Staff Selection Commission

Multi Tasking Staff Posts Examination

Model Paper

Test-I : GENERAL INTELLIGENCE

Directions (Q. 1-4) : In each of the following questions, select the related letter/word/ figure/ number from the given alternatives.

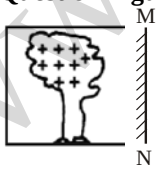
1. Manipuri : Manipur : : Kathakali : ?
   (1) Karnataka (2) Tamilnadu
   (3) Kerala (4) Andhra Pradesh
2. DEVIL : ABSFI : : OTHER :
   (1) MRFCP (2) RWKHU
   (3) LQEBO (4) LRECO
3. 5 : 36 : : 6 : ?
   (1) 48 (2) 50
   (3) 49 (4) 56
4. Outsider : Own : : Cheater : ?
   (1) Clever (2) Liar
   (3) True (4) Hard

Directions (Q. 5-8) : Find the odd word/letter/ number from the given alternatives.

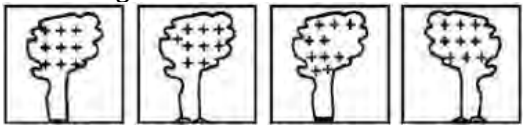
5. (1) 369 (2) 862
   (3) 462 (4) 761
6. (1) Pond - Lake (2) Pistol - Gun
   (3) Car - Bus (4) Church - Memorial
7. (1) (1, 0) (2) (2, 3)
   (3) (3, 8) (4) (4, 27)
8. (1) 8/9 (2) 64/16
   (3) 32/25 (4) 64/36

9. Which of the answer figures is the right mirror image of the question figure ?

Question Figure:

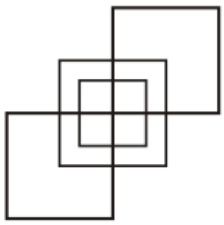


Answer Figures:



(1) (2) (3) (4)

10. A man is facing south. He turned 135° anticlockwise and then 180° clockwise. In which direction he is now?
    (1) North-East (2) South-West
    (3) South-East (4) West
11. Sachin is younger than Rahul by 7 years. If their ages are in the respective ratio of 7 : 9, then how old is Sachin?
    (1) 16 years (2) 18 years
    (3) 28 years (4) 24.5 years
12. In a certain code, TEACHER is written as VGCEJGT. How is CHILDREN written in the same code?
    (1) IJKMFTGP (2) EJKNEGTP
    (3) EJKNFGTO (4) EJKNFTGP
13. How many squares are there in the figure given below?



    (1) 12 (2) 13
    (3) 10 (4) 11
14. If day after tomorrow is Saturday, what day was three days before yesterday?
    (1) Wednesday (2) Monday
    (3) Sunday (4) Tuesday
15. If '+' = '×', '–' = '÷', '×' = '+' and '÷' = '–', then (18 + 10 × 20) – 8 ÷ 6 = ? is equal to:
    (1) 26 (2) 35
    (3) 29 (4) 19
16. Find the missing term in the series:
    J2Z, K4X, L7V, ?, N16R, O22P
    (1) M8Y (2) N9U
    (3) M11T (4) O10Q
17. Six persons A, B, C, D, E, F are sitting around a circular table as per the following conditions:
    1. A and B are opposite to each other.
    2. C is to the left of A.
    3. D and E are opposite to each other.
    4. F is to the right of D.

    Who is the left of B?
    (1) C (2) F

(3) E (4) D

Directions (Q. 18-19) : From the given options choose the missing number.

18.

25	18	36
12	17	16
5	2	?
60	153	96

(1) 5 (2) 4
(3) 3 (4) 6

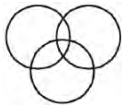
19.

3	4	9	16
5	6	25	36
7	8	?	64

(1) 49 (2) 63
(3) 18 (4) 16

20. In the following sequence some of the letters are missing, which are given in one of the four alternatives in that order. The correct option is:
a __ bc __ a __ bcda __ ccd __ bcd __
(1) acbdbb (2) adbcad
(3) adbbad (4) abddbd

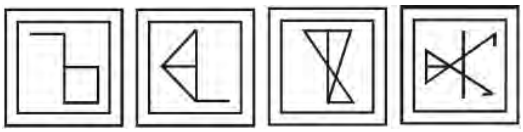
21. If STOP is coded as 19201516. How can we code the word POTS?
(1) 15162019 (2) 19201516
(3) 16152019 (4) 16151920

22. Which one of the following diagrams represents the relationship among cricketers, players and graduates?
(1)  (2) 
(3)  (4) 

23. Find the value of X in the given figure?


(1) 10 (2) 9
(3) 8 (4) 7

24. Find out the alternative figure which contains question figure as it part.
Question figure:

Answer figures:

(1) (2) (3) (4)

25. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of letters as in two matrices given below. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix- II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column. E.g., 'T' can be represented by 31, 76 etc., and 'N' can be represented by 12, 79 etc. Similarly, you have to identify the set for the word 'LOVE'.

Matrix-I

	0	1	2	3	4
0	G	V	E	A	C
1	R	O	N	G	L
2	M	N	E	L	I
3	O	T	I	T	A
4	N	L	N	E	P

Matrix-II

	5	6	7	8	9
5	R	E	O	N	G
6	N	P	V	E	L
7	M	T	I	O	N
8	E	A	I	C	O
9	N	T	A	R	L

(1) 23, 12, 67, 68 (2) 69, 78, 76, 86
(3) 99, 98, 67, 68 (4) 14, 30, 67, 68

Test-II : QUANTITATIVE APTITUDE

26. A train travelling at 48 km/hr crosses another train, having half its length and travelling in opposite direction at 42 km/ hr, in 12 seconds. It also passes a railway platform in 45 seconds. The length of the railway platform is:
(1) 200 m (2) 300 m
(3) 350 m (4) 400 m

27. A cyclist travels 500 km in 4 hours and then he changes his speed and travels 450 km in 5 hours. Then find his second speed is how much percent less than the first speed?
(1) 28% (2) $38\frac{8}{9}\%$
(3) 30% (4) 40%

28. In a right angle ΔABC, B = 90° and AC is hypotenuse. The perpendicular BD is dropped on hypotenuse AC from right angle vertex B, then
(1) $AD = \frac{AB^2}{AC}$ (2) $CD = \frac{BC^2}{AC}$
(3) $\frac{1}{BD^2} = \frac{1}{AB^2} + \frac{1}{BC^2}$ (4) $BD = \frac{AB \times BC}{AC}$

29. Which is the least number which when doubled will be exactly divisible by 12, 18, 21 and 30?
(1) 2520 (2) 1260

(3) 630 (4) 196

30. After a productive test a producer estimates 12% of its production goods will be rejected. He take an order to supply of 25,000 articles at rate of ` 7.50 per article, he estimates that he gets 20% profit including unaccepted products. Then find production cost of per article.
(1) ` 6 (2) ` 5.50
(3) ` 5 (4) ` 4.50

31. The product of two numbers is 120 and the sum of their squares is 289. The sum of the two numbers is
(1) 23 (2) 7
(3) 13 (4) 169

