

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO.



DCA ENTRANCE EXAMINATION - XI
DEFENCE CAREER ACADEMY,
AURANGABAD.

As an ISO 9001 : 2008 - Certified

ENT : 2018-2019

TIME : 2.00 Hrs.

Maths & GAT

Sr. No.

MAXIMUM MARKS : 150

QUESTION - BOOKLET

GENERAL INSTRUCTIONS

1. Do not carry any book, paper or any other material with you inside the Examination Hall.
2. Use only Black / Blue ball pen.
3. Keep the Hall Ticket with you ready for scrutiny.
4. Result of this Examination will be displayed on the Notice Board. The Result Sheet will include the successful/ qualified candidates ONLY.
5. All successful candidates indicated on the list shall present themselves for the interview on the same day.
6. This Test Booklet contains 150 items (Questions). Question No. 1 to 150 (MCQ) carry 1 mark each. You have to select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, Choose Only One response for each item.
7. All the answers must be marked on the Answer Sheet only. Do not write anything on this Test Booklet.
8. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR QUESTION ETC. IF SO, GET IT REPLACED BY THE SUPERVISOR.
9. Ask for a separate paper for rough work.
10. Read the questions carefully, Remember, answers are to be indicated in the Answer

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Sheet Only. Return the Test Booklet, Rough work papers and the Answer Sheet immediately when asked to do so. You are NOT permitted to take away with you any paper concerning the Examination.

ANSWER SHEET

11. The Answer Sheet contains 150 counts, each subdivided in four { (1) (2) (3) (4)} subdivisions for indicating the correct choice of answers. After having selected the correct choice from the test Booklet, you should indicate that choice by completely blackening the respective circle, DO NOT merely cross the circle. You should indicate correct answer by blackening ONLY ONE circle in each answer. Any answer having more than ONE blackened circle will be treated as a WRONG answer.

12. Before starting the answering ensure that you have filled the complete information at the top of this Answer Sheet. Incomplete Answer Sheet will be regarded as invalid.

