SSC CHSL 2020 Official Paper 4 (Held On: 13 April 2021 Shift 1) (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. Given below are four jumbled sentences. Out of the given options pick the one that gives their correct order.

A. As time passed, he grew jealous of his brother's fine appearance and gentle manners, and at last, he wished to destroy him.

B. When Orlando's father, Sir Rowland de Boys, died, he left his youngest son to the care of his eldest brother Oliver.

C. Oliver however proved an unworthy brother and neglected the boy.

D. It was Oliver who persuaded his brother to wrestle with the famous man who had killed so many others in days past, and it was this cruel brother's neglect of him that made Orlando say that he wished to die.

(a) CDBA
(b) BCAD
(c) DCBA
(d) ABCD

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

Mother said to Megha, “Leave for your office now.”

(a) Mother said to Megha leave for her office then.
(b) Mother told Megha to leave for your office now.
(c) Mother told to Megha to leave for her office now.
(d) Mother told Megha to leave for her office then.

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

Isolated

(a) Included
(b) Secluded
(c) Open
(d) Mingling

Q4. 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’.

It was cloudy in the morning but the sun is shining now.

(a) No improvement
(b) the sun were shining
(c) the sun has shone
(d) a sun is shining

Q5. Select the word which means the same as the group of words given.

A person who draws or produces maps

(a) Choreographer
(b) Chauffeur
(c) Cartographer

(d) Calligrapher

Q6. Select the misspelt word.

(a) Auspicious
(b) Endevour
(c) Acknowledge
(d) Individual

Q7. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution'.

Neither the parents nor the child were happy about the result.

(a) No substitution
(b) was happy with
(c) were happy with
(d) was happy for

Q8. In the sentence identify the segment which contains the grammatical error.

That man would have/ attacked you/ if you went/ that way.

(a) if you went
(b) That man would have
(c) that way
(d) attacked you

Q9. Select the most appropriate one-word substitution for the given group of words.

The act of thinking now about something in the past

(a) Retrospection
(b) Circumspection
(c) Introspection
(d) Inspection

Q10. Select the most appropriate meaning of the given idiom.

Wash your dirty linen in public

(a) Discuss private matters in front of others
(b) Fight with everyone unnecessarily
(c) Hangclothes outside
(d) Complain about everything

Q11. Select the most appropriate meaning of the underlined idiom in the given sentence.

Newton's work in the field of physics speaks volumes about his genius.

(a) claims fame and honour
(b) advertises his work
(c) does not gives a detailed report
(d) conveys a great deal

Q12. Select the most appropriate ANTONYM of the given word.

Frigid

(a) Salty
(b) Chilly
(c) Frosty
(d) Warm

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Q13. Select the most appropriate synonym of the given word.

EMERGE

(a) Aspire
(b) Admire
(c) Acquire
(d) Appear

Q14. Given below are four sentences in jumbled order. Pick the option that gives their correct order.

A. The robber demanded all his valuables or threatened to kill him.
B. But he put up a brave front and challenged the robber.
C. A merchant was confronted by a highway robber.
D. The merchant was scared to death.

(a) CADB
(b) BCAD
(c) DABC
(d) ADCB

Q15. Select the most appropriate word to fill in the blank.

As far as he is _____, he will love to attend the party.

(a) confined
(b) interested
(c) anxious
(d) concerned

Q16. Select the correct passive form of the given sentence.

A traffic policeman fined Taru for jumping the red light.

(a) Taru was fined by a traffic policeman for jumping the red light.
(b) Taru is fined by a traffic policeman for jumping the red light.
(c) Taru has been fined by a traffic policeman for jumping the red light.
(d) A traffic policeman was fined by Taru for jumping the red light.

Q17. Select the INCORRECTLY spelt word.

(a) Groan
(b) Greive
(c) Grind
(d) Ground

Q18. Fill in the blank with the most appropriate option.

She made an _____ to break the record for long jump.

(a) exercise
(b) intention
(c) attack
(d) attempt

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

STRETCH

(a) Extend
(b) Elongate
(c) Compress
(d) Lengthen

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Q20. Identify the segment in the given sentence which contains the grammatical error.

Employees were given incentives based at their performance.

(a) given incentives
(b) Employees were
(c) based at
(d) their performance

Directions

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.

I have always enjoyed flying. I wasn't afraid (1) ____ my mother and I boarded LANSA Airlines flight 508. Some people had (2) __ flying LANSA because of a recent crash. But (3) __ and I had a good reason for flying: I had just (4) __ secondary school in Lima, and we wanted to (5) ____Christmas with my father in our jungle hut.

Q21. Select the most appropriate option for blank No. 1.

(a) how
(b) if
(c) where
(d) when

Q22. Select the most appropriate option for blank No. 2.

(a) given away
(b) given in
(c) given out
(d) given up

Q23. Select the most appropriate option for blank No. 3.

(a) sister
(b) father
(c) brother
(d) mother

Q24. Select the most appropriate option for blank No. 4.

(a) finished
(b) finish
(c) finishing
(d) finishes

Q25. Select the most appropriate option for blank No. 5.

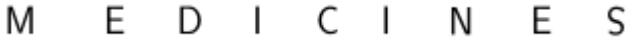
(a) spend
(b) live
(c) leave
(d) stay

GENERAL INTELLIGENCE

Q26. Select the correct mirror image of the given combination when the mirror is placed at 'PQ' as shown.



(a)



(b)



(c)



(d)



Q27. Select the option in which the numbers share the same relationship as that shared by the given pair of numbers.

18 : 42

(a) 9 : 22
(b) 12 : 32
(c) 24 : 56
(d) 15 : 37

Q28. Select the option that is related to the third term in the same way as the second term is related to the first term.

Indonesia : Jakarta : : Canada : ?

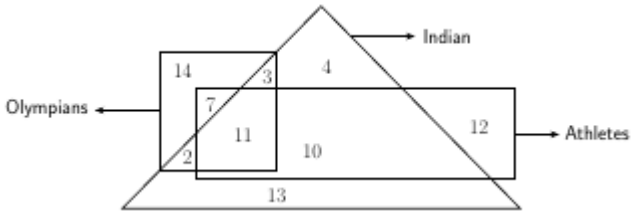
(a) Muscat
(b) Doha
(c) Ottawa
(d) Seoul

Q29. Select the option in which the numbers are related in the same way as are the numbers of the following set.

{5, 15, 20}

(a) {24, 8, 18}
(b) {10, 13, 17}
(c) {4, 14, 24}
(d) {9, 14, 19}

Q30. In the given diagram, the triangle stands for 'Indians', the rectangle stands for 'Athletes', and the square stands for 'Olympians'. The numbers given in the different segments represent the number of persons in that category.

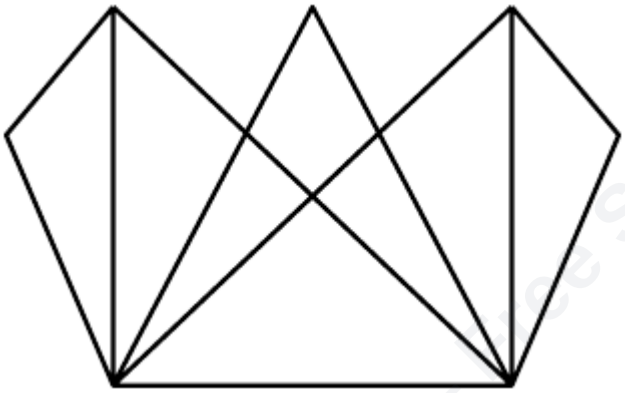


How many Indians are either Athletes or Olympians but NOT both?

(a) 15
(b) 20
(c) 24
(d) 12

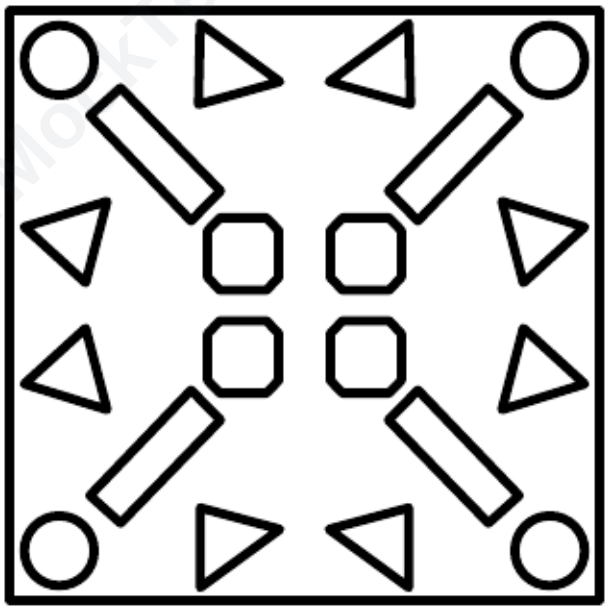
Q31. How many triangles are there in the following figure?

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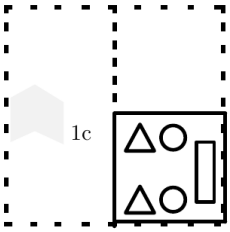


(a) 12
(b) 14
(c) 18
(d) 16

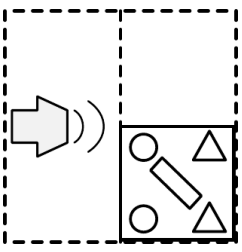
Q32. A sheet of paper is folded in a particular manner and several punches are made. When unfolded, the paper looks like the given figure. Select the option that follows the manner in which the paper is folded and punched.



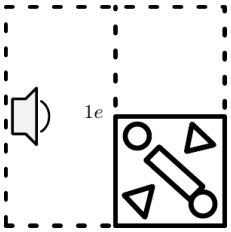
(a)



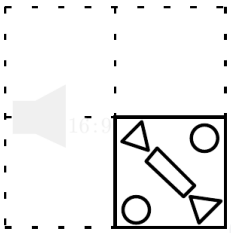
(b)



(c)



(d)



Q33. In a certain code language, PROFANE is written as KOLCZKV. How will DISOBEY be written in that language?

(a) ARPLYVV
(b) WHGYLBB
(c) WFHLYBB
(d) APRYLVV

Q34. Select the option in which the numbers are related in the same way as are the numbers of the following set.

(23, 4, 92)

(a) (29, 7, 203)
(b) (27, 8, 218)
(c) (26, 5, 132)
(d) (24, 6, 146)

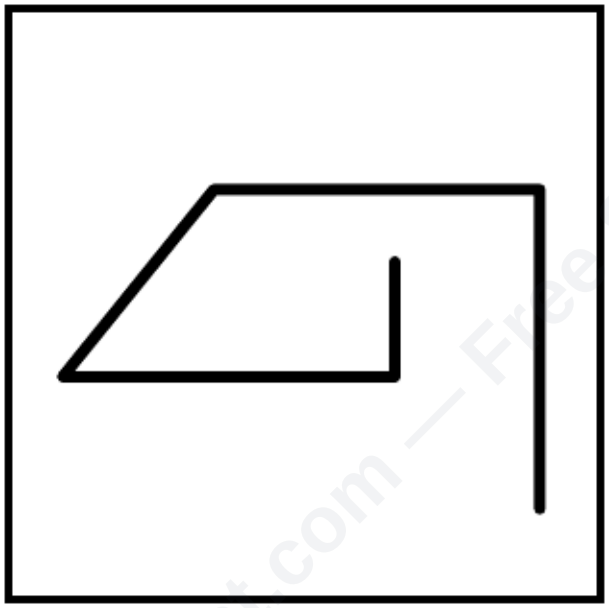
Q35. Select the number from among the given options that can replace the question mark (?) in the following series.