32. A, B and C can do a piece of work for ` 6750. If they all work together they can finish it in 8 days. A and B can do the work in 12 days working together. B and C can do it in $13\frac{1}{3}$ days working together. Find their respective shares.
(1) ` 2700, ` 1800, ` 2250
(2) ` 2700, ` 1600, ` 2450
(3) ` 1800, ` 2700, ` 2450
(4) ` 2700, ` 2450, ` 1800

33. The marked price of a watch was ` 720. A man bought the same for ` 550.80, after getting two successive discounts, the first at 10%. What was the second discount rate?
(1) 12% (2) 14%
(3) 15% (4) 18%

34. 3 candidates participated in an election. The winner got 45% votes while the candidate at third position with 25% votes. If the candidate at the 2nd position lost by 4500 votes, then total no. of votes polled in the election is-
(1) 45000 (2) 30000
(3) 35000 (4) 49000

35. In an exam Akansha scores 25% of the total marks and failed by 60 marks. In the same exam Vertika scores 50% of total marks and thus gets 40 marks more than passing marks. Then by how much percent of passing marks should be increased to get full marks in the exam.
(1) 105% (2) 120%
(3) 150% (4) 90%

36. The radius of the base of a conical tent is 16 metre. If $427\frac{3}{7}$ sq. metre canvas is required to construct the tent, then find the slant height of the tent. (take $\pi = \frac{22}{7}$)
(1) 8.5 m (2) 15 m
(3) 17 m (4) 19 m

37. If $5\tan\theta = 4$, then find the value of $\left(\frac{5\sin\theta - 3\cos\theta}{5\sin\theta + 3\cos\theta}\right)$
(1) $\frac{2}{5}$ (2) $\frac{2}{7}$
(3) $\frac{1}{7}$ (4) $\frac{5}{7}$

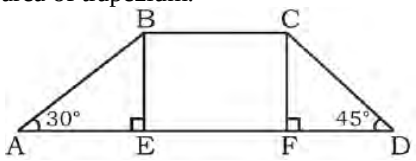
38. If $\cos^2\alpha + \cos^2\beta = 2$, then find the value of $\tan^3\alpha + \sin^5\beta$.
(1) $\frac{1}{\sqrt{3}}$ (2) 0
(3) -1 (4) 1

39. The internal radius and thickness of a hollow metalic pipe are 24 cm and 1 cm respectively. It is melted and recast into a solid cylinder of equal length. Find the diameter of the solid cylinder.
(1) 14 cm (2) 21 cm
(3) 92 cm (4) 18 cm

40. A, B, C are three points on a circle. The tangent at A meets BC produced at T, $\angle BTA = 40°$ and $\angle CAT = 44°$, then the angle subtended by BC at the centre of the circle is-
(1) 104° (2) 92°
(3) 96° (4) 84°

41. The area of the square with AC as a side is 128 cm^2. What is the sum of the areas of semicircles drawn on AB and AC as diameters, given ABC is an isoscles right angled triangle and AC is its hypotenuse.
(1) 32π cm^2 (2) 16π cm^2
(3) 16 cm^2 (4) 32 cm^2

42. In the trapezium ABCD, $\angle BAE = 30°$, $\angle CDF = 45°$, BC = 6 cm and AB = 12 cm, then find the area of trapezium.



(1) $12(3+2\sqrt{3})$ cm^2 (2) $36\sqrt{3}$ cm^2
(3) $18(3+\sqrt{3})$ cm^2 (4) $12(3+\sqrt{3})$ cm^2

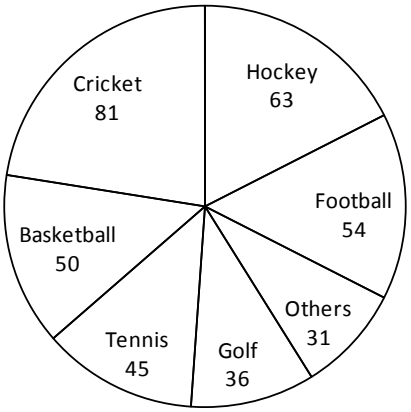
43. If $\sin 2x = \frac{1}{5}$, then the value of (sinx + cosx) will be
(1) $\sqrt{\frac{2}{5}}$ (2) $\sqrt{\frac{4}{5}}$
(3) $\sqrt{\frac{7}{5}}$ (4) $\sqrt{\frac{6}{5}}$

44. If $x + y + z = 10$, $x^2 + y^2 + z^2 = 30$, then the value of $x^3 + y^3 + z^3 - 3xyz$ will be

(1) –40 (2) 40
(3) 50 (4) –50

45. Given $\sqrt{2}$ = 1.414, then the value of $\sqrt{8}+2\sqrt{32}-3\sqrt{128}+4\sqrt{50}$ is
(1) 8.484 (2) 8.526
(3) 8.426 (4) 8.876

Directions (Q. 46-50) : The circle-graph given here shows the spendings of a country on various sports during a particular year. Study the graph carefully and answer the questions given below it.



46. What percent of the total spendings is spent on Tennis?
(1) $12\frac{1}{2}\%$ (2) $22\frac{1}{2}\%$
(3) 25% (4) 45%

47. How much percent more is spent on Hockey than that on Golf?
(1) 27% (2) 35%
(3) 37.5% (4) 75%

48. How much percent less is spent on Football than that on Cricket?
(1) $22\frac{2}{9}\%$ (2) 27%
(3) $33\frac{1}{3}\%$ (4) $37\frac{1}{2}\%$

49. If the total amount spent on sports during the year was ` 2 crores, the amount spent on Cricket and Hockey together was:
(1) ` 8,00,000 (2) ` 80,00,000
(3) ` 1,20,00,000 (4) ` 1,60,00,000

50. If the total amount spent on sports during the year be ` 1,80,00,000, the amount spent on Basketball exceeds that on Tennis by:
(1) ` 2,50,000 (2) ` 3,60,000
(3) ` 3,75,000 (4) ` 4,10,000

Test-III : ENGLISH LANGUAGE

Directions (Q. 51-55) : Some part of the sentences have errors and some are correct. Find out which part of a sentence has an error and blacken the oval [ ] corresponding to the appropriate letter (1), (2), (3). If a sentence is free from error, blacken the oval corresponding to (4) in the Answer Sheet.

51. I can't understand why (1)/ Ram did not told sohan (2)/ the reason for his absence.(3)/ No error (4)
52. I enquired of Javed (1)/ why he is so negligent (2)/ in his studies. (3)/ No error (4)
53. I am sure that (1)/ neither the team RCB nor its players (2)/ is for auction. (3)/ No error (4)
54. This pen is (1)/ very good but (2)/ it costed me ten rupees. (3)/ No error (4).
55. ‘‘Looking forward (1)/ to play (2)/ against India in this world Cup’’, said Pakistani Skipper Afridi. (3)/ No error (4).

Directions (Q. 56-60) : Sentences given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four and indicate it by blackening the appropriate oval [ ] in the Answer Sheet.

56. Ravi is too as far as his food habits are concerned.
(1) enjoyable (2) fastidious
(3) involved (4) interesting

57. We should always make a selection of books.
(1) just (2) judicial
(3) judicious (4) justified

58. Ashu was with a serious crime.
(1) convicted (2) accused
(3) condemned (4) charged

59. Kohli missed the training this morning as he got up late.
(1) quite (2) scarcely
(3) narrowly (4) hardly

60. Renu bought new shoes last month but they are already out.
(1) given (2) gone
(3) knocked (4) worn

Directions (Q. 61-63) : Out of the four alternatives, choose the one which best expresses the meaning of the given word.