THANK YOU AND BEST OF LUCK

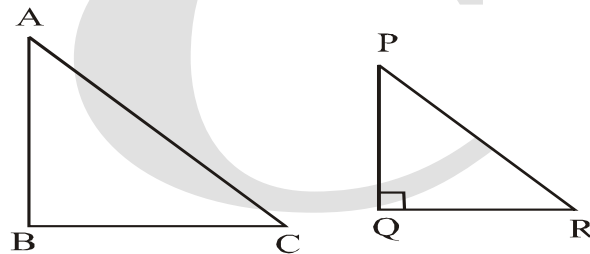
C

A

Part - I Math

01. What is the common difference of the A.P. 10, 11.5, 13, 14.5,?
1) 1.5 2) -1.5 3) 2.5 4) -2.5
02. Which of the following are the next two terms of the sequence 2, 5, 8, 11, ?
1) 13, 16 2) 13, 17 3) 14, 17 4) 14, 16
03. Which of the following sequences are in A.P. ?
i) 1, 3, 6, 10 ii) 3, 8, 13, 18, iii) 7, 4, 1, -2, iv) -10, 13, -16, 11,
1) (i) and (ii) 2) (ii) and (iii) 3) (iii) and (iv) 4) (iv) and (i)
04. for an A.P., $a = 1$ and $d = 4$. What is the value of n . if $t_n = 81$?
1) 22 2) 21 3) 20 4) 19
05. Which one of the following formula is true to find the sum of first n terms of an A.P.?
1) $S_n = \frac{n}{4}(a-l)$ 2) $S_n = \frac{n}{4}(l-a)$ 3) $S_n = \frac{n}{2}(a+l)$ 4) $S_n = \frac{n}{2}(l-a)$
06. What are the roots of the quadratic equation $2x^2 + 6 = -7x$?
1) $-2, \frac{3}{2}$ 2) $-2, \frac{2}{3}$ 3) $-2, -\frac{2}{3}$ 4) $-2, -\frac{3}{2}$
07. If one of the roots of the quadratic equation $kx^2 + 2x - 8 = 0$ is -2 , then what is the value of k ?
1) 2 2) 3 3) 1 4) 4
08. If the point $(3, -1)$ lies on the graph of the equation $ax + 7y = 2$, then what is the value of a ?
1) 6 2) 3 3) -3 4) 1
09. A die is thrown. E is the event that the uppermost face shows a prime number. What is E equal to?
1) $\{1, 3, 5\}$ 2) $\{2, 3, 5\}$ 3) $\{1, 2, 3\}$ 4) $\{2, 3, 4\}$
10. If $S = \{1, 2, 3, 5, 7, 8, 9\}$ and $A = \{1, 5, 8\}$, what is A^c (complement) ?
1) $\{1, 5, 8\}$ 2) $\{1, 2, 3\}$ 3) $\{7, 8, 9\}$ 4) $\{2, 3, 7, 9\}$
11. What is the class mark of the class 10-19?
1) 14.5 2) 29 3) 4.5 4) 9
12. Which of the following is not a measure of the central tendency?
1) Mean 2) Median 3) Mode 4) Standard deviation
13. In ΔPQR , line l is drawn parallel to QR intersecting PQ in A and PR in B . $PA = 3$ cm, $AQ = 4.5$ cm and $PB = 2$ cm. What is the length of PR ?
1) 5 cm 2) 4 cm 3) 3 cm 4) 6.5 cm
14. In ΔPQR , $\angle Q = 120^\circ$. seg $PS \perp$ line QR . $S-Q-R$. If $PQ = 8$ cm and $QR = 6$ cm, what is the length of SR ?
1) 8 cm 2) 10 cm 3) 12 cm 4) 16 cm
15. In ΔDEF , DG is the median. If $EF = 18$ cm, $DE^2 + DF^2 = 260$ cm², then what is the length of median DG ?
1) 9 cm 2) 14 cm 3) 4.5 cm 4) 7 cm
16. In ΔABC , $AB = 24$ cm, $BC = 32$ cm and $AC = 40$ cm. What type of ΔABC is ?
1) An acute angled triangle 2) An obtuse angled triangle
3) A right angled triangle 4) Triangle is not possible

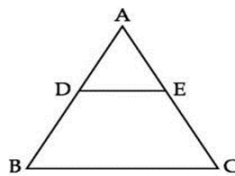
17. What type of quadrilateral is a parallelogram inscribed in a circle ?
 1) Rectangle 2) Square 3) Rhombus 4) Trapezium
18. Where does the orthocentre of a right angle triangle lie ?
 1) In the interior of the triangle 2) In the exterior of the triangle
 3) On the hypotenuse 4) At the vertex of the right angle
19. If the ratio of the circumference to the area of a circle is numerically 2 : 7, then what is the diameter of the circle ?
 1) 7 2) 14 3) $\frac{7}{\pi}$ 4) $\frac{14}{\pi}$
20. The radius of a circle is 5.5 cm. What is the measure of the arc of this circle whose length is 6.05 cm ?
 1) 31.5° 2) 60° 3) 63° 4) 120°
21. What is the length of a tangent segment drawn from a point 26 cm away from the centre of a circle of radius 24 cm ?
 1) 25cm 2) 13cm 3) 12cm 4) 10 cm
22. If the slope of the line joining the points (k, - 4) and (-1, -6) is -2, then what is the value of k ?
 1) 2 2) -2 3) 1 4) -1
23. The equation of line is $3x + 6y - 9 = 0$, then the slope is
 1) -1/2 2) -1 3) 1/2 4) -2
24. Two similar right triangles ABC and PQR are as shown in the figure. If $AB = \sqrt{3}$, $PQ = \frac{\sqrt{3}}{2}$, $BC=1$. Find $PR=?$