4, 7, 11, 17, 27, 45, ?

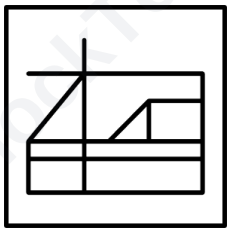
(a) 79
(b) 97
(c) 78
(d) 87

Q36. Select the option in which the given figure is embedded (rotation is NOT allowed).

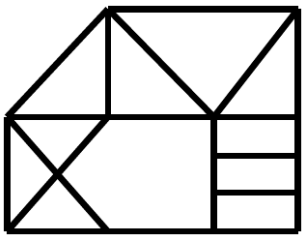
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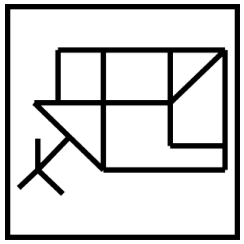
(a)



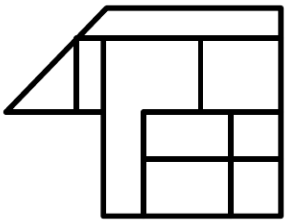
(b)



(c)



(d)



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Q37. In a certain code language, MACHINE is coded as 5861944. How will STORK be coded in that language?

(a) 86496
(b) 87397
(c) 12692
(d) 96479

Q38. 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:

All combs are scales.

Some routers are combs.

All gloves are routers.

Conclusions:

I. All gloves are scales.

II. Some gloves are scales.

III. Some scales are routers.

IV. All routers are scales.

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

Q39. Select the option that represents the letters that, when placed from left to right in the blanks below, will complete the letter sequence correctly.

Q _ _ R R K Z _ _ K Z R T _ _ R

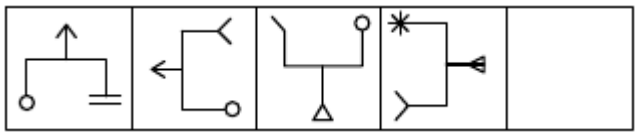
(a) K Z R S K Z
(b) Q Z R S P R
(c) K Z R P R Z
(d) Q R Z S P R

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

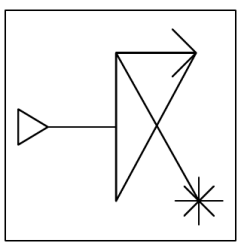
SACRED : VXEPIZ : : WINTER : ?

(a) ZPFIRN
(b) ZFPRIN
(c) TPLIRS
(d) TLPIRS

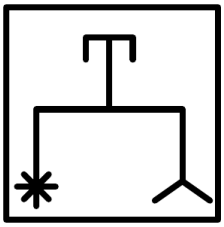
Q41. Select the figure that will come next in the following series.



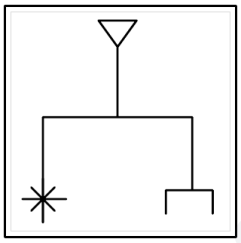
(a)



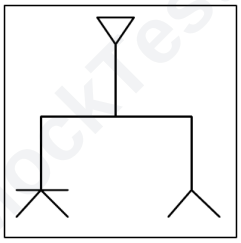
(b)



(c)



(d)



Q42. Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the letter-cluster that is different.

(a) GBTV
(b) CGXT
(c) HDSW
(d) DJWQ

Q43. Pointing to the photograph of a lady, Sukanya said, "Her son's son is the brother of my daughter's sister." How is the lady related to Sukanya, if Sukanya is a female?

(a) Sister
(b) Mother-in-law
(c) Mother
(d) Daughter

Q44. Select the option in which the words share the same relationship as that shared by the given pair of words.

Car : Truck

(a) Chair : Bench
(b) Shoe : Socks
(c) Thunder : Light
(d) Ball : Bat

Q45. Krishna gave 1/9 of his savings to his son, 3/4 of the remaining to his first daughter, and the rest to his second daughter. If the first daughter received Rs. 880 more than the second one, how much did the son get?

(a) Rs. 220
(b) Rs. 225
(c) Rs. 245
(d) Rs. 200

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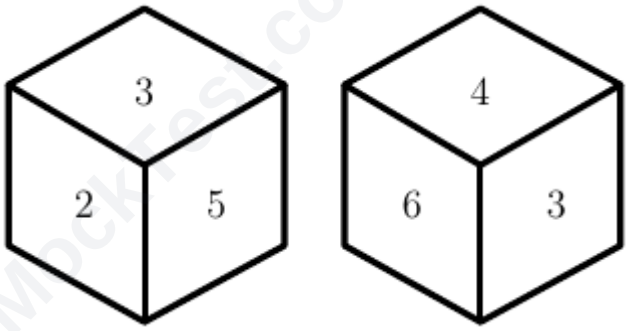
Q46. Four numbers have been given, out of which three are alike in some manner and one is different. Select the number that is different.

(a) 678
(b) 234
(c) 345
(d) 589

Q47. Four words have been given, out of which three are alike in some manner and one is different. Select the word that is different.

(a) Ridiculous
(b) Gorgeous
(c) Exalted
(d) August

Q48. Two different positions of the same dice are shown. Select the number that will be at the top if '6' is at the bottom.



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

Q49. Select the correct combination of mathematical signs that can sequentially replace the * signs and balance the given equation.

216 * 6 * 8 * 64 * 48 = 500

(a) ×, +, ÷, −
(b) ÷, +, ×, −
(c) ÷, −, ×, +
(d) ×, +, −, ÷

Q50. Select the correct option that indicates the arrangement of the given places in a logical and meaningful order.

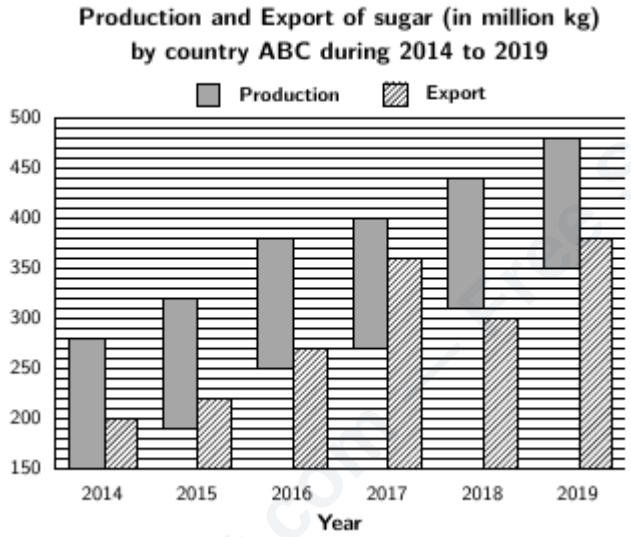
1. Hyderabad
2. Nagpur
3. Dehradun
4. Bhopal
5. Madurai
6. Agra

(a) 5, 1, 2, 4, 3, 6
(b) 5, 1, 4, 3, 2, 6
(c) 3, 6, 2, 4, 1, 5
(d) 3, 6, 4, 2, 1, 5

QUANTITATIVE APTITUDE

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Q51. Study the given graph and answer the question the follows.



What is the ratio of the total production of sugar in 2014 and 2018 to the total export in 2015 and 2019?

(a) 9 : 8
(b) 6 : 5
(c) 36 : 35
(d) 7 : 6

Q52. What is the least 6-digit number that is divisible 71?

(a) 100039
(b) 100037
(c) 100041
(d) 100035

Q53. ΔPQR is inscribed in a circle with center O. PO is produced to meet QR at U and the circle at S, and PT ⊥ QR, where T lies between Q and U. if angle Q = 70° and angle R = 55°, then what is the measure (in degrees) of angle TPS?

(a) 30
(b) 15
(c) 20
(d) 25

Q54. If $a + b + c = 5$ and $a^3 + b^3 + c^3 - 3abc = 185$, then the value of $ab + bc + ac$ lies between:

(a) 5 and 9
(b) -3 and 1
(c) 1 and 5
(d) -7 and -3

Q55. What is the simple interest on a sum of Rs. 99,000 at 121/2% per annum for a period of 9 months?

(a) Rs. 8,281.25
(b) Rs. 9,281.25
(c) Rs. 9,282.25
(d) Rs. 7,281.25

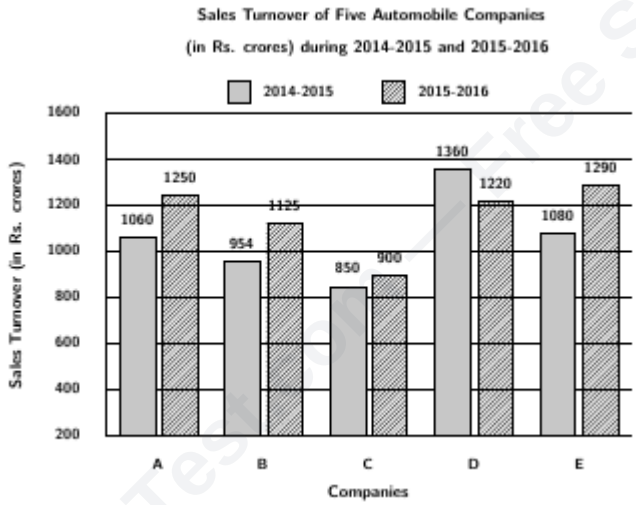
Q56. In a bag, white mobile covers and black mobile covers are in the ratio of 4 : 7. If there are 280 black mobile covers, then how many white mobile covers are there in the bag?

(a) 158
(b) 160
(c) 156
(d) 154

Q57. Study the given bar graph and answer the question that follows.

The given bar graph represents the Sales Turnover (in Rs. crore) of five automobile companies A, B, C, D and E during 2014-2015 and 2015-2016. The X-axis represents the Companies, and the Y-axis shows the Sales Turnover (in Rs. crore).

(The data shown here is only for mathematical exercise. They do not represent the actual figures of the company.)



By what percentage is the average sales turnover of all the companies combined in 2015-2016 more than the average sales turnover of the companies A, C and E in 2014-2015 (to the nearest whole number)?

(a) 25
(b) 20
(c) 18
(d) 16

Q58. If 3u + 2v = 7 and uv = 2, then the value of (3u - 2v) is:

(a) 1
(b) 2
(c) 0
(d) 5

Q59. By selling 92 kg of wheat, a person gains the selling price of 12 kg of it. His gain percentages is:

(a) 12%
(b) 15%
(c) 18%
(d) 16%

Q60. If $\cot\theta = \sqrt{2} + 1$, then $\text{cosec}\theta\sec\theta$ = ?