61. Pattern
(1) design (2) model
(3) conduct (4) behaviour

62. Commitments
(1) duties (2) responsibilities
(3) restrictions (4) obligations

63. Avouch
(1) vow (2) affirm
(3) pay (4) guarantee

Directions (Q. 64-66) : Choose the word opposite in meaning to the given word.

64. Escalate
(1) Increase (2) Subside
(3) Glorify (4) Heal

65. Acute
(1) Sharp (2) Critical
(3) Dull (4) Sensitive

66. Exhibit
(1) Conceal (2) Prevent
(3) Withdraw (4) Concede

Directions (Q. 67-68) : Four words are given in each question, out of which only one word is spelt correctly. Find the word spelt correct and mark your answer in the Answer Sheet.

67. (1) illustrate (2) ilusstraite
(3) ellustrait (4) illestruate

68. (1) Frontier (2) Frauntir
(3) Frauntir (4) Fronteur

Directions (Q. 69-73) : Four alternative are given for the underlined Idiom/ Phrase. Choose the alternative which best expresses the meaning of the Idiom/Phrase and mark it in the Answer Sheet.

69. We must not evaluate the success of New zealand team with a jaundiced eye.
(1) To be jealous (2) To overlook
(3) To have prejudice (4) To ascertain

70. Players should make the most of the power play if they want to win this match.
(1) To compensate (2) To utilize
(3) To try utmost (4) To care

71. A mealy mouthed student is always uccessful in an interview.
(1) Weak (2) Soft spoken
(3) abusive (4) Reserve

72. We should not lose our head even in such a victory.
(1) To laugh loudly (2) Causing ruin
(3) To cheat (4) To be carried away

73. Javed is a man of parts and is respected by all his colleagues.
(1) A weak person (2) A literary person
(3) A man of qualities (4) A debatable person

Directions (Q. 74-81) : A sentence/ a part of the sentence is underlined. Below are given alternatives to the underlined part at (1), (2), (3) which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (4). Mark your answer in the Answer Sheet.

74. Had we realised we would never win in world cup, we would not have come to India.
(1) Had we been realised
(2) If we would have realised
(3) If we had realised
(4) No correction required

75. Players are used to feed the unbearable force of strain.
(1) are used to feeding (2) are using to feed
(3) is to use having fed (4) No correction required

76. Everbody depend upon Kohli scoring runs every time India goes to bat.
(1) depend upon Kohli scoring
(2) depend upon Kohli score
(3) depends upon Kohli scoring
(4) No correction required

77. Eve-teasing is not only a moral offence but a crime punishable under law.
(1) as well as (2) as also
(3) but also (4) No correction required

78. You are the most unique person.
(1) most (2) a mostly
(3) a (4) No correction required

79. It was mere affection that stopped him from beating his son.
(1) great (2) much
(3) filial (4) No improvement

80. Power got with money is the most craved for today.
(1) sought (2) wished for
(3) welcomed for (4) No improvement

81. When those whom he had injured accused him of being a charlatan, he retorted curtly that he has never been a quack.
(1) libertine (2) sycophant
(3) plagiarist (4) No improvement

Directions (Q. 82-89) : In the following question, out of the four alternatives, choose the one which can be substituted for the given sentence.

82. A task that requires extremely great strength or effort
(1) Holocaust (2) Herculean
(3) Impeccable (4) Immense

83. An instrument that measures air pressure
(1) Lactometer (2) Richter scale
(3) Barometer (4) Aerometer

84. A stay allowed by a government to someone from another country because of being unable to return his country for political reason
(1) Invasion (2) Asylum
(3) Autonomy (4) Channel-surfing

85. An ornamental glass bottle for holding wine or other alcoholic drinks
(1) Decanter (2) Mint
(3) Pitcher (4) Hangar

86. One who introduces performing artistes on the stage programmes
(1) Host (2) Anchor
(3) Compere (4) Introductory

87. Sudden and violent changes
(1) Cataclysm (2) Catalysis
(3) Catacombs (4) Catechism

88. Person who insists on adherence to formal rules or literary meaning
(1) scholar (2) pedant
(3) pedagogue (4) literalist

89. Place of burial
(1) Cave (2) Church
(3) Synagogue (4) Cemetery

Directions (Q. 90-100) : In the following question, out of the four alternatives, choose the one which can be substituted for the given sentence.

Passage -1

At this stage of the civilisation, when many nations are brought into close and vital contact for good and evil, it is essential, as never before, that their gross ignorance of one another should be diminished, that they should begin to understand a little of one another's historical experience and resulting mentality. It is a fault of the English to expect the people of other countries to react as they do, to political and international situations. Our genuine goodwill and good intentions are often brought to nothing, because we expect other people to be like us. This would be corrected if we knew the history, not necessarily in detail but in broad outlines, of the social and political conditions which have give to each nation its present character.

90. The need for a greater understanding between nations
(1) will always be there
(2) is more today than ever before
(3) was always there
(4) is no longer there

91. According to the author the 'mentality' of a nation is mainly a product of its
(1) present character (2) politics
(3) international position (4) history

92. Englishmen like other to react to political situations like
(1) each other (2) others
(3) themselves (4) us

93. According to the author his countrymen should
(1) have vital contacts with other nations
(2) not react to other nations
(3) have a better understanding of other nations
(4) read the history of other nations

94. The character of a nation is the result of its
(1) socio-political conditions
(2) gross ignorance
(3) cultural heritage
(4) mentality

Passage -2

Culture is not merely learning. It is discrimination, understanding of life. Liberal education aims at producing moral gifts as well as intellectual, sweetness of temper as much as sanity of outlook. Into the art of living, the cultured man carries a certain grace, a certain refinement, a certain distinction which redeems him from the sterile futility of aimless struggle. Culture is not a pose of intellect or a code of convention, but an attitude of life which finds nothing human, alien, common or unclean. An education that brings up a young man in entire indifference to the misery and poverty surrounding him, to the general stringency of life, to the dumb pangs of tortured bodies and the lives submerged in the shadows, is essentially a failure. If we do not realise the solidarity of the human community, nor have human relations with those whom the world passes by as the lowly and the lost, we are not cultured.

95. Which of the following statements best expresses the theme of the passage?
(1) Culture lends grace and sanity to man.
(2) Culture and education are complementary to each other.
(3) Liberal education makes man cultured.
(4) Education brings man closer to life.

96. According to the writer, the function of liberal education is to
(1) change the outlook of a person
(2) increase intellectual powers
(3) improve a person morally
(4) develop sensitivity to human dignity

97. Consider the following:
1. Brotherhood of man
2. Understanding of pain and suffering
3. Better human relations
4. Sweetness of temper

Which of the above expressions describes proper education?

(1) 1 and 3 (2) 2 and 4
(3) 2, 3 and 4 (4) All the four

98. Culture redeems a person from the sterile futility of aimless struggle because
(1) it makes man learned.
(2) it makes man more intelligent.
(3) it brings about a better understanding of life.
(4) it prepares man for struggle.