- 1) 2 2) 1 3) $2\sqrt{3}$ 4) 4
25. For the angle in standard position, if the initial arm rotates 220° in clockwise direction, then in which quadrant will the terminal arm be ?
 1) Quadrant I 2) Quadrant II 3) Quadrant III 4) Quadrant IV
26. The value of which of the following is 1 ?
 (1) $\cot^2 \theta - \operatorname{cosec}^2 \theta$ 2) $\operatorname{cosec}^2 \theta - \cot^2 \theta$ 3) $\operatorname{cosec}^2 \theta + \cot^2 \theta$ 4) $\tan^2 \theta - \sec^2 \theta$
27. What is the distance between the point A(7, 5) and B (2, 5) ?
 1) 0 2) 2 3) 5 4) 7
28. What is the equation of a line passing through (2,-(1)) and parallel to the line $3x + 4y = 10$?
 1) $3x + 4y + 2 = 0$ 2) $3x + 4y - 2 = 0$ 3) $3x - 4y - 2 = 0$ 4) $-3x + 4y - 2 = 0$
29. An arc of a circle of radius 10 cm subtends an angle of 72° at the centre. What is the length of the arc ?
 1) 12.56 cm 2) 6.28 cm 3) 125.6 cm 4) 62.8 cm

30. The circumference of a circle is 110 cm. What is the length of the arc of this circle whose measure is 72° ?
 1) 22 cm 2) 33 cm 3) 44 cm 4) 55 cm
31. The diameter of a solid metallic sphere is 18 cm. It is melted and drawn into a wire of radius 3 mm. What will be the length of the wire ?
 1) 36 m 2) 54 m 3) 108 m 4) 144 m
32. If $\alpha + \beta = -2$ and $\alpha^2 + \beta^2 = 74$, what is the quadratic equation whose roots are α and β ?
 1) $x^2 - 2x + 35 = 0$ 2) $x^2 + 2x - 35 = 0$ 3) $x^2 - 2x - 35 = 0$ 4) $x^2 + 2x + 35 = 0$
33. What is the number of common tangents that can be drawn to two circles touching internally ?
 1) 3 2) 2 3) 1 4) no common tangent
34. What is the value of m for which the simultaneous equations $mx + 5y - 11 = 0$ and $14x + 7y - 15 = 0$ do not have unique solution ?
 1) 10 2) 14 3) 11 4) 15
35. What is the value of $\frac{1}{x} + \frac{1}{y}$, if $\frac{5}{x} + \frac{9}{y} = 6$ and $\frac{1}{x} + \frac{5}{y} = 30$?
 1) 6 2) -6 3) 4 4) -4
36. If the slope of the line joining the points (2, k) and (-4, 2) is $\frac{1}{2}$, then what is the value of k ?
 1) 2 2) 3 3) -4 4) 5
37. For the angle θ in standard position, if the terminal arm passes through the point (6, -8), then what is the value of $\cot \theta$?
 1) $-\frac{4}{3}$ 2) $\frac{4}{3}$ 3) $-\frac{3}{4}$ 4) $\frac{3}{4}$
38. What is the value of mean (\bar{x}), if $\sum f_i x_i = 30$ and $\sum f_i = 6$?
 1) $\frac{1}{5}$ 2) 5 3) 24 4) 36
39. What is the roots of the quadratic equation $6x^2 - 13x + 6 = 0$?
 1) $\frac{2}{3}, \frac{3}{2}$ 2) $\frac{2}{3}, -\frac{3}{2}$ 3) $-\frac{2}{3}, \frac{3}{2}$ 4) $-\frac{2}{3}, -\frac{3}{2}$
40. Three coins are tossed simultaneously. P is the event of getting at least two heads. What is P equal to ?
 1) { HHH, HHT, HTH, THH } 2) { HHT, HTH, THH }
 3) { HHT } 4) { HTH, THH }
41. In ΔABC , $AB = AC$ and in ΔDEF , $DE = DF$. $\angle BAC \cong \angle EDF$. $A(\Delta ABC) = 32 \text{ cm}^2$ and $A(\Delta DEF) = 98 \text{ cm}^2$ What is the ratio of their corresponding heights ?
 1) 16 : 49 2) 49 : 16 3) 4 : 7 4) 7 : 4
42. In ΔDEF , E-P-F. $EF = 15 \text{ cm}$, $PF = 10 \text{ cm}$. What is the ratio of $A(\Delta DEP)$ to $A(\Delta DEF)$?
 1) 1 : 3 2) 3 : 1 3) 2 : 3 4) 3 : 2
43. In ΔABC , $AB = 12 \text{ cm}$. $BC = 10 \text{ cm}$, $AC = 8 \text{ cm}$. What type of ΔABC is ?
 1) An acute angled triangle 2) An obtuse angled triangle
 3) A right angled triangle 4) An isosceles triangle