(a) $\sqrt{2}/2$
(b) $\sqrt{2}/4$
(c) $2\sqrt{2}$
(d) $4\sqrt{2}$

Q61. An article is sold for Rs. 372 after two successive discounts of 25% and 38% on its marked price. Total discount (in Rs.) is:

(a) 380
(b) 420
(c) 400
(d) 428

Q62. A and B can complete a certain work in 6 days and 8 days, respectively. They worked together for 3 days. C alone completed the remaining work in 2 days. B and C together can complete 3/4 of the same work in:

(a) 6 days
(b) 4 days
(c) 3 days
(d) 2 days

Q63. If $2x^2 - 6x = 1$, then $x^2 + 1/(4x^2)$=?

(a) 8
(b) 9
(c) 10
(d) 12

Q64. If $5\sin^2\theta = 3(1 + \cos\theta)$, $0° < \theta < 90°$, then the value of $\text{cosec}\theta + \cot\theta$ is:

(a) $\sqrt{(7/3)}$
(b) $4/\sqrt{21}$
(c) $5/\sqrt{21}$
(d) $\sqrt{(3/7)}$

Q65. AB and CD are two chords of a circle that intersects at E inside the circle. If angle BEC = 125° and angle EBD = 28°, then what is the measure of angle BAC?

(a) 87°
(b) 55°
(c) 56°
(d) 97°

Q66. If ΔABC, DE || AB, where D and E are points on sides AC and BC, respectively. F is a point between C and D such that EF || BD. If AD = 15 cm, DC = 10 cm, then the length of CF is:

(a) 7.5 cm
(b) 5 cm
(c) 3 cm
(d) 4 cm

Q67. The average number of electronic items sold by a trader in 2004, 2005, 2006 and 2007 is 18950 and that sold in 2005, 2006, 2007 and 2008 is 21725. If the number of items sold in 2008 is 12750, then the number of items sold in 2004 is:

(a) 1650
(b) 1700
(c) 1600
(d) 1550

Q68. The perimeter of a rhombus is 148 cm, and one of its diagonals is 24 cm. The area (in cm^2) of the rhombus is:

(a) 875
(b) 700
(c) 840
(d) 770

Q69. Ashok completes a journey in 7 hours. He travels the first half of the journey at the speed of 24 km/h and the second half of it at the speed of 32 km/h. The total distance of the journey is:

(a) 194 km
(b) 188 km
(c) 190 km
(d) 192 km

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Q70. If $(\text{cosec}\ \theta+\cot\theta)/(\text{cosec}\ \theta-\cot\theta)=7$, then the value of $(4\sin^2\theta+5)/(4\sin^2\theta-1)$ is:

(a) 12
(b) 3
(c) 15
(d) 9

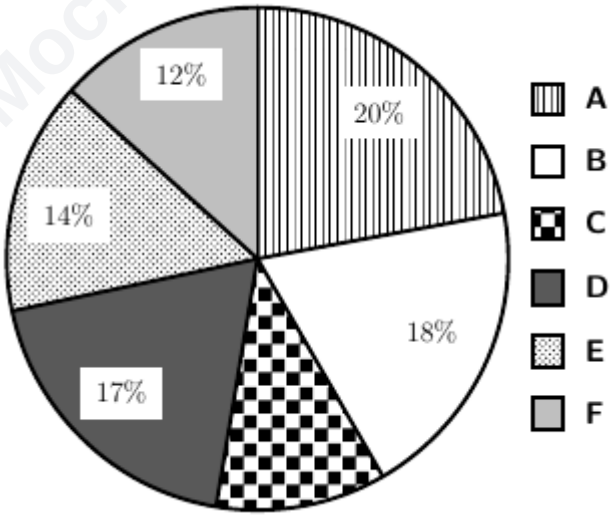
Q71. What is the perimeter of a right-angled triangle whose sides (making 90°) are $20\sqrt{3}$ cm and $15\sqrt{3}$ cm?

(a) $65\sqrt{3}$ cm
(b) $60\sqrt{3}$ cm
(c) $50\sqrt{3}$ cm
(d) $55\sqrt{3}$ cm

Q72. Rita spends 25% of her monthly income on house rent and 30% of the remaining income on food. If she saves Rs. 5,250, what is her monthly income?

(a) Rs. 16,000
(b) Rs. 12,000
(c) Rs. 14,000
(d) Rs. 10,000

Q73. The given pie chart represents the percentage-wise distribution of 300 students of class X in a school in six different sections A, B, C, D, E and F.



The given table shows the number of boys of class X in six different sections A, B, C, D, E and F.

Section	A	B	C	D	E	F
No. of boys	36	26	34	28	----	20

If in section E, the ratio of boys and girls is 4 : 3, then the ratio of the number of girls in section B to that of the number of girls in section E is:

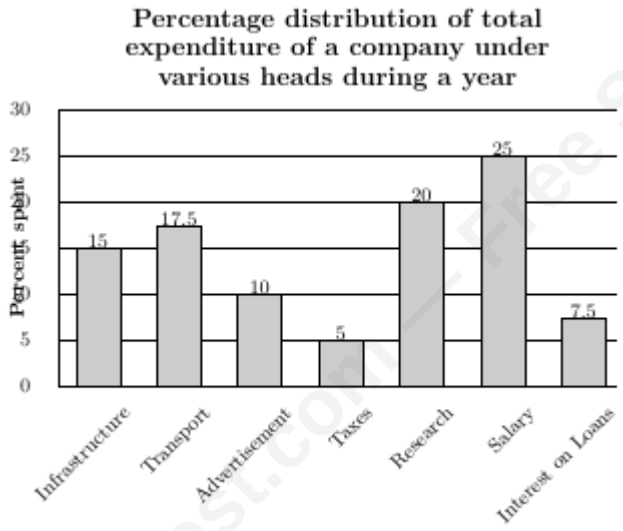
(a) 13 : 8
(b) 15 : 8
(c) 13 : 9
(d) 14 : 9

Q74. The value of $(11/8\div3/4)\div[(1/2\ \text{of}\ 11/2)\div(31/2-11/4)\ \text{of}\ 3/4-3/4\div21/4]\ \text{of}\ 3/4$ is:

(a) 6
(b) 9
(c) 18
(d) 12

Q75. Study the given graph and answer the question that follows.

The bar graph shows the percentage distribution of total expenditure of a company under various expense heads during a year.



The total expenditure of the company in the year is how many times the expenditure on Research?

(a) 5
(b) 7
(c) 6
(d) 4

GENERAL AWARENESS

Q76. The Innovation Festival 2020 was celebrated in which of the following Indian cities?

(a) Bangalore
(b) Mumbai
(c) Kolkata
(d) Itanagar

Q77. While working in MS Office software, which of the following commands will you give on a US keyboard layout to undo the previous action?

(a) Ctrl + Z
(b) Ctrl + N
(c) Ctrl + C
(d) Ctrl + U

Q78. Which of the following animals is made to race in the traditional sport called 'Kambala' in Karnataka?

(a) Goat
(b) Horse
(c) Dog
(d) Buffalo

Q79. Which of the following Indian cities hosted the 13^(th) Session of the Conference of Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP 13)?

(a) New Delhi
(b) Gandhinagar
(c) Noida
(d) Wardha

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Q80. A _____ is an ordered list in which all insertions and deletions are made at one end.

(a) queue
(b) stack
(c) rear
(d) front

Q81. Who among the following is the Chief Election Commissioner of India as of January 2021?

(a) Sudeep Jain
(b) Rajiv Kumar
(c) Sunil Arora
(d) Umesh Sinha

Q82. As of 30 April 2020, the annual entitlement to eligible farmers under the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme was:

(a) Rs. 6,000
(b) Rs. 7,000
(c) Rs. 3,000
(d) Rs. 5,000

Q83. Who among the following cricketers has won the ICC Spirit of Cricket Award 2020?

(a) MS Dhoni
(b) Rohit Sharma
(c) Virat Kohli
(d) Hardik Pandya

Q84. Lionel Messi, one of the winners of the 'Laurel Sportsman of the Year 2020', plays football for:

(a) Brazil
(b) Argentina
(c) The Netherlands
(d) Spain

Q85. Which scientific instrument is used to measure the height of an aircraft above a fixed level?

(a) Barometer
(b) Fathometer
(c) Wattmeter
(d) Altimeter

Q86. Who among the following has become the youngest Mayor of Thiruvananthapuram Corporation, Kerala, in December 2020?

(a) Rekha Priyadarshini
(b) Sanjeev Ganesh Naik
(c) Sabitha Beegam
(d) Arya Rajendran

Q87. Which of the following satellites is India's first Earth-imaging satellite in a geostationary orbit?

(a) Oceansat-3
(b) RISAT-1A
(c) RISAT-2BR2
(d) GISAT-1

Q88. The second Round Table Conference was held in 1931 in which of the following countries?

(a) South Africa
(b) USA
(c) The UK
(d) Italy

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Q89. _____ is the application of plant and soil science to crop production.

(a) Bryology
(b) Agronomy
(c) Anatomy
(d) Agrostology

Q90. As of 30 April 2020, who among the following was the Chairman of' the Eastern Zonal Council?

(a) Amit Shah
(b) Rajnath Singh
(c) Narendra Modi
(d) Kiren Rijiju

Q91. Laokhowa Wildlife Sanctuary lies on the southern bank of which river in the north-eastern states of India?

(a) Barak
(b) Brahmaputra
(c) Gomti
(d) Subansiri

Q92. Who among the following sultans of the Delhi Sultanate appointed Ghiyasuddin Balban as his/her Prime Minister?

(a) Nasiruddin Mahmud
(b) Muizuddin Bahram
(c) Shamsuddin Iltutmish
(d) Razia

Q93. Which of the following chemicals is responsible for the yellow colour in urine?

(a) Albumin
(b) Urobilin
(c) Bilirubin
(d) Creatinine

Q94. In which of the following years was ADB (Asian Development Bank) established?

(a) 1978
(b) 1966
(c) 1980
(d) 1959

Q95. Which of the following species was among the species classified as 'endangered migratory species' by the UN's Convention on Conservation of Migratory Species in February 2020?

(a) Bengal Tiger
(b) Asiatic Lion
(c) Hoolock Gibbons
(d) Bengal Florican

Q96. Who among the following won the 'EY Entrepreneur of the Year 2019' award?

(a) Uday Kotak
(b) Tuhin Parikh
(c) Adi Godrej
(d) Kiran Mazumdar-Shaw

Q97. Indian athlete Joshna Chinappa represents the country in:

(a) discus throw
(b) judo
(c) kabaddi
(d) squash

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Q98. In February 2020, the Kerala Chief Minister launched a mobile application named 'Yodhavu' (Warrior). The purpose of this application is combating:

(a) eve-teasing
(b) terrorism
(c) child trafficking
(d) drug menace

Q99. Who among the following is the author of the book '40 years with Abdul Kalam - Untold Stories'?

(a) Sarabjit Singh
(b) Y. S. Rajan
(c) Sivathanu Pillai
(d) Chetan Bhagat

Q100. Which of the following states has a marine sanctuary called Gahirmatha Marine Sanctuary?

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

ANSWER KEY

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

SOLUTIONS

Q1. Answer: (b) BCAD

The correct answer is 'BCAD'.