99. Education is sometimes a failure. Which one of the following is the most likely reason for this ?
(1) It improves the intellect only.
(2) It does not prepare man for struggle.
(3) It does not make man refined.
(4) It carries a man away from life around him.

100. Which of these following is incorrect ?
(1) Education brings realisation of solidarity in human.
(2) Culture has a certain grace and refinement.
(3) Education makes a man sensitive to misery and poverty.
(4) Culture is a code of convention.

Test-IV : GENERAL AWARENESS

101. ANTARA is a news agency of which country?
(1) Indonesia (2) Syria
(3) Yemen (4) Jordan

102. For a fixed mass of gas at constant temperature, if we decrease volume, the pressure will-
(1) also decrease (2) increase
(3) remains constant (4) none of these

103. Which substance increases the rate of chemical reaction?
(1) Metal (2) Catalyst
(3) Alloy (4) Enzymes

104. In India the term Black Revolution is associated with:
(1) Self-dependence in the production of coal
(2) Nurturing the Black Soil
(3) Self-dependence in the production of crude oil
(4) Self-dependence in the production of black crop

105. Which of the following is correctly matched with regard to thermal power projects?
(1) Korba-Uttar Pradesh
(2) Ramagundam-Tamil Nadu
(3) Talcher-Andhra Pradesh
(4) Kawas-Gujrat

106. Which one of the following words in the preamble of the Constitution of India was not inserted through the Constitution (42 Amendment) Act, 1976?
(1) Socialist (2) Secular
(3) Dignity (4) Intergrity

107. The Combination of Red, Green and Blue will give which colour?
(1) White (2) Maroon
(3) Dark Blue (4) Black

108. In Indian parliament, a bill may be sent to a select committee
(1) after the first reading
(2) after the second reading
(3) after general discussion during second reading
(4) at any stage at the discretion of the speaker

109. 'Mushika Vamsa' written by Athula in the eleventh century gives an account of the dynasty, which ruled a part of modern Indian state. Which state is this?
(1) Andhra Pradesh (2) Kerala
(3) Maharashtra (4) Orissa

110. pH is an abbreviation for?
(1) Potential of Hydrogen
(2) Possibility of Hydrogen
(3) Population of Hydrogen
(4) Position of Hydrogen

111. According to the UN convention on the rights of the child which amidst the following is NOT a right?
(1) Social Security
(2) Employment
(3) Protection from exploitation
(4) Education

112. The chief component of the cell wall of the majority of fungi is
(1) pectin (2) chitin
(3) lignin (4) cellulose

113. 'Cassia fistula' is the scientific name of
(1) amaltas
(2) rose
(3) onion
(4) tomato

114. The first enzyme to be purified and crystallised was
(1) urease (2) diastase
(3) insulin (4) zymase

115. Development expenditure of the Central government does not include
(1) defence expenditure
(2) expenditure on economic services
(3) expenditure on social and community services
(4) grant to states

116. The concept of political sovereginty was advocated by:
(1) Plato (2) John locke
(3) Rousseau (4) Austin

117. The Indian delegation to the first World Conference on Human Rights was led by

(1) Dr. Manmohan Singh
(2) Farooq Abdullah
(3) Dinesh Singh
(4) Alam Khan

118. The most important breed of wool producing sheep in the world is:
(1) Texel (2) Merino
(3) Deper (4) Dorset

119. The illustrious names of Aryabhatta and Varahamihira are associated with the age of the
(1) Gupta (2) Kushanas
(3) Mauryas (4) Palas

120. The adoption of High Yielding Variety Programme in Indian Agriculture started in-
(1) 1968 (2) 1967
(3) 1966 (4) 1965

121. Name the hormone that stimulates the secretion of gastric juice.
(1) Renin (2) Enterokinase
(3) Enterogastrone (4) Gastrin

122. Planets are kept in orbit by the
(1) Attraction among the Planets
(2) Attraction among the Planets and the Sun
(3) Radiations from the Sun
(4) Gravitational pull of the Sun

123. Which day is observed as World No Smoking Day ?
(1) 15th July (2) 31st December
(3) 1st January (4) 31st May

124. Match the rivers given with the cities through which they flow:

City	Rivers
(a) Bangkok	1. Huangpu
(b) Shanghai	2. St. Lawrence
(c) Dresden	3. Chao Phraya
(d) Montreal	4. Elbe

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

125. "Sati System" was abolished by
(1) Lord Ripon (2) Warren Hasting
(3) Lord cornwills (4) William Bentick

126. ELNINO is
(1) a warm ocean current
(2) sea storm
(3) tropical disturbance
(4) another name of typhoon

127. Which is the hub of the global trade in 'Cut-flowers'?
(1) Netherlands (2) Germany
(3) Japan (4) Colombia

128. The term "Goods are scarce" means?
(1) There is no supply of goods
(2) There is no demand of goods
(3) Goods are limited relative to desires
(4) Goods are expensive because of shortage

129. Fundamental Rights in india are guaranteed through
(1) The Right to equality
(2) Right against Exploitation
(3) Right to constitutional Remedies
(4) Educational and cultural Right

130. Satvahanas minted their coins predominantly in
(1) lead (2) Silver
(3) Gold (4) Copper

131. What provision in the constitution enabled the Central Government to impose the service tax and to expand its span?
(1) List 1, Schedule VI
(2) List 1, Schedule VII
(3) Residuary power under Article 248
(4) Emergency power

132. The network in which we connect each network node to a central device (hub) is called _____.
(1) Bus Network Topology
(2) Star Network Topology
(3) Ring Network Topology
(4) None of these

133. Colorado in USA is famous for the landform:
(1) Grand Canyon (2) Grand Crators
(3) Great valleys (4) Great Basins

134. The Vernal equinox occurs on:
(1) January 29 (2) March 20
(3) April 1 (4) May 25

135. The group of metals Fe, Co, Ni may best be called as:
(1) Transition metals (2) Main group metals
(3) Alkali metals (4) Rare metals

136. What J. B. Dunlop had invented?
(1) Pneumatic rubber tire
(2) Automobile wheel rim
(3) Rubber boot
(4) Model airplanes

137. The Nuclear "Non-Proliferation Treaty" come into force in-
(1) 1967 (2) 1970
(3) 1971 (4) 1974

138. Who among the following were contemporaries of Kanishka?
(1) Kamban, Banabhatta, Asvagosha
(2) Nagarjuna, Asvagosha, Vasumitra
(3) Asvagosha, Kalidas, Banabhatta
(4) Kalidas, Kamban, Vasumitra

139. In which language did 'Dr. M. Venkatesh Iyengar' write?
(1) Malayalam (2) Tamil
(3) Telugu (4) Kannada

140. What percent of the elements in the Periodic Table are Metals?
(1) About 60% (2) About 65%
(3) About 70% (4) About 80%

