• Wilhelm Conrad Röntgen was a German mechanical engineer and physicist born in 27^(th) March 1845.

• In 1901, he awarded the first Nobel Prize for Physics for the discovery of X-Rays.

• This X-ray tube became a frequently used instrument in medicine after this discovery.

Additional Information

• Thomas Alva Edison invented Electric Bulb and Gramophone.

• Sadi Carnot is the father of Thermodynamics.

• Thermodynamics is the branch of physics that deals with heat, work, and temperature, and their relation to energy, radiation, and physical properties of matter.

• The four laws of Thermodynamics are; Zeroth Law of Thermodynamics, First Law of Thermodynamics, Second Law of Thermodynamics and Third Law of Thermodynamics.

• Conservation of Electric Charge: Charge is neither created nor destroyed, it can only be transferred from one system to another.

• Unit of charge is Coulomb.

Q98. Answer: (a) Tamil Nadu

The correct answer is Tamil Nadu.

Key Points

• Vivekananda Rock Memorial is the most popular monument situated in the southernmost tip of Kanyakumari district in the state of Tamil Nadu in India and 500 meters away from the mainland.

• It was built in 1970 in honour of the great Indian monk and reformer Swami Vivekananda and took six years to complete the construction.

• The rocks are surrounded by the Laccadive Sea or Lakshadweep Sea.

• A meditation hall known as Dhyana Mandapam is also attached to the memorial for visitors to meditate

• It is believed that after meditating for three days and three nights at the rock, Swami Vivekananda attained enlightenment and transformed himself from a simple monk to an enlightened being.

• Thiruvalluvar Statue is 133 feet near Vivekanandha Rock, denotes 133 chapters of (Tirukkural) tall stone sculpture of the popular Tamil Poet- Saint Thiruvalluvar, who authored the Thirukkural Couplets.

• Kanyakumari is also known as " Cape Comorin" and famous for its unique ocean sunrise, sunset and moonrise.

• Tamil Nadu lies in the southernmost part of the Indian Peninsula.

• Tamil Nadu is the first state to ban lotteries.

Q99. Answer: (a) 6.941 amu, g/mol

The Correct Answer is "6.941 amu, g/mol".

• The atomic weight of terrestrial and commercial lithium sources varies between 6.9387 and 6.9959

• It has the atomic symbol Li, atomic number 3.

Important Points

• The total weight of an atom is called the atomic weight.

• It is approximately equal to the number of protons and neutrons, with a little extra added by the electrons.

• The standard unit of atomic mass has been one-twelfth the mass of an atom of the isotope carbon-12.

• An isotope is one of two or more species of atoms of the same chemical element that have different atomic mass numbers (protons + neutrons).

• The atomic weight of helium is 4.002602, the average that reflects the typical ratio of natural abundances of its isotopes.

• Atomic weight is measured in atomic mass units (AMU), also called daltons.

Additional Information

• Lithium compounds, also known as lithium salts, are primarily used as psychiatric medication.

• It appears to be safe to use while breastfeeding.

• Lithium salts are classified as mood stabilizers.

• Lithium is used primarily for bipolar disorder.

• In the nineteenth century, lithium was used in people who had gout, epilepsy, and cancer.

• Its use in the treatment of mental disorders began in 1948 by John Cade in Australia.

• It is on the World Health Organization's List of Essential Medicines.

Q100. Answer: (b) Shooting

The correct answer is Shooting.

Key Points

• Jitu Rai is an Indian shooter who competes in the 10-metre air pistol and 50-metre pistol events.

• He designated as a Naib-Subedar in the 11^(th) Gorkha Rifles of the Indian Army, he is posted in Lucknow.

• He is of Nepalese origin.

• He honoured with the Padma Shri, the fourth highest civilian award in the Republic of India in 2020.

• In 2014, he bagged a Silver medal in the 10 metre air pistol event at the ISSF World Cup in Munich and he won a Silver in the 50 metre pistol event, and a Gold in the 10 metre air pistol event in Maribor.

• In 2014, he ranked number 1 in the world in 10 metre air pistol and number 4, in 50 metre pistol events.

• In 2015, he honoured with Arjuna award the Outstanding Performance in Sports and Games is the sports honour of Republic of India..

• In 2016, he honoured with India’s highest sporting award, the Rajiv Gandhi Khel Ratna.

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