Key Points

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

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

• Sentence B in the given question is the starting of an incident. Sir Rowland de Boys died and entrusted his son to take care of his eldest brother Oliver.

• Sentence C will be the next sentence as Oliver mistreated the Boy (Son of Rowland de Boys i.e. Orlando).

• Sentence A will be the next sentence because Orlando's father Rowland de Boys was famous for his gentle manners and fine appearance. This made Oliver jealous and he wished to destroy Rowland's image.

• Lastly, Sentence D will be used.

• Thus, the sequence becomes:

• B: When Orlando's father, Sir Rowland de Boys, died, he left his youngest son to the care of his eldest brother Oliver.

• C: Oliver however proved an unworthy brother and neglected the boy.

• A: As time passed, he grew jealous of his brother's fine appearance and gentle manners, and at last, he wished to destroy him.

• D: It was Oliver who persuaded his brother to wrestle with the famous man who had killed so many others in days past, and it

was this cruel brother's neglect of him that made Orlando say that he wished to die.

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

Correct Sequence: When Orlando's father, Sir Rowland de Boys, died, he left his youngest son to the care of his eldest brother Oliver. Oliver however proved an unworthy brother and neglected the boy. As time passed, he grew jealous of his brother's fine appearance and gentle manners, and at last, he wished to destroy him. It was Oliver who persuaded his brother to wrestle with the famous man who had killed so many others in days past, and it was this cruel brother's neglect of him that made Orlando say that he wished to die.

Q2. Answer: (d) Mother told Megha to leave for her office then.

The solution is in Hindi. Read it online.

Q3. Answer: (b) Secluded

The solution is in Hindi. Read it online.

Q4. Answer: (a) No improvement

The solution is in Hindi. Read it online.

Q5. Answer: (c) Cartographer

The solution is in Hindi. Read it online.

Q6. Answer: (b) Endevour

The solution is in Hindi. Read it online.

Q7. Answer: (b) was happy with

The solution is in Hindi. Read it online.

Q8. Answer: (a) if you went

The solution is in Hindi. Read it online.

Q9. Answer: (a) Retrospection

The solution is in Hindi. Read it online.

Q10. Answer: (a) Discuss private matters in front of others

The solution is in Hindi. Read it online.

Q11. Answer: (d) conveys a great deal

The solution is in Hindi. Read it online.

Q12. Answer: (d) Warm

The solution is in Hindi. Read it online.

Q13. Answer: (d) Appear

The solution is in Hindi. Read it online.

Q14. Answer: (a) CADB

The correct answer is 'CADB'.

Key Points

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

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

• Sentence C in the given question is the starting of an incident. It tells us that the merchant was attacked by a highway robber.

• Sentence A will be the next sentence because a robber always demands money/ valuables from the person he confronts.

• Sentence D will be the next sentence because it is connected with Sentence A.

• Lastly, Sentence B will be used.

• Thus, the sequence becomes:

• C: A merchant was confronted by a highway robber.

• A: The robber demanded all his valuables or threatened to kill him.

• D: The merchant was scared to death.

• B: But he put up a brave front and challenged the robber.

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

Correct Sequence: A merchant was confronted by a highway robber. The robber demanded all his valuables or threatened to kill him. The merchant was scared to death. But he put up a brave front and challenged the robber.

Q15. Answer: (d) concerned

The solution is in Hindi. Read it online.

Q16. Answer: (a) Taru was fined by a traffic policeman for jumping the red light.

The solution is in Hindi. Read it online.

Q17. Answer: (b) Greive

The solution is in Hindi. Read it online.

Q18. Answer: (d) attempt

The solution is in Hindi. Read it online.

Q19. Answer: (c) Compress

The solution is in Hindi. Read it online.

Q20. Answer: (c) based at

The solution is in Hindi. Read it online.

Q21. Answer: (d) when

The correct answer is 'when'.

Key Points

• The given passage is about the author's travel in 'LANSA Airlines flight 508'.

• In the first blank the most appropriate conjunction is 'when'.

• We use when as a conjunction meaning ‘at the time that’.

• The clause with when is a subordinate clause (sc) and needs a main clause (mc) to complete its meaning.

• If the when-clause comes before the main clause, we use a comma.

• Example: (SC)When I was young, (MC)there were no houses here.

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

So the complete passage is:- I have always enjoyed flying. I wasn't afraid (1) when my mother and I boarded LANSA Airlines flight 508. Some people had (2) given up flying LANSA because of a recent crash. But (3) mother and I had a good reason for flying: I had just (4) finished secondary school in Lima, and we wanted to (5) spend Christmas with my father in our jungle hut.

Additional Information

• What is a Conjunction?

• A conjunction is a word that connects or joins clauses, words, phrases together in a sentence.

• Conjunctions are used to coordinate words in a sentence.

• Three types of conjunctions are Coordinating Conjunctions, Subordinating Conjunctions, Correlative Conjunctions.

Q22. Answer: (d) given up

The solution is in Hindi. Read it online.

Q23. Answer: (d) mother

The correct answer is 'mother'.

Key Points

• The given passage is about the author's travel in 'LANSA Airlines flight 508'.

• The first line of the given passage is "I wasn't afraid when my mother and I boarded LANSA Airlines flight 508...".

• This line clearly tells us that author traveled with his mother in 'LANSA Airlines flight 508'.

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

So the complete passage is:- I have always enjoyed flying. I wasn't afraid (1) when my mother and I boarded LANSA Airlines flight 508. Some people had (2) given up flying LANSA because of a recent crash. But (3) mother and I had a good reason for flying: I had just (4) finished secondary school in Lima, and we wanted to (5) spend Christmas with my father in our jungle hut.

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Q24. Answer: (a) finished

The correct answer is 'finished'.

Key Points

• The given passage is about the author's travel in 'LANSA Airlines flight 508'.

• In filler 4, the most appropriate verb is 'finished'.

• The sentence "I had just (4) _____ secondary school in Lima..." is in the past perfect tense.

• The past perfect tense is for talking about something that happened before something else.

• The structure of past perfect tense is "Subject + HAD (auxiliary verb- have) + V3 (third form of main verb – past participle)".

• Example: I had bought a phone before you came here.

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

So the complete passage is:- I have always enjoyed flying. I wasn't afraid (1) when my mother and I boarded LANSA Airlines flight 508. Some people had (2) given up flying LANSA because of a recent crash. But (3) mother and I had a good reason for flying: I had just (4) finished secondary school in Lima, and we wanted to (5) spend Christmas with my father in our jungle hut.

Q25. Answer: (a) spend

The solution is in Hindi. Read it online.

Q26. Answer: (d) [figure]

The correct mirror image of the given combination when the mirror is placed at 'PQ' is shown below:

Hence, ‘option 4’ is the correct answer.

Q27. Answer: (c) 24 : 56

The logic is:

6 x 3 = 18 and 6 x 7 = 42

Similarly,

8 x 3 = 24 and 8 x 7 = 56

Hence, ‘24 : 56’ is the correct answer.

Q28. Answer: (c) Ottawa

The logic is:

Indonesia : Jakarta → Jakarta is the capital of Indonesia.

Similarly,

Canada : ? → Ottawa is the capital of Canada.

Hence, ‘Ottawa’ is the correct answer.

Additional Information

Country	Capital
Oman	Muscat
Qatar	Doha
South Korea	Seoul

Q29. Answer: (b) {10, 13, 17}

The logic followed here is:

Sum of all numbers = 40

Given: {5, 15, 20}

5 + 15 + 20 = 40

Option 1: {24, 8, 18}

= 24 + 8 + 18

= 50 ≠ 40

Option 2: {10, 13, 17}

= 10 + 13 + 17

= 40

Option 3: {4, 14, 24}
= 4 + 14 + 24
= 42 ≠ 40
Option 4: {9, 14, 19}
= 9 + 14 + 19
= 42 ≠ 40
Hence, the correct answer is "{10, 13, 17}".

Q30. Answer: (a) 15

Indians that are either Athletes or Olympians but NOT both is shown below:
Number of Indians that are either Athletes or Olympians but NOT both = 10 + 3 + 2 = 15
Hence, '15' is the correct answer.

Q31. Answer: (d) 16

The total number of triangles in the given figure is shown below:
Hence '16' is the correct answer.

Q32. Answer: (c) [figure]

The option that follows the manner in which the paper is folded and punched is shown below:
Hence, 'option 3' is the correct answer.

Q33. Answer: (c) WFHLYBB

The pattern followed here is:
According to the alphabetical positions of the letters,
Here letters of the word at odd position are coded according to the equivalent opposite letter of a particular letter of the word.
Similarly,
Hence, 'WFHLYBB' is the correct answer.

Q34. Answer: (a) (29, 7, 203)

The logic is:
(23, 4, 92) → 23 × 4 = 92
Similarly,
(29, 7, 203) → 29 × 7 = 203
Hence, '(29, 7, 203)' is the correct answer.

Q35. Answer: (a) 79

The logic is:
4 × 2 - 1 = 8 - 1 = 7
7 × 2 - 3 = 14 - 3 = 11
11 × 2 - 5 = 22 - 5 = 17
17 × 2 - 7 = 34 - 7 = 27
27 × 2 - 9 = 54 - 9 = 45
45 × 2 - 11 = 90 - 11 = 79
Hence, '79' is the correct answer.

Q36. Answer: (a) [figure]

The option in which the given figure is embedded when rotation is NOT allowed is shown below:
Hence, 'option 1' is the correct answer.

Q37. Answer: (b) 87397

According to the alphabetical positions of the letters,
The pattern followed here is:
At first, letters are replaced according to the equivalent opposite letter of a particular letter of the word.

Letter	M	A	C	H	I	N	E

Opposite Letter	N	Z	X	S	R	M	V
Place Value	14	26	24	19	18	13	22
Sum of digits of Place Value	1 + 4 = 5	2 + 6 = 8	2 + 4 = 6	1 + 9 = 10 10 = 1 + 0 = 1	1 + 8 = 9	1 + 3 = 4	2 + 2 = 4
Code	5	8	6	1	9	4	4

Similarly,

Letter	S	T	O	R	K
Opposite Letter	H	G	L	I	P
Place Value	8	7	12	9	16
Sum of digits of Place Value	8	7	1 + 2 = 3	9	1 + 6 = 7
Code	8	7	3	9	7

Hence, '87397' is the correct answer.

Q38. Answer: (a) Only conclusion III follows.

The least possible Venn diagram is:

Conclusions:

I. All gloves are scales. → False (As, there is no definite relation between gloves and scales. Hence, false)

II. Some gloves are scales. → False (As, there is no definite relation between gloves and scales. Hence, false)

III. Some scales are routers. → True (All combs are scales and Some routers are combs → Some scales are routers)

IV. All routers are scales. → False (All combs are scales and Some routers are combs → Some routers are scales)

Hence, only conclusion III follows.

Q39. Answer: (a) K Z R S K Z

Given sequence: Q _ _ R R K Z _ _ K Z R T _ _ R

By checking options and substituting accordingly.

1. K Z R S K Z → Q K Z R / R K Z R / S K Z R / T K Z R.

♦ Here 1st letter is increased by +1.