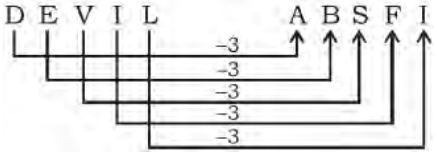
141. Which is the major language of World Wide Web?
(1) HTML (2) PHP
(3) ASP.NET (4) Java
142. Energy flow in ecosystem is
(1) bi-directional
(2) multi-directional
(3) Unidirectional
(4) None of these
143. Which country is called "Land of thousand islands"?
(1) Malaysia (2) Indonesia
(3) Ireland (4) Finland
144. The fourth edition of BIMSTEC Summit-2017 held in _____
(1) Bangkok, Thailand (2) Kathmandu, Nepal
(3) New Delhi, India (4) Dhaka, Bangladesh
145. According to Say's Law?
(1) Supply creates its own demand
(2) Demand creates its own supply
(3) Supply creates Revenue
(4) Demand creates Revenue
146. The highest multipurpose dam built on the River Ravi is-
(1) Bhakra Nagal (2) Kahalgaon
(3) Ranjit Sagar dam (4) Rihand dam
147. 'Garampani sanctuary' is located in-
(1) Sikkim (2) Nagaland
(3) Assam (4) Gujarat
148. Who is the new President of Haiti?
(1) Jude Célestin (2) Jovenel Moise
(3) Michel Martelly (4) Jocelerme Privert
149. Which of the following is called "Brown paper"?
(1) Jute (2) Cotton
(3) Rubber (4) Tea
150. When was the reservation of 27% government jobs for other backward classes declared for the first time in Independent India?
(1) In the year 1990 (2) In the year 1988
(3) In the year 1985 (4) In the year 1982

ANSWER KEY

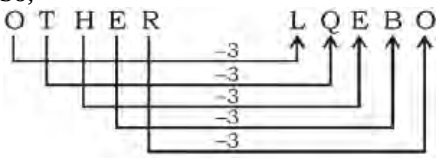
1	(3)	**26**	(4)	**51**	(2)	**76**	(3)	**101**	(1)	**126**	(1)
2	(3)	**27**	(1)	**52**	(2)	**77**	(3)	**102**	(2)	**127**	(1)
3	(3)	**28**	(2)	**53**	(3)	**78**	(3)	**103**	(2)	**128**	(3)
4	(3)	**29**	(3)	**54**	(3)	**79**	(3)	**104**	(3)	**129**	(3)
5	(4)	**30**	(2)	**55**	(2)	**80**	(1)	**105**	(4)	**130**	(1)
6	(4)	**31**	(1)	**56**	(2)	**81**	(4)	**106**	(3)	**131**	(3)
7	(4)	**32**	(1)	**57**	(3)	**82**	(2)	**107**	(1)	**132**	(2)
8	(3)	**33**	(3)	**58**	(4)	**83**	(3)	**108**	(4)	**133**	(1)
9	(2)	**34**	(2)	**59**	(1)	**84**	(2)	**109**	(2)	**134**	(2)
10	(2)	**35**	(3)	**60**	(4)	**85**	(1)	**110**	(1)	**135**	(1)
11	(4)	**36**	(1)	**61**	(1)	**86**	(3)	**111**	(2)	**136**	(1)
12	(4)	**37**	(3)	**62**	(4)	**87**	(1)	**112**	(2)	**137**	(2)
13	(1)	**38**	(2)	**63**	(2)	**88**	(2)	**113**	(1)	**138**	(2)
14	(3)	**39**	(1)	**64**	(2)	**89**	(4)	**114**	(1)	**139**	(4)
15	(4)	**40**	(1)	**65**	(3)	**90**	(2)	**115**	(1)	**140**	(4)
16	(3)	**41**	(2)	**66**	(1)	**91**	(1)	**116**	(3)	**141**	(1)
17	(2)	**42**	(3)	**67**	(1)	**92**	(3)	**117**	(1)	**142**	(3)
18	(4)	**43**	(4)	**68**	(1)	**93**	(3)	**118**	(2)	**143**	(2)
19	(1)	**44**	(4)	**69**	(3)	**94**	(2)	**119**	(1)	**144**	(2)
20	(3)	**45**	(1)	**70**	(2)	**95**	(2)	**120**	(3)	**145**	(1)
21	(3)	**46**	(1)	**71**	(2)	**96**	(3)	**121**	(4)	**146**	(3)
22	(4)	**47**	(4)	**72**	(4)	**97**	(4)	**122**	(4)	**147**	(3)
23	(4)	**48**	(3)	**73**	(3)	**98**	(3)	**123**	(4)	**148**	(2)
24	(2)	**49**	(2)	**74**	(3)	**99**	(4)	**124**	(1)	**149**	(4)
25	(4)	**50**	(1)	**75**	(4)	**100**	(4)	**125**	(4)	**150**	(1)

HINTS & SOLUTIONS

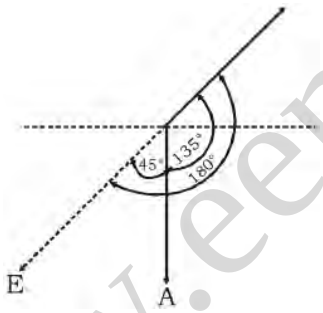
1. (3) Manipuri is a folk dance of Manipur and Kathakali is a folk dance of Kerala.
2. (3) As,



So,

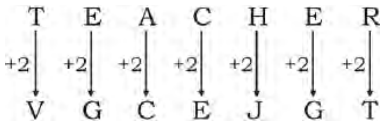


3. (3) As, $5 + 1 = 6 \Rightarrow 6^2 = 36$
So, $6 + 1 = 7 \Rightarrow 7^2 = 49$
4. (3) First word is the antonyms of second word.
Note: In english language, 'Cheater' is not correct though commonly used.
5. (4) 761 is a prime number.
6. (4) In rest of the options, the first word is a smaller form of second word.
7. (4) $1^2 - 1 = 0$, $2^2 - 1 = 3$, $3^2 - 1 = 8$, $4^2 - 1 = 15$ 27.
8. (3) Except option (3), rest comply a combination of cube and square of whole numbers.
9. (2)
10. (2)

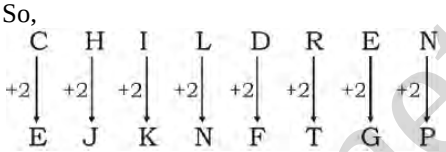


Point E is his current position which is in South-west direction.

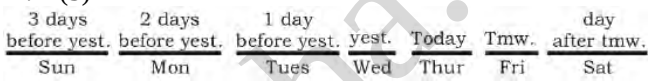
11. (4) Current Ratio of age
7 : 9
↓ ↓
Sachin Rahul
Difference = 9 – 7 = 2
Here, it is given that 2 = 7 years
As given sachin's ratio is 7,
So, $7 = \frac{7}{2} \times 7$ years = 24.5 years



12. (4) As,
So,

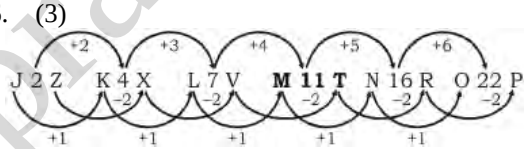


13. (1) Here we can count 12 squares in the given figure.
14. (3)

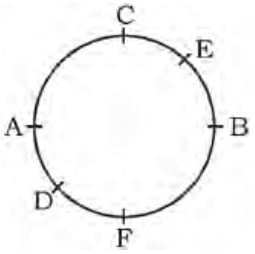


So, we can say that 3 days before yesterday was Sunday.