44. O is the centre of a circle with radius 8cm. T is a point in the exterior of the circle. A and B are the point on the circle such that $\angle ATB = 70^\circ$. What is the measure of $\angle AOT$?
 1) 110° 2) 70° 3) 55° 4) 35°
45. Where does the circumcentre of a right angled triangle lie ?
 1) In the interior of the triangle 2) In the exterior of the triangle
 3) At the vertex of the right angle 4) At the midpoint of the hypotenuse
46. For the angle in standard position, if the initial arm rotates 230° in anticlockwise direction, then in which quadrant will the terminal arm be ?
 1) Quadrant I 2) Quadrant II 3) Quadrant III 4) Quadrant IV
47. For the angle θ in standard position, if the terminal arm passes through the point $(-5, 12)$, then what is the value of $\operatorname{cosec} \theta$?
 1) $\frac{12}{13}$ 2) $\frac{13}{12}$ 3) $-\frac{12}{13}$ 4) $-\frac{13}{12}$
48. $A(-2, 3)$, $B(4, -3)$, $C(4, 2)$, $D(3, k)$. If line AB is parallel to line CD, then what is the value of k ?
 1) 3 2) -3 3) 1 4) -1
49. What is the common difference of the A. P. 239, 236, 233, ?
 1) 3 2) -3 3) 4 4) -4
50. In given figure, $DE \parallel BC$, if $AB = 7.6$ cm, $AD = 1.9$ cm, then $AE : EC$ is :



- 1) 1 : 4 2) 1 : 3 3) 4 : 1 4) 3 : 1
51. If $\sec \theta = \sqrt{\frac{13}{12}}$, then the value of $\sin \theta - \cos \theta$ is
 1) $\frac{1}{\sqrt{12}}$ 2) $\frac{1 - \sqrt{12}}{\sqrt{13}}$ 3) $\frac{1 + \sqrt{12}}{\sqrt{13}}$ 4) $\frac{1}{\sqrt{13}}$
52. What is the value of D, for the simultaneous equations $3x + 2y + 11 = 0$ and $7x - 4y = 9$?
 (1) 26 2) -26 3) 62 4) -62
53. Two coins are tossed simultaneously. What is the probability of getting at least one tail ?
 1) $\frac{1}{2}$ 2) $\frac{4}{3}$ 3) $\frac{3}{4}$ 4) $\frac{1}{4}$
54. The values of mean and mode for a certain frequency distribution are 96 and 93 respectively. What is the value of the median ?
 1) 92 2) 95 3) 94 4) 97

55. Which of the following are the terms of an A.P.?

- 1) 1,3,4,10, 2) 3, 6, 12, 24, 3) 28, 26, 24, 22, .. 4) 4, 2, 3, 1, ..

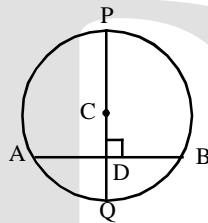
56. If $\sin \theta = \frac{12}{37}$, then the value of $\cot \theta$ is :

- 1) $\frac{37}{35}$ 2) $\frac{35}{37}$ 3) $\frac{12}{35}$ 4) $\frac{35}{12}$

57. The length of the chord of a circle of radius 41 cm at a distance of 9 cm from its centre iscm

- (1) 40 2) 80 3) 20 4) 41

58. In the figure, seg PQ is the diameter of the circle with centre C. Chord AB \perp Diameter PQ at