♦ Q + 1 = R; R + 1 = S; S + 1 = T

2. Q Z R S P R → Q Q Z R / R K Z R / S K Z R / T P R R

3. K Z R P R Z → Q K Z R / R K Z R / P K Z R / T R Z R

4. Q R Z S P R → Q Q R R / R K Z Z / S K Z R / T P R R

♦ Option (1) gives a pattern of Q K Z R / R K Z R / S K Z R / T K Z R.

Hence, 'K Z R S K Z' is the correct answer.

Q40. Answer: (b) ZFPRIN

The pattern followed here is:

According to the alphabetical positions of the letters,

Similarly,

Hence, 'ZFPRIN' is the correct answer.

Q41. Answer: (c) [figure]

The figure that will come next in the series is shown bellow:

Figures are moving in an anti-clockwise direction at an angle of 90º. Symbols change as the pattern is shown above. The first symbol changes in second figure, the second symbol changes in third figure, the third symbol changes in fourth figure, so again the first symbol will change in fifth figure.

Hence, 'option 3' is the correct answer.

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Q42. Answer: (a) GBTV

The pattern followed here is:

According to the alphabetical positions of the letters,

1.

First and Third letters are equivalent opposite letters of each other, but The equivalent opposite letter of B is Y and not V.

2.

First and Third and Second and Fourth letters are equivalent opposite letters of each other.

3.

First and Third and Second and Fourth letters are equivalent opposite letters of each other.

4.

First and Third and Second and Fourth letters are equivalent opposite letters of each other.

Hence, 'GBTV' is the odd one out.

Alternate MethodThe logic followed here is:

Except option 1, sum of the place value of the letter of all the options is 54.

Option 1 → GBTV → 7 + 2 + 20 + 22 = 51

Option 2 → CGXT → 3 + 7 + 24 + 20 = 54

Option 3 → HDSW → 8 + 4 + 19 + 23 = 54

Option 4 → DJWQ → 4 + 10 + 23 + 17 = 54

Thus option 1 is odd one.

Hence, the correct answer is "Option 1".

Q43. Answer: (b) Mother-in-law

By using the symbols in the table given below, we can draw the following family tree:

Clearly, the Lady is Mother-in-law of Sukanya.

Hence, 'Mother-in-law' is the correct answer.

Q44. Answer: (a) Chair : Bench

The logic is:

Car : Truck → Car and Truck are name of Vehicles.

Similarly,

Chair : Bench → Chair and Bench are name of furniture.

Hence, 'Chair : Bench' is the correct answer.

Q45. Answer: (a) Rs. 220

Krishna gave 1/9 of his savings to his son, 3/4 of the remaining to his first daughter, and the rest to his second daughter.

Let the total savings of Krishna be Rs. a

Savings Krishna gave to his son = a/9

Remaining amount = a - a/9 = 8a/9

Savings Krishna gave to his first daughter = (8a/9)(3/4) = 2a/3

Savings Krishna gave to his second daughter = 8a/9 - 2a/3 = 2a/9

If the first daughter received Rs. 880 more than the second one

According to question:

2a/ 3 - 2a/9 = 880

=> (6a - 2a)/9 = 880

=> 4a/9 = 880

=> a = (880 × 9)/4

=> a = 1980

Amount of money the son got = a/9 = 1980/9 = 220

Hence, '220' is the correct answer.

Q46. Answer: (d) 589

The logic is:

1. 678 → 678 is divisible by 3

2. 234 → 234 is divisible by 3

3. 345 → 345 is divisible by 3

4. 589 → 589 is not divisible by 3

Hence, '589' is the odd one out.

Q47. Answer: (a) Ridiculous

The description is as follows:

Option	Description	
1.	Ridiculous	deserving or inviting derision or mockery; absurd.
2.	Gorgeous	beautiful; very attractive.
3.	Exalted	of a noble, elevated, or lofty nature
4.	August	respected and impressive.

All words except 'Ridiculous' are synonyms of each other. Gorgeous, Exalted and August means something that is attractive or impressive.

Hence, 'Ridiculous' is the odd one out.

Q48. Answer: (d) 5

As 3 is the common face on both the dice, keeping it constant and then rotating in clockwise direction, we get the faces opposite to each other, which is shown below:

3	5	2
3	6	4

Clearly, '5' will be at the top if '6' is at the bottom.

Hence, '5' is the correct answer.

Q49. Answer: (b) ÷, +, ×, −

1. ×, +, ÷, −

Given equation: 216 * 6 * 8 * 64 * 48 = 500

After replacing the '*' by the symbols given in the option, we get:

L.H. S = 216 × 6 + 8 ÷ 64 – 48

= 1296 + 0.125 – 48

= 1296.125 – 48

= 1248.125 ≠ R.H.S

2. ÷, +, ×, −

Given equation: 216 * 6 * 8 * 64 * 48 = 500

After replacing the '*' by the symbols given in the option, we get:

L.H. S = 216 ÷ 6 + 8 × 64 – 48

= 36 + 512 – 48

= 548 – 48

= 500 = R.H.S

3. ÷, −, ×, +

Given equation: 216 * 6 * 8 * 64 * 48 = 500

After replacing the '*' by the symbols given in the option, we get:

L.H. S = 216 ÷ 6 - 8 × 64 + 48

= 36 – 512 + 48

= 84 – 512

= -428 ≠ R.H.S

4. ×, +, −, ÷

Given equation: 216 * 6 * 8 * 64 * 48 = 500

After replacing the '*' by the symbols given in the option, we get:

L.H. S = 216 × 6 + 8 - 64 ÷ 48
= 1296 + 8 – 1.34
= 1304 – 1.34
= 1302.66 ≠ R.H.S
Hence, '÷, +, ×, –' is the correct answer.

Q50. Answer: (d) 3, 6, 4, 2, 1, 5

Select the correct option that indicates the arrangement of the given places in a logical and meaningful order.
3. Dehradun
6. Agra
4. Bhopal
2. Nagpur
1. Hyderabad
5. Madurai
Name of cities from North to South in India.
Hence, '3, 6, 4, 2, 1, 5' is the correct answer.

Q51. Answer: (b) 6 : 5

Calculation:
Total production of sugar in 2014 and 2018 = (280 + 440)
=> 720
Total export of sugar in 2015 and 2019 = (220 + 380)
=> 600
Required Ratio = (720 : 600)
=> 6 : 5
Therefore The ratio of the total production of sugar in 2014 and 2018 to the total export in 2015 and 2019 is 6 : 5

Q52. Answer: (a) 100039

Calculation:
The smallest 6 digit number = 100000
=> 100000 ÷ 71
=> 1408 is quotient and 32 is remainder
Required number = 100000 - 32
=> 99968
required 6 digits number
99968 + 71
=> 100039
Therefore The least 6-digit number that is divisible by 71 is 100039

Q53. Answer: (b) 15

Given:
angle Q = 70° and angle R = 55°
PT is perpendicular to QR
Concept used:
The sum of all the three angles of triangle is 180°
The angle made at the center is twice the angle made at the circumference on the same arc of a circle
Add the point O and R
Calculation:
In right angles triangle ΔPTQ [PT ? QR]
So, angle PQT = 70°
=> angle QPT = 180° – (70° + 90°)
=> angle QPT = 180° – 160°
=> angle QPT = 20°

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Also, In ΔPQR
=> angle P = 180° – (70° + 55°)
=> angle P = (180° – 125°)
=> angle P = 55°
Now,
angle POR = 2 × angle PQR [Angle at centre are doubled of angle at circumference]
angle POR = (2 × 70°)
=> angle POR = 140°
Then,
In ΔPOR
=> PO = OR [radius]
So,
=> angle OPR = angle ORP [Angle opposite to equal sides are equal in length]
Now,
=> angle OPR = (180° – angle POR)/2
=> angle OPR = (180° – 140°)/2
=> angle OPR = (40/2)
=> angle OPR = 20°
Then,
=> angle TPS = angle QPR – (angle QPT + angle OPR)
=> angle TPS = 55° – (20° + 20°)
=> angle TPS = 55° – 40°
=> angle TPS = 15°
Therefore The required value of angle TPS is 15

Q54. Answer: (d) -7 and -3

Given:
$a + b + c = 5$ and $a^3 + b^3 + c^3 – 3abc = 18$
Calculation:
$a^3 + b^3 + c^3 – 3abc = (a + b + c) [(a + b + c)^2 – 3(ab + bc + ca)]$
=> $185 = 5 [5^2 – 3 × (ab + bc + ca)]$
=> $185 = 5 [25 – 3 × (ab + bc + ca)]$
=> $3 × (ab + bc + ca) = 25 – 37$
=> $3 × (ab + bc + ca) = -12$
=> $ab + bc + ca = (-12/3)$
=> -4
Therefore The value of ab + bc + ac lies between -7 and -3
Shortcut TrickWe can solve the question by Value putting method.
Let the value of 'c' = 0
Now,
=> $a + b = 5$ and $a^3 + b^3 = 185$
By making 'c' zero, we now just have to find → 'ab'.
If,
=> $a + b = k$, then $a^3 + b^3 = k^3 - 3k × ab$.
=> $a^3 + b^3 = (5)^3 - 3 × 5 × ab$.
=> $185 = 125 - 15ab$.
=> $15ab = 125 - 185$
=> $15ab = -60$
Therefore ab = -4, which lies between -7 and -3.

Q55. Answer: (b) Rs. 9,281.25

Given:

Principal = Rs. 99,000

Rate of SI = 121/2%

Time period = 9 months

Formula used:

SI = (P× R × T)/100

Where P = principal amount

R = Rate of si

And T = time period

Calculation:

SI = (99,000 × 25/2 × 9/12)/100

=>Rs. 928,125/100

=> Rs. 9281.25

Therefore SI is Rs. 9,281.25

Q56. Answer: (b) 160

Given:

Ratio of white mobile covers and black mobile covers = 4 : 7

Number of black mobile covers = 280

Calculation:

Let the ratio of white mobile covers and black mobile covers be 4x and 7x respectively

According to question

=> 7x = 280

=> x = 40

Now, Number of white mobile covers = 4x

=> (4 × 40)

=> 160

Therefore Number of white mobile covers is 160

Q57. Answer: (d) 16

Calculation:

Sales turnover of all the companies in 2015-16 = (1250 + 1125 + 900 + 1220 + 1290)

=> 5785

Average sales turnover = 5785/5

=> 1157

Sales turnover of the companies A, C and E in 2014-15 = (1060 + 850 + 1080)

=> 2990

Average sales turnover = 2990/3

=> 996.66

Required percentage = [(1157 – 996.66)/996.66] × 100

=> (160.34/996.66) × 100

=> 16.08 ≈ 16

Therefore Required percentage is 16

Q58. Answer: (a) 1

Given:

3u + 2v = 7 and uv = 2

Concept used:

$(a + b)^2 = (a – b)^2 + 4ab$

Calculation:

=> $(3u + 2v)^2 = 7^2$

=> $(3u – 2v)^2 + 4 × 3u × 2v = 49$

=> $(3u – 2v)^2 + 24uv = 49$

=> $(3u – 2v) = \sqrt{(49 – 24 \times 2)}$

=> $(3u – 2v) = \sqrt{1}$

=> $(3u – 2v) = +1$ or -1

Therefore The value of $(3u - 2v)$ is 1

Q59. Answer: (b) 15%

Given:

Selling Quantity of wheat = 92 kg

Gain on selling of wheat = SP of 12 kg wheat

Formula used:

CP = SP – Gain

Gain % = (Gain/CP) × 100

Calculation:

Let the selling price of each kg of wheat be Rs. x

SP of 92 kg wheat = Rs. 92x

SP of 12 kg wheat = Rs. 12x = Gain

CP = Rs. 92x – Rs. 12x

=> Rs. 80x

Now, Gain % = (12/80 × 100)

=> 15%

Therefore His gain percentage is 15%

Q60. Answer: (c) $2\sqrt{2}$

Given:

Cot $\theta = \sqrt{2} + 1$.