15. (4) Given:- $(18 + 10 \times 20) - 8 \div 6$
After interchanging the sign we have,
$(18 \times 10 + 20) \div 8 - 6$
$= (180 + 20) \div 8 - 6$
$= 200 \div 8 - 6 = 25 - 6 = 19$
16. (3)



17. (2)

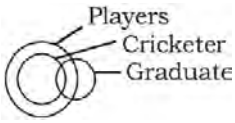


Above mentioned is the position of six persons on a circular table as per given data.
We can clearly see that F is the person sitting to the left of B.

18. (4) $\frac{25 \times 12}{5} = 60$
$\frac{18 \times 17}{2} = 153$
$\frac{36 \times 16}{?} = 96 \Rightarrow \frac{36 \times 16}{96} = 6$
19. (1) $16 = 9 + 4 + 3$
$36 = 25 + 6 + 5$
$64 = ? + 8 + 7$
$\Rightarrow ? = 64 - 15 = 49$
20. (3) a **a** b c **d**/a **b** b c d/a **b** c c d/**a** b c d **d**
So, we have adbbad as the right answer.

21. (3) As,
S T O P
↓ ↓ ↓ ↓
19 20 15 16 ⇒ 19201516
P O T S
↓ ↓ ↓ ↓
So, 16 15 20 19 ⇒ 16152019

22. (4)



23. (4) $5 = 3^2 - 2^2$
$21 = 5^2 - 2^2$
$20 = 6^2 - 4^2$
$x = 4^2 - 3^2$
$\Rightarrow 16 - 9 = 7$
$\Rightarrow x = 7$

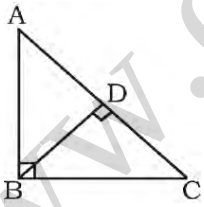
24. (2)

25. (4)

26. (4) Let the lengths of the trains be 2x & x m
Total distance = Relative speed × time
$= 90 \times \frac{5}{18} \times 12 = 300\,\text{m}$
x + 2x = 300, x = 100 and 2x = 200
and it crosses the platform in 45 seconds,
∴ total distance covered in 45 seconds.
$= 48 \times \frac{5}{18} \times 45 = 600\,\text{m}$
Length of platform = 600 – 200 = 400 m

27. (1) 1st speed = $\frac{500}{4} = 125\ \text{km/h}$
2nd speed = $\frac{450}{5} = 90\ \text{km/h}$
∴ Required % = $\frac{35}{125} \times 100 = 28\%$

28. (2)



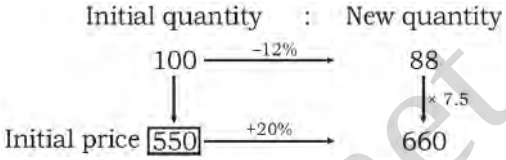
In ΔABC and ΔBCD
∴ ΔABC ~ ΔBCD (by AA)
$\Rightarrow BC^2 = AC \times CD$
$\Rightarrow \frac{AC}{BC} = \frac{AB}{BD} = \frac{BC}{CD} \Rightarrow CD = \frac{BC^2}{AC}$

29. (3) The LCM of 12, 18, 21, 30

2	12, 18, 21, 30
3	6, 9, 21, 15
	2, 3, 7, 5

∴ LCM = 2 × 3 × 2 × 3 × 7 × 5 = 1260
∴ The required number $= \frac{1260}{2} = 630$

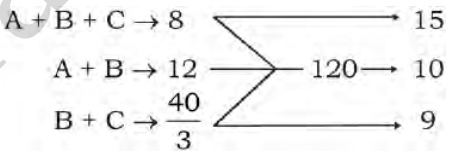
30. (2) Let the initial quantity = 100



∴ Initial price = $\frac{660}{120} \times 100 = 550$
Per article price = $\frac{550}{100} = ₹\ 5.50$

31. (1) Let the numbers be a and b.
According to the question,
ab = 120 ...(i)
and $a^2 + b^2 = 289$ ...(ii)
∴ $(a + b)^2 = a^2 + b^2 + 2ab$
$= 289 + 2 \times 120 = 289 + 240 = 529$
∴ $a + b = \sqrt{529} = 23$

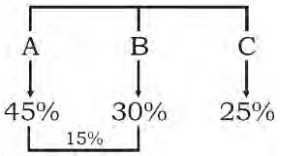
32. (1)



Effi. of A = 6, B = 4, C = 5
Share of A = $\frac{6}{15} \times 6750 = ₹\ 2700$
Share of B = $\frac{4}{15} \times 6750 = ₹\ 1800$
Share of C = $\frac{5}{15} \times 6750 = ₹\ 2250$

33. (3) After 10% discount
Price of watch = 648
∴ 2nd discount
$= \frac{648 - 550.8}{648} \times 100 = 15\%$

34. (2)



∴ B got 100 – (45 + 25) = 30%
ATQ,
15 % → 4500
∴ Total voters → 30000.

35. (3) Akansha scored 25% = Failed by 60 marks
Vertika scores 50% = Passed by 50 more marks

$\therefore$ It's clear that 25% = 100 marks

100% = 400 marks

Pass marks = 160

Required % = $\frac{400-160}{160}\times 100 = 150\%$

36. (1) C.S.A of cone = πrl

$\therefore \frac{22}{7}\times 16\times l = \frac{2992}{7} \Rightarrow 22\times 16\times l = 2992$

$\Rightarrow l = \frac{2992}{22\times 16} = 8.5$ m

37. (3) $5\tan\theta = 4 \Rightarrow \tan\theta = \frac{4}{5}$

$$\therefore \frac{5\sin\theta - 3\cos\theta}{5\sin\theta + 3\cos\theta} = \frac{\frac{5\sin\theta - 3\cos\theta}{\cos\theta}}{\frac{5\sin\theta + 3\cos\theta}{\cos\theta}}$$

$$= \frac{5\tan\theta - 3}{5\tan\theta + 3} = \frac{5\times\frac{4}{5} - 3}{5\times\frac{4}{5} + 3} = \frac{4-3}{4+3} = \frac{1}{7}$$

38. (2) $\cos^2\alpha + \cos^2\beta = 2$

$= 1 - \sin^2\alpha + 1 - \sin^2\beta = 2$

$= \sin^2\alpha + \sin^2\beta = 0$

$= \sin\alpha = \sin\beta = 0$

$= \alpha = \alpha = 0$

$\therefore \tan^3\alpha + \sin^5\beta = 0$

39. (1) Let the length of pipe be h cm, then its volume

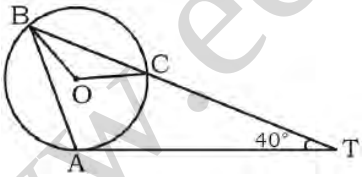
$= \pi r_1^2 h - \pi r_2^2 h = \pi h(r_1^2 - r_2^2)$

$= \pi h(25^2 - 24^2) = 49\pi h$ cu. cm.

$\therefore \pi r^2 h = 49\pi h \Rightarrow r^2 = 49$

$\therefore$ Diameter = 14 cm

40. (1)



$\angle CAT = 44°$, $\angle BTA = 40°$

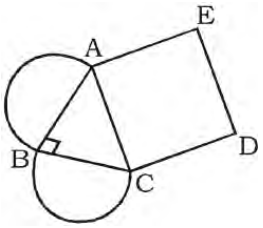
$\angle ACT = 180° - 44° - 40° = 96°$

$\angle CAT = \angle CBA = 44°$

$\angle BCA = 180° - 84° - 44° = 52°$

$\therefore$ Angle on Arc = BC = $2 \times 52° = 104°$

41. (2)



Let AB = BC = x

then AC = $\sqrt{2}$x

But AC = $\sqrt{128} = 8\sqrt{2}$ cm

$\sqrt{2}x = 8\sqrt{2} \Rightarrow x = 8$ cm

Areas of semicircles

$$= \frac{1}{2}\pi\left(\frac{x}{2}\right)^2 + \frac{1}{2}\pi\left(\frac{x}{2}\right)^2$$

$$= \frac{1}{2}\pi(2\times 16) = 16\pi \text{ cm}^2$$

42. (3) $\frac{BE}{AB} = \sin 30° = \frac{1}{2}$

$\Rightarrow BE = \frac{1}{2}\times AB = 6$ cm = CF

and $\frac{CF}{DF} = \tan 45° = 1$

$\therefore$ DF = CF = 6 cm

$\therefore AE = \sqrt{12^2 - 6^2} = 6\sqrt{3}$ cm

$AD = 6 + 6 + 6\sqrt{3} = 6(2 + \sqrt{3})$

Area of trapezium ADCB

$$= \frac{1}{2}\times(AD + BC)\times BE$$

$$= \frac{1}{2}\times[6(2+\sqrt{3}) + 6]\times 6$$

$$= 3(2 + \sqrt{3} + 1)\times 6 = 18(3 + \sqrt{3}) \text{ cm}^2$$

43. (4) $\sin 2x = \frac{1}{5}$ = 1 + sin 2x = 1 + $\frac{1}{5} = \frac{6}{5}$

$\therefore \sin^2 x + \cos^2 x + 2\sin x \times \cos x = \frac{6}{5}$

$= (\sin x + \cos x)^2 = \frac{6}{5}$

$= \sin x + \cos x = \sqrt{\frac{6}{5}}$

44. (4) Since $x^3 + y^3 + z^3 - 3xyz$

$= (x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx)$ ...(i)

& $(x + y + z)^2 = x^2 + y^2 + z^2 + 2(xy + yz + zx)$

$\Rightarrow (10)^2 = 30 + 2(xy + yz + zx)$

$\Rightarrow 2(xy + yz + zx) = 100 - 30 = 70$

From (i),

$x^3 + y^3 + z^3 - 3xyz = 10(30 - 35) = -50$

45. (1) $\sqrt{8} + 2\sqrt{32} - 3\sqrt{128} + 4\sqrt{50}$
$= 2\sqrt{2} + 8\sqrt{2} - 3\times 8\sqrt{2} + 4\times 5\sqrt{2}$
$= 2\sqrt{2} + 8\sqrt{2} - 24\sqrt{2} + 20\sqrt{2}$
$= (2 + 8 - 24 + 20)\sqrt{2}$
$= 6\sqrt{2} = 6\times 1.414 = 8.484$

46. (1) Percentage of money spent on Tennis
$= \left(\frac{45}{360}\times 100\right)\% = 12\frac{1}{2}\%$

47. (4) Let the total spendings on sports be ` x. Then,
Amount spent on Golf
$= ` \left(\frac{36}{360}\times x\right) = ` \frac{x}{10}.$
Amount spent on Hockey
$= ` \left(\frac{63}{360}\times x\right) = ` \frac{7}{40}x.$
Difference $= ` \left(\frac{7}{40}x - \frac{x}{10}\right) = ` \frac{3x}{40}$
$\therefore$ Required percentage
$= \left[\left(\frac{\frac{3x}{40}}{\frac{x}{10}}\right)\times 100\right]\% = 75\%$

48. (3) Let the total spendings on sports be ` x. Then,
Amount spent on Cricket
$= ` \left(\frac{81}{360}\times x\right) = ` \left(\frac{9}{40}x\right)$
Amount spent on Football
$= ` \left(\frac{54}{360}\times x\right) = ` \left(\frac{3}{20}x\right)$
Difference $= ` \left(\frac{9}{40}x - \frac{3}{20}x\right) = ` \frac{3}{40}x$
$\therefore$ Required percentage
$= \left[\left(\frac{\frac{3x}{40}}{\frac{9x}{40}}\right)\times 100\right]\% = 33\frac{1}{3}\%$

49. (2) Amount spent on Cricket and Hockey together
$= ` \left[\frac{(81+63)}{360}\times 2\right]$ crores $= ` 0.8$ crores
$= ` 80,00,000$

50. (1) Amount spent on Basketball exceeds that on Tennis by:
$= ` \left[\frac{(50-45)}{360}\times 18000000\right] = ` 2,50,000$

51. (2) The negative form of simple past tense takes V_1 in it. Hence, replace 'told' by 'tell'.

52. (2) As the sentence is in past form, replace 'is' by 'was'.

53. (3) If the two subjects are joined by 'neither .... nor', the verb agrees with the nearest subject. Hence, replace 'is' by 'are'.

54. (3) The past form of 'cost' is always the same.

55. (2) Phrase 'look forward to' takes 'V_1 + ing' after it. Hence, replace 'play' by 'playing'.

56. (2)
57. (3)
58. (4)
59. (1)
60. (4)
61. (1)
62. (4)
63. (2)
64. (2)
65. (3)
66. (1)
67. (1)
68. (1)
69. (3)
70. (2)
71. (2)
72. (4)
73. (3)

74. (3) Though SSC had given option (3) as the answer, it means the same. No improvement is hence the answer.

75. (4) When 'used to' is preceded by a verb, it means 'habitual of'. Here 'used to' is followed by 'V_1 + ing'.

76. (3) 'Everybody' is singular and will take singular verb 'depends'.

77. (3) 'Not only ..... but also' is a correlative.

78. (3) Unique is not used in a comparative or superlative degree.

79. (3) Here affection for son has been expressed hence 'filial' is a better choice.

80. (1)

81. (4) 'Charlatan' and 'Quack' mean the same hence no improvement is a better choice.

82. (2)
83. (3)
84. (2)
85. (1)
86. (3)
87. (1)
88. (2)
89. (4)