Concept Used:

Cot θ = Base/Perpendicular

Cosec θ = Hypotenuse/Perpendicular

Sec θ = Hypotenuse/Base

Calculation:

Cot θ = B/P = $(\sqrt{2} + 1)/1$

By Pythagoras theorem,

=> H2 = P2 + B2

=> H2 = 12 + $(\sqrt{2} + 1)2$

=> H2 = 1 + 2 + 1 + $2\sqrt{2}$

=> H2 = 4 + $2\sqrt{2}$

Cosec θ × Sec θ

=> H/P × H/B

=> H2/BP

=> $(4 + 2\sqrt{2})/(\sqrt{2} + 1) \times 1$

=> $(4 + 2\sqrt{2})/(\sqrt{2} + 1)$

=> $[(\sqrt{2} + 1) \times (2\sqrt{2})] / (\sqrt{2} + 1)$

=> $2\sqrt{2}$

Therefore The value of cosecθsecθ is $2\sqrt{2}$

We know,

Cosec2θ = 1 + Cot2θ

Sec2θ = 1 + Tan2θ

So, Sec θ × Cosec θ

=> $\sqrt{(1 + \tan 2\theta)} \times \sqrt{(1 + \text{Cot}2\theta)}$

=> $\sqrt{[1 + \{1/(\sqrt{2} + 1)\}2] \times [1 + (\sqrt{2} + 1)2]}$ ....(i)

The value of $1/(\sqrt{2} + 1)$

=> 1× (√2 - 1) /(√2 + 1) × (√2 - 1)
=> (√2 - 1)/2 - 1
=> (√2 - 1)
Putting in equation (i)
=> √ [1 + {1/(√2 + 1)}2] × [1 + (√2 + 1)2]
=> √ [1 + (√2 - 1)2] × [1 + (√2 + 1)2]
=> √(4 - 2√2) × (4 - 2√2)
=> √16 - 8 = √8
=> 2√2
Therefore The value of Cosecθsecθ is 2√2.

Q61. Answer: (d) 428

Given:
SP of an article = Rs. 372
Discount % = 25% and 38%
Formula used:
Discount = Marked price – selling price
Calculation:
Let the marked price be x
=> x × (100 – 25/100) × (100 – 38/100) = 372
=> x × (75/100) × (62/100) = 372
=> x × (3/4) × (31/50) = 372
=> x = 800
Now, Marked price = Rs. 800
Then, Discount = Rs. (800 – 372)
=> Rs. 428
Therefore Total discount is Rs. 428

Q62. Answer: (b) 4 days

Given:
Time taken to complete the work by A = 6 days
Time taken to complete the work by B = 8 days
Formula used:
Total work = Efficiency × Time
Calculation:
LCM of 6 and 8 = 24 units = Total work
Efficiency of A = 24/6 = 4 units/day
Efficiency of B = 24/8 = 3 units/day
Work done by A and B together for 3 days = (3 × 7) = 21 units
Remaining work = (24 – 21) units = 3 units
Efficiency of C = 3/2 units = 1.5 units/day
3/4 of the total work = (3/4) × 24 units
=> 18 units
Required time taken by B and C = 18 ÷ (3 + 1.5)
=> 4 days
Therefore Required time taken is 4 days

Q63. Answer: (c) 10

Shortcut Trick
Divide the given equation $2x^2 - 6x = 1$ by 2x to normalize the x term.
We get: $x - 3 = 1/(2x) \Rightarrow x - 1/(2x) = 3$.
Apply the square logic: $(a - b)^2 = a^2 + b^2 - 2ab$.
Result = $3^2 + 2 \times (x) \times (1/2x) = 9 + 1 = 10$.

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Therefore The correct answer is 10.

Alternate Method

Given: $2x^2 - 6x = 1$

Formula Used: $(a - b)^2 = a^2 + b^2 - 2ab$

Step-by-step Calculation:

=> $2x^2 - 6x = 1$

=> $2x^2 - 1 = 6x$

=> Dividing both sides by 2x:

=> $(2x^2 / 2x) - (1 / 2x) = (6x / 2x)$

=> $x - 1/(2x) = 3$

=> Now, squaring both sides:

=> $(x - 1/(2x))^2 = 3^2$

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

=> $x^2 + 1/(4x^2) - 1 = 9$

=> $x^2 + 1/(4x^2) = 9 + 1$

=> $x^2 + 1/(4x^2) = 10$

Therefore The correct answer is 10.

Additional Information

Algebraic Identity for Squares

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

Reciprocal Identity Shortcut

If $x - 1/x = k$, then $x^2 + 1/x^2 = k^2 + 2$. If the coefficients are different, like $ax - 1/bx = k$, then $a^2x^2 + 1/b^2x^2 = k^2 + 2(a/b)$.

Cubic Expansion

If $x - 1/x = k$, then $x^3 - 1/x^3 = k^3 + 3k$.

Q64. Answer: (a) √(7/3)

Given:

$5\sin2\theta = 3(1 + \cos\theta)$

Concept used:

a2 – b2 = (a + b)(a – b)

$\text{cosec}\theta$ = Hypotenuse/Perpendicular

$\text{Sec}\theta$ = Base/Perpendicular

Calculation:

$5\sin2\theta = 3(1 + \cos\theta)$

=> $5(1 - \cos^2\theta) = 3(1 + \cos\theta)$

=> $5(1 + \cos\theta)(1 - \cos\theta) = 3(1 + \cos\theta)$

=> $5(1 - \cos\theta) = 3$

=> $1 - \cos\theta = 3/5$

=> $\cos\theta = (1 - 3/5)$

=> $\cos\theta = 2/5$

According to question

=> $\text{cosec}\theta + \cot\theta = (5/\sqrt{21} + 2/\sqrt{21})$

=> $7/\sqrt{21}$

=> $7/\sqrt{7} \times \sqrt{3}$

=> $\sqrt{(7/3)}$

Therefore The value of $\text{cosec}\theta + \cot\theta$ is $\sqrt{(7/3)}$

Q65. Answer: (d) 97°

Given:

angle BEC = 125° and angle EBD = 28°

Calculation:

angle BEC + angle BED = 180°.... (linear pairs are complimentary)

=> 125° + angle BED = 180°
=> angle BED = 55°
In ΔDEB,
angle DEB + angle EBD + angle BDE = 180° .....(Angle sum property)
=> 55° + 28° + angle BDE = 180°
=>83° + angle BDE = 180°
=> angle BDE = 97°
angle BDE = angle BDC
Same segment theorem,
angle BAC = angle BDC
=> angle BAC = angle BDC = 97°
Therefore The measure of angle BAC is 97°

Q66. Answer: (d) 4 cm

Given:
AD = 15 cm and DC = 10 cm
Concept used:
If all the three sides of a triangle are in proportion to the three sides of another triangle, then the two triangles are similar.
Calculation:
Let the value of CF be x cm
Now,
In ΔCDE and ΔCAB
=> CD/AC = CE/CB = DC/(AD + DC)
=> CD/AC = CE/CB = 10/(15 + 10)
=> CD/AC = CE/CB = 10/25
=> CD/AC = CE/CB = 2/5
Now,
In ΔCFE and ΔCDB
=> CF/CD = CE/CB = 2/5
Now,
=> x/10 = 2/5
=> 5x = 20
=> x = (20/5)
=> x = 4 cm
=> CF = 4 cm
Therefore The length of CF is 4 cm

Q67. Answer: (a) 1650

Given:
Average of electronic items sold in 2004, 2005, 2006 and 2007 = 18950
Average of electronic items sold in 2005, 2006, 2007 and 2008 = 21725
Number of items sold in 2008 = 12750
Concept used:
Sum of observations = Average × Number of observations
Calculation:
Total electronic items sold in 2004, 2005, 2006 and 2007 = 18950 × 4
=> 75800
Total electronic items sold in 2005, 2006, 2007 and 2008 = 21725 × 4
=> 86900
Difference between 2008 and 2004 = (86900 – 75800)
=> 11100
Required number of items sold in 2004 = (12750 – 11100)

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=> 1650

Therefore The number of items sold in 2004 is 1650

Q68. Answer: (c) 840

Given:

Perimeter of Rhombus = 148 cm

One diagonal = 24 cm

Formula used:

Perimeter of Rhombus = 4 × side

Area of Rhombus = 1/2 × d1 × d2

where, d1 and d2 are diagonals of rhombus

Calculation:

Perimeter = 4 × side

=> 148 = 4 × side

=> side = 37 cm

In right angled triangle ΔAOB,

=> $AB^2 = AO^2 + OB^2$

=> $(37)^2 = (12)^2 + OB^2$

=> $1369 = 144 + OB^2$

=> $OB^2 = (1369 – 144)$

=> $OB^2 = 1225$ cm²

=> OB = 35 cm

BD = 2 × OB

=> 2 × 35 cm

=> 70 cm

Area of Rhombus = (1/2 × 24 × 70) cm²

=> 840 cm²

Therefore Area of Rhombus is 840 cm²

Q69. Answer: (d) 192 km

Given:

Total time of journey = 7 hrs

Speed of Ashok in first half = 24 km/h

Speed of Ashok in second half = 32 km/h

Formula used:

Distance = speed × time

Calculation:

Let total distance be 2x

Time1 = Distance/speed

=> x/24 hrs

Time2 = Distance/speed

=> x/32 hrs

Total time = (Time1 + Time2)

=> 7 = (x/24 + x/32)

=> 7 = (4x + 3x)/96

=> 7 = (7x/96)

=> x = 96 km

Total distance = 2x

=> (2 × 96)

=> 192 km

Therefore Total distance covered by Ashok is 192 km

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Q70. Answer: (d) 9

Given:

(cosecθ + cot θ)/(cosecθ – cotθ) = 7

Formula used:

Cos²θ = 1 – sin²θ

Calculation:

(cosecθ + cotθ)/(cosecθ – cotθ) = 7

=> (cosecθ + cotθ = 7(cosecθ – cotθ)

=> 8cotθ = 6 cosecθ

=> (8cosθ)/sinθ = 6/sinθ

=> Cosθ = 3/4

=> Cos²θ = 9/16

=> Sin²θ = 1 – 9/16

=> Sin²θ = 7/16

=> (4sin²θ + 5)/(4sin²θ – 1) = (4 × 7/16 + 5)/(4 × 7/16 – 1)

=> (7/4 + 5)/(7/4 –1)

=> (27/4)/(3/4)

=> 9

Therefore The value of (4sin²θ + 5)/(4sin²θ – 1) is 9

Q71. Answer: (b) 60√3 cm

Given:

Sides of right -angled triangle = 20√ 3 cm and 15√ 3 cm

Formula used:

Hypotenuse² = Perpendicular² + Base²

Perimeter of triangle = a + b + c

Calculation:

The height and base of a right angled- triangle be 20√ 3 cm and 15√ 3 cm respectively

For right angled triangle,

Hypotenuse² = Perpendicular² + Base²

=> Hypotenuse² = (20√3)² + (15√3)²

=> Hypotenuse² = (1200) + (675)

=> Hypotenuse² = 1875

=> Hypotenuse = 25√3

Perimeter of triangle = (20√3 + 15√3 + 25√3) cm

=> 60√3 cm

Therefore Perimeter of triangle is 60√3 cm

Q72. Answer: (d) Rs. 10,000

Given:

Rita spends on house rent = 25%

On remaining income on food = 30%

Saving = Rs. 5250

Calculation:

Let the monthly salary of Rita be 100x

Amount spend on house rent = 25x

Remaining amount spend on food = 30% of 75x

=> 22.5x

Now, according to question

=> 100x – (25x + 22.5x) = 5250

=> 100x – 47.5x = 5250

=> 52.5x = 5250

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=> x = 100

Her monthly income = Rs. (100 × 100)

=> Rs. 10000

Therefore Her monthly income is 10000

Shortcut Trick=> 25% = (-1/4)

=> 30% = (-3/10)

Income	Saving
4	3
10	7
40	21

If,

=> Income = 40x, then Saving = 21x

=> 21x = 5250

Therefore x = 250

Therefore Monthly Income = 40x = 40 × 250 = Rs. 10,000.

Q73. Answer: (d) 14 : 9

Calculation:

Number of students in section E = 14% of 300

=> 42

Let the number of boys and girls in section E be 4x and 3x respectively

=> 4x + 3x = 42

=> 7x = 42

=> Number of girls in section E = (42/7x) × 3x

=> 18

Total number of students in section B = 18% of 300

=> 54

Number of girls in section B = 54 – 26

=> 28

Required ratio = 28 : 18

=> 14 : 9

Therefore Required ratio is 14 : 9

Q74. Answer: (c) 18

Concept Used:

Follow the BODMAS rule according to the table given below:

Calculation:

(11/8÷3/4)÷[(1/2 of11/2)÷(31/2 -11/4) of3/4-3/4÷21/4] of3/4

=> (9/8 ÷ 3/4) ÷ [(1/2 of 3/2) ÷ (7/2 – 5/4) of 3/4 – 3/4 ÷ 9/4] of 3/4

=> (9/8 × 4/3) ÷ [(3/4) ÷ (9/4) of 3/4 – 1/3] of 3/4

=> (3/2) ÷ [(3/4) ÷ 27/16 – 1/3] of 3/4

=> (3/2) ÷ [3/4 × 16/27 – 1/3] of 3/4

=> (3/2) ÷ [4/9 – 1/3] of 3/4

=> (3/2) ÷ [1/9] of 3/4

=> (3/2) ÷ 1/12

=> (3/2) × 12

=> 18

Therefore The required value is 18

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Q75. Answer: (a) 5

Calculation:

The total expenditure of the company in the year = (15 + 17.5 + 10 + 5 + 20 + 25 + 7.5)

=> 100

The expenditure on Research = 20

Required expenditure = 100/20

=> 5

Therefore Required expenditure is 5

Q76. Answer: (d) Itanagar

The correct answer is Itanagar.

• The Innovation Festival 2020 was celebrated in Itanagar.

Key Points

• The 'Innovation Festival' was celebrated at the Science Centre in Itanagar, Arunachal Pradesh.

• The festival is being organized by the Arunachal Pradesh State Council for Science & Technology in association with the National Innovation Foundation.

• The Festival is the first of its kind in the state.

• The aim of the festival is to promote the culture of innovation among all people of the state, especially in all the educational institutions.

Q77. Answer: (a) Ctrl + Z

The correct answer is Ctrl + Z.

• Ctrl + Z shortcut gives the command to undo the previous action.

Key Points

• Shortcuts in MS office:

Shortcut	Use
Ctrl + B	to toggle the Bold attribute
Ctrl + I	to toggle the Italic attribute
Ctrl + U	to toggle the Underline attribute
Ctrl + Q	to remove paragraph formatting
Ctrl + C	to copy the selected text to the clipboard
Ctrl + Z	to undo the last action
Ctrl + Y	to redo the last action
Ctrl + X	to cut selected text to the clipboard

Q78. Answer: (d) Buffalo

The correct answer is Buffalo.

• Buffalo is made to race in the traditional sport called 'Kambala' in Karnataka.

Key Points

• Kambala:

• Buffaloes and their owners participate in the traditional Kambala race.

• The race takes place in the coastal districts of Dakshina Kannada and Udupi of Karnataka and Kasaragod of Kerala and north Kerala from November to March.

• The sport is sponsored by local Tuluva landlords and households.

• Kambala racetrack is mostly a slushy paddy field, and the buffaloes are driven by a whip-lashing farmer.

Additional Information

• Jalikattu:

• The sport is also known as eru thazhuvuthal.

• Bulls are being used in this sport and the format of track and race remains the same.

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Q79. Answer: (b) Gandhinagar

The correct answer is Gandhinagar.

• Gandhinagar hosted the 13th Session of the Conference of Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP 13).

Key Points

• Conference of Parties (COP):

• Gandhinagar hosted the 13th Conference of Parties (COP) of the Convention on the Conservation of Migratory Species of Wild Animals (CMS).

• The theme of CMS COP13 was Migratory species connect the planet and we welcome them home.

• The mascot for CMS COP 13 was 'Gibi – The Great Indian Bustard'.

• Convention on Conservation of Migratory Species (CMS) is in force since 1983, under the aegis of the United Nations Environment Programme.

Important Points

• The Great Indian Bustard is a critically endangered species and has been accorded the highest protection status under the Wildlife Protection Act, 1972.

Q80. Answer: (b) stack

The correct answer is stack.

• A stack is an ordered list in which all insertions and deletions are made at one end.

Key Points

• A stack is an ordered list in which all insertions and deletions are made at one end that is called the top.

• A queue is an ordered list in which all insertions take place at one end that is at the rear, while all deletions take place at the other end, the front.

Q81. Answer: (c) Sunil Arora

The correct answer is Sunil Arora.

• Sunil Arora is the Chief Election Commissioner of India as of January 2021.

Key Points

• Chief Election Commissioner (CEC)

• The President appoints the Chief Election Commissioner, who has a tenure of 6 years, or up to the age of 65 years, whichever is earlier.

• The CEC enjoys the same status and the salary and perks as available to Judges of the Supreme Court.

• The Chief Election Commissioner can be removed from his office only in a manner and on the grounds prescribed for removal of Judge of the Supreme Court.

• Other Election Commissioners can be removed by the President on the recommendation of the Chief Election Commissioner.

• The Election Commission has the power of superintendence, direction and conduct of all elections to Parliament and the State Legislatures and of elections to the offices of the President and Vice-President.

• Sunil Arora was the Chief Election Commissioner of India in January 2021.

• He was the 23rd Chief Election Commissioner of India.

Additional Information

• The current Chief Election Commissioner of India is Rajiv Kumar.

Q82. Answer: (a) Rs. 6,000

The correct answer is Rs. 6,000.

Key Points

• Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):

• It is a Central Sector Scheme with 100% funding from the Government of India.

• It was launched on February 24 in 2019.

• It is implemented by the Ministry of Agriculture and Farmer's Welfare.

• Under this scheme, the Central government will transfer an amount of Rs 6,000 per year, in three equal instalments, directly into the bank accounts of all landholding farmers irrespective of the size of their landholdings.

• The aim of the scheme is to supplement the financial needs of the Small and Marginal Farmers (SMFs) in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income at the end of each crop cycle.

• The responsibility of identification of beneficiary farmer families rests with the State and UT Governments.

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Additional Information

• West Bengal is the only state that didn't implement the PM-KISAN scheme.

• The PM-KISAN Mobile App is developed and designed by the National Informatics Centre in collaboration with the Ministry of Electronics and Information Technology.

Q83. Answer: (a) MS Dhoni

The correct answer is MS Dhoni.

• MS Dhoni has won the ICC Spirit of Cricket Award of the Decade 2020.

Key Points

• Former India skipper MS Dhoni won the ICC Spirit of Cricket Award of the Decade 2020.

• He won the award for his gesture to call England Ian Bell back on the crease after he was ruled out by the umpire in unusual circumstances.

• MS Dhoni's gesture also got him awarded the Spirit of the Cricket award in 2011.

Additional Information

• Cricket:

• The first official cricket test match was played in the year 1877 between Australia and England in Melbourne.

• The First One Day International cricket match was played in the year 1971 between England and Australia in Melbourne.

• The first World Cup of one-day matches was played in 1975 in London.

• The apex institution of world cricket is the International Cricket Council (ICC) and its headquarters are now in Dubai.

• Earlier it was in Lords (England).

• The ICC was founded in 1909.

• The Board of Control for Cricket in India (BCCI) was formed in 1927.

Q84. Answer: (b) Argentina

The correct answer is Argentina.

• Lionel Messi, one of the winners of the ‘Laurel Sportsman of the Year 2020’, plays football for Argentina.

Key Points

• Lionel Messi:

• He is an Argentine footballer and plays as a forward for Ligue 1 club Paris Saint-Germain.

• He is also the captain of the Argentina national team.

• He has won a record six Ballon d'Or awards.

• In 2020, he became the first footballer to win the Laureus World Sportsman of the Year award.

• He is also the first athlete to win it coming from a team sport.

• Laureus World Sports Awards

• It is an annual award ceremony honouring individuals and teams from the world of sports.

• The award was established in 1999 by Laureus Sport for Good Foundation whose founding patrons were Daimler and Richemont.

Q85. Answer: (d) Altimeter

The correct answer is Altimeter.

• The altimeter is used to measure the height of an aircraft above a fixed level.

Key Points

• Altimeter:

• An altimeter is a device that measures altitude at a location's distance above sea level.

Additional Information

• A barometer is used to measure atmospheric pressure.

• A fathometer is used to measure the depth of water.

• A wattmeter is an instrument for measuring the electric active power.

Q86. Answer: (d) Arya Rajendran

The correct answer is Arya Rajendran.

• Arya Rajendran has become the youngest Mayor of Thiruvananthapuram Corporation, Kerala, in December 2020.

Key Points

• Arya Rajendran:

• She is the mayor of the Thiruvananthapuram Corporation.
• She is 22 years old (born 12 January 1999).
• She was elected from Mudavanmukal ward which belongs to Nemom Assembly Constituency from Communist Party of India (Marxist).
• At the age of 21 and was appointed as the mayor of the Thiruvananthapuram Corporation.
• She is the youngest mayor in the country.

Additional Information

• Sanjeev Ganesh Naik became the first mayor of the satellite city of Navi Mumbai at the age of 23.
• Sabitha Beegam is the first Muslim Mayor in India.
• She is also the first mayor of Kollam Corporation at the age of 23.