90. (2)
91. (1)
92. (3)
93. (3)
94. (2)
95. (2)
96. (3)
97. (4)
98. (3)
99. (4)
00. (4)
101. (1) 'Antara' is an Indonesian news agency organized as a private company under the Ministry of State-owned Enterprises. It is the country's national news agency, supplying news reports to the many domestic media organization. It is the only organization authorized to distribute news material created by foreign news agencies.
102. (2)
103. (2) Catalyst is a substance that increases the rate of a chemical reaction without undergoing any permanent chemical change in itself.
104. (3) The basic aim of Black Revolution is to increase the amount of Crude Oil (Petroleum) production. With this plan, the Government of India plans to accelerate the production of ethanol and to mix it up with petrol (up to 10%) and produce bio-diesel.
105. (4)
106. (3)
107. (1)
108. (4)
109. (2)
110. (1)
111. (2) The Rights of the Child was adopted by the General Assembly on 20 th November 1959 and recognized in the Universal Declaration of Human Rights.
112. (2) A tough, semitransparent substance that is the main component of the exoskeletons of arthropods, such as the shells of crustaceans and the outer coverings of insects. Chitin is a carbohydrate and is found in the cell walls of certain fungi and algae.
113. (1) The Amaltas (botanical name is Cassia fistula), Indian Laburnum Tree is a very valuable medicinal tree and has been used in Ayurveda as a gentle laxative, which can be taken safely even by children and expectant mothers.
114. (1) Urease is an enzyme that catalyzes the hydrolysis of urea, forming ammonia and carbon dioxide. Found in large quantities in jack beans, soybeans and other plant seeds, it also occurs in some animal tissues and intestinal microorganisms. Urease is significant in the history of enzymology as the first enzyme to be purified and crystallized (by James B. Summer in 1926). This achievement laid the groundwork for the subsequent demonstration that urease and other enzymes are proteins.
115. (1)
116. (3) Political sovereignty is sometimes called supreme will. It includes control of a specific state granted through a constitution or other enabling law and carried out through an established government.
117. (1) Dr. Manmohan Singh led the India delegation to the first world conference on human right. The World Conference on Human Rights was held by the United Nations in Vienna, Austria, on 14 to 25 June 1993.
118. (2) The Merino is an economically influential breed of sheep prized for its wool. Its wool was already very highly valued in the Middle Ages. Today, Merinos are regarded as having some of the finest and softest wool of any sheep.
119. (1)
120. (3) The High Yielding Variety Programme (HYVP) was launched in the Kharif of 1966-67 with an objective to attain self-sufficiency in food by 1970-71. The core philosophy of the programme was to increase the productivity of food grains by adopting latest varieties of inputs of crops. The Farmers were extended finance through a relaxed mechanism by the Reserve Bank of India through the Central Cooperative Banks.This programme in the 4th five year plan was a major breakthrough and a turning point in the history of agriculture development in India.
121. (4) Gastrin is a peptide hormone that stimulates secretion of gastric acid (HCl) by the parietal cells of the stomach and aids in gastric motility. It is released by G cells in the pyloric antrum of the stomach, duodenum and the pancreas.
122. (4) The gravity of the Sun keeps the planets in their orbits. They stay in their orbits because there is no other force in the Solar System which can stop them.

123. (4) World No Tobacco Day (WNTD) is observed around the world every year on May 31. It is intended to encourage a 24-hour period of abstinence from all forms of tobacco consumption around the globe. The day is further intended to draw attention to the widespread prevalence of tobacco use and to negative health effects, which currently lead to nearly 6 million deaths each year worldwide, including 600,000 of which are the result of non-smokers being exposed to second-hand smoke.

124. (1)

125. (4)

126. (1) El Nino is a climate cycle in the Pacific Ocean with a global impact on weather patterns. The cycle begins when warm water in the western tropical Pacific Ocean shifts eastward along the equator toward the coast of South America.

127. (1)

128. (3)

129. (3)

130. (1) The Satavahanas (IAST: Satavahana), were an Indian dynasty based in the Deccan region. The beginning of the Satavahana rule is dated variously from 271 BCE to 30 BCE. Satavahanas dominated the Deccan region from 1st century BCE to 3rd century CE.

131. (3)

132. (2) A star topology is a topology for a Local Area Network (LAN) in which all nodes are individually connected to a central connection point, like a hub or a switch. A star takes more cable than e.g. a bus, but the benefit is that if a cable fails, only one node will be brought down.

133. (1)

134. (2) The Vernal equinox is also called Spring equinox. An equinox is an astronomical event in which the plane of Earth's equator passes through the center of the Sun which occurs twice each year that is around 20 th March and 23 rd September.

135. (1) The 38 elements in groups 3 through 12 of the periodic table are called "transition metals". As with all metals, the transition elements are both ductile and malleable, and it conduct electricity and heat.

136. (1) J. B. Dunlop invented pneumatic rubber tire in 1887.

137. (2) It is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology. Opened for signature in 1968, the Treaty entered into force in 1970. On 11 th May 1995, the Treaty was extended indefinitely. A total of 191 states have joined the Treaty, though North Korea, which acceded to the NPT in 1985 but never came into compliance, announced its withdrawal in 2003. Four UN member states have never joined the NPT: India, Israel, Pakistan and South Sudan.

138. (2) BC 250 - AD 250: Mushikavamsa (also called Ezhimalai Kingdom, Puzhinadu or Konkanam) was an ancient kingdom of Sangam period in the present day northern Kerala. They ruled the strip of land between Mangalore in the north and Vadagara in the south. Ezhimalai is the capital of Mushikavamsa. Ezhimalai Konkanam Nannan was the most powerful ruler of Ezhimalai, he expanded the kingdom to Wayanad, Gudallore and to parts of Coimbatore.

139. (4) Masti Venkatesa Iyengar (6 June 1891 – 6 June 1986) was a well-known writer in Kannada language. He was the fourth among Kannada writers to be honoured with the Jnanpith Award,[1] the highest literary honour conferred in India.[2] He was popularly referred to as Masti Kannadada Aasti which means Maasti is Kannada's Treasure. He is most renowned for his short stories. He wrote under the pen name Srinivasa. He was honoured with the title Rajasevasakta by then Maharaja of Mysore Nalvadi Krishnaraja Wadeyar.

140. (4) pH-Potential of Hydrogen
The concentration of hydrogen ions is commonly expressed in terms of the pH scale. It represents the ratio of Hydronium ions (H3O) to Hydroxide ions (OH). High pH corresponds to low hydrogen ion concentration and vice versa. pH varies in the range of 1 to 14. The solution closer to 1 is highly acidic, while the solution closer to 14 is the strong base. A neutral liquid (Pure water at 25°C) has pH of 7.

141. (1) The World Wide Web is the primary tool billions of people use to interact on the Internet. Web pages are primarily text documents formatted and annotated with Hypertext Markup Language (HTML).

142. (3)

143. (2)

144. (2) The fourth edition of BIMSTEC Summit-2017 will be held in Nepal. It was announced in the 17th session of BIMSTEC Senior Officials' Meeting (SOM) held in Kathmandu, capital Nepal. The BIMSTEC is the sub-regional group of seven countries in South Asia and South East Asia lying in the littoral and adjacent areas of the Bay of Bengal constituting a contiguous regional unity. They are India, Nepal, Bangladesh, Bhutan, Sri Lanka from South Asia and Myanmar, Thailand from South East Asia.

145. (1) Say's law, or the law of markets, found in classical economics, states that aggregate production necessarily creates an equal quantity of aggregate demand.

146. (3) The Ranjit Sagar Dam, also known as the Thein Dam, is part of a hydroelectric project constructed by the Government of Punjab on the Ravi River in the state of Punjab.

147. (3) Garampani Wildlife Sanctuary is a 6.05-square-kilometre (2.34 sq mi) wildlife sanctuary located in Karbi Anglong district, Assam which 25 km (16 mile) from Golaghat.

148. (2) Jovenel Moise was on Tuesday sworn in as Haiti's President and will serve a five-year term. Moise won a re-run presidential election last year with 55.6% votes after the first round of elections in October 2015 were scrapped over fraud allegations. Moise replaces interim president Jocelerme Privert, who was appointed to the post in February 2016.

149. (4)

150. (1) The reservation of 27% government jobs for other Backward Classes declared for the first time was in the year 1990 by the Vishwanath Pratap Singh government.