Q87. Answer: (d) GISAT-1

The correct answer is GISAT-1.

• GISAT-1 is India's first Earth-imaging satellite in a geostationary orbit.

Key Points

• Geo Imaging Satellite-1 (GISAT-1):
• It was launched using Geosynchronous Satellite Launch Vehicle-F10 (GSLV-F10).
• It was launched from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota.
• GISAT-1 is the first state-of-the-art agile Earth observation satellite that was placed in a Geostationary orbit.
• Objectives of the satellite are:
• To provide real-time imaging of large area region of interest at frequent intervals
• For quick monitoring of natural disasters, episodic events and any short term events
• To obtain spectral signatures for agriculture, forestry, mineralogy, disaster warning, cloud properties, snow & glaciers and oceanography.

Additional Information

• Satellite launching station, Sriharikota:
• It is a Satellite launching station of the Indian Space Research Organisation.
• It was renamed the Satish Dhawan Space Centre in the year 2002.
• Satish Dhawan was the former Chairman of the ISRO.
• The first satellite launched from the Satish Dhawan Space Centre was the Rohini 1A in 1979.
• Arumugam Rajarajan is the current chairman of Satish Dhawan Space Centre

Q88. Answer: (c) The UK

The correct answer is the UK.

• The Second Round Table Conference was held in 1931 in the UK.

Key Points

• Second Round Table Conference:
• The Second Round Table Conference took place in 1931 AD.
• The Second Round Table Conference was presided by Ramsay Macdonald, Prime Minister of Britain.
• The British Government refused to concede the basic nationalist demand for freedom on the basis of the immediate grant of dominion status with complete control over the defence, external affairs and finance.

Additional Information

• Mahatma Gandhi attended the Second Round Table Conference only.
• Tej Bahadur Sapru and Dr B.R. Ambedkar attended all three round table conferences.

Q89. Answer: (b) Agronomy

The correct answer is Agronomy.

• Agronomy is the application of plant and soil science to crop production.

Key Points

• Agronomy:
• It is the application of science and technology in the fields of agriculture with the application of plant and soil science to crop production.
• It also applies to biology, chemistry, economics, ecology, water science, pest management and genetics to the improvement and management of the major food crops of the world.

Additional Information

• Bryology is the branch of botany concerned with the scientific study of bryophytes.

• Anatomy is the science that studies the structure of the body and body parts.

• Agrostology is the branch of botany concerned with grasses.

Q90. Answer: (a) Amit Shah

The correct answer is Amit Shah.

• As of 30 April 2020, Amit Shah was the Chairman of the Eastern Zonal Council.

Key Points

• Zonal Councils:

• The Zonal Councils are the statutory bodies.

• They are established by the States Reorganisation Act of 1956.

• The act divided the country into five zones i.e. Northern, Central, Eastern, Western and Southern.

• Each zonal council consists of the following members:

• The home minister of the Central government.

• Chief ministers of all the States in the zone.

• Two other ministers from each state in the zone.

• The Administrator of each union territory in the zone.

• The Union Home Minister is ex-officio Chairman of the Zonal Councils.

Q91. Answer: (b) Brahmaputra

The correct answer is Brahmaputra.

• Laokhowa Wildlife Sanctuary lies on the southern bank of the Brahmaputra River.

Key Points

• Laokhowa Wildlife Sanctuary:

• It is located in Assam.

• The sanctuary lies on the southern bank of the Brahmaputra River.

• The wildlife sanctuary is a part of the Laokhowa-Burachapori ecosystem.

• It is an ideal habitat for Indian rhinoceros and Asiatic water buffaloes.

• Other animals found here are the royal Bengal tiger, Indian leopard, Indian boar, civet, leopard cat and hog deer.

Additional Information

• National parks in Assam are Kaziranga National Park, Dibru Saikhowa National Park, Orang National Park, Raimona National Park, Nameri National Park and Dehing Patkai National Park.

• Wildlife Sanctuaries in Assam are Hoollongapar Gibbon Sanctuary, Garampani Wildlife Sanctuary, East Karbi-Anglong Wildlife Sanctuary, Sonai Rupai Wildlife Sanctuary and Nambor Wildlife Sanctuary.

Q92. Answer: (a) Nasiruddin Mahmud

The correct answer is Nasiruddin Mahmud.

• Nasiruddin Mahmud appointed Ghiyasuddin Balban as his Prime Minister.

Key Points

• Nasiruddin Mahmud

• He was the son of Iltutmish.

• He was known as the Darvesi King.

• He appointed Ghiyasuddin Balban as his Prime Minister.

• Balban:

• He ruled from 1266 AD-1287 AD.

• He was a member of Chahalgani Chalisa.

• He broke the power of Chahalgani and restored the prestige of the crown.

• He created a strong centralised army and established the military department Diwan-i-Arz.

• He took up the title of Zil-i-Ilahi (a shadow of God) and impressed upon the people that the king was the deputy of God (Niyabat-i-Khudai).

• He insisted on the Iranian ceremonies of sijda and paibos.

• Balban started the festival of Navroz.

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• He adopted a policy of blood and iron.

• He was a patron of Persian literature and showed special favour to Amir Khusro.

Additional Information

• Shamsuddin Iltutmish introduced the silver coin (tanka) and the copper coin (jital).

• Razia Sultan was the first and last Muslim woman ruler of Medieval India.

Q93. Answer: (b) Urobilin

The correct answer is Urobilin.

• The Urobilin chemical is responsible for the yellow colour in urine.

Key Points

• Urobilin is also known as urochrome.

• It is a type of carboxylic acid that causes the yellow colour in urine.

• It is generated from the degradation of heme.

• Heme is a precursor of haemoglobin.

Additional Information

• Albumin is a protein made by the liver.

• It helps to keep fluid in the bloodstream so it doesn't leak into other tissues.

• Bilirubin is a yellow pigment that is made during the normal breakdown of red blood cells.

• Creatinine is a waste product that comes from the normal wear and tears on the muscles of the body.

Q94. Answer: (b) 1966

The correct answer is 1966.

• ADB (Asian Development Bank) was established in 1966.

Key Points

• Asian Development Bank(ADB):

• It was established on 19 December 1966.

• Its headquarters is in Manila, Phillippines.

• It has currently 68 members.

• Masatsugu Asakawa is the current President.

• The ADB is a social development organization that is dedicated to reducing poverty in Asia and the Pacific through inclusive economic growth, environmentally sustainable growth, and regional integration.

• ADB provide loans, grants and information sharing in infrastructure, health care services, financial and public administration systems, helping nations prepare for the impact of climate change or better manage their natural resources for its member states.

Important Points

• India is a member of ADB.

Q95. Answer: (d) Bengal Florican

The correct answer is Bengal Florican.

• Bengal Florican was among the species classified as ‘endangered migratory species’ by the UN's Convention on Conservation of Migratory Species in February 2020.

Key Points

• Great Indian Bustard, Asian Elephant and Bengal Florican have been classified as "endangered migratory species" by a UN Convention on Conservation of Migratory Species.

• Bengal Florican:

• It is a bustard species that is native to the Indian subcontinent, Cambodia, and Vietnam.

• Convention on the Conservation of Migratory Species of Wild Animals Conference of the Parties (CMS COP13):

• The meeting was concluded at Gandhinagar, Gujarat.

• The meeting was the first of a series of international nature-related meetings in 2020.

• Ten new species were added to CMS Appendices at COP13, out of these seven species were added to Appendix I, which provides the strictest protection and they are the Asian Elephant, Jaguar, Great Indian Bustard, Bengal Florican, Little Bustard, Antipodean Albatross and the Oceanic White-tip Shark.

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Q96. Answer: (d) Kiran Mazumdar-Shaw

The correct answer is Kiran Mazumdar-Shaw.

• Kiran Mazumdar-Shaw won the ‘EY Entrepreneur of the Year 2019’ award.

Key Points

• Kiran Mazumdar-Shaw:

• She is the founder of Biocon Limited and Biocon Biologics Limited.

• Dr Kiran Mazumdar Shaw was honoured with the EY Entrepreneur Of The Year Award 2019 and she also represented India at the World EOY Award.

Additional Information

• Adi Godrej was honoured with the Lifetime Achievement Award.

• He is the Chairman of the Godrej Group.

• Tuhin Parikh won the Transformational Impact Person of the Year.

• He is the Senior Managing Director-Real estate, Blackstone India.

• Uday Suresh Kotak is the executive vice-chairman and managing director of Kotak Mahindra Bank.

Q97. Answer: (d) squash

The correct answer is squash.

• Indian athlete Joshna Chinappa represents the country in squash.

Key Points

• Joshna Chinappa:

• She represents India in squash.

• She is the youngest Indian women's national champion.

• She is also the first Indian to win the British Junior Squash Championship title in 2005 in the under-19 category.

Additional Information

• Terminologies used in Squash are boast, nick, striker, tight, and tin.

• Kamalpreet Kaur is associated with discus throw.

• Thoudam Kalpana Devi is associated with Judo.

Q98. Answer: (d) drug menace

The correct answer is drug menace.

• In February 2020, the Kerala Chief Minister launched a mobile application named 'Yodhavu' (Warrior). The purpose of this application is to combat the drug menace.

Key Points

• 'Yodhavu' (Warrior) is a mobile app through which the public can inform police about drug abuse and its distribution.

• It was launched by Chief Minister Pinarayi Vijayan.

• The main aim of launching the app is to curb the growing menace in the State.

• In this app, the informer's identity is kept secret.

Q99. Answer: (c) Sivathanu Pillai

The correct answer is Sivathanu Pillai.

• Sivathanu Pillai is the author of the book ‘40 years with Abdul Kalam - Untold Stories’.

Key Points

• A. Sivathanu Pillai is Known as the Father of Brahmos Aerospace.

• He is an Honorary Distinguished Professor at Indian Space Research Organisation.

• He is the author of the book 40 years with Abdul Kalam - Untold Stories.

Additional Information

• Books written by Y. S. Rajan are India 2020, The Scientific Indian and Way Beyond the Three Rs.

• Books written by Chetan Bhagat are Five Point Someone, One Night @ the Call Center, The 3 Mistakes Of My Life and Half Girlfriend.

Q100. Answer: (c) Odisha

The correct answer is Odisha.

• Odisha has a marine sanctuary called Gahirmatha Marine Sanctuary.

Key Points

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• Gahirmatha Marine Sanctuary:

• It is located in the Kendrapara district of Odisha.

• The sanctuary is the world's largest nesting beach for Olive Ridley Turtles.

• The Government of Orissa declared the area as Gahirmatha Marine Sanctuary in 1977 considering its ecological significance and diverse floral and faunal resources.

• The olive ridley sea turtles migrate from the pacific ocean through the coastal water of Sri Lanka in the Indian Ocean to the coastal water of Gahirmatha in the north.

Additional Information

• Simlipal National Park, Bhitarkanika National Park, Tikarpada Wildlife Sanctuary, Chilika Wildlife Sanctuary and Sunabeda Wildlife Sanctuary are some national parks and wildlife sanctuaries of Odisha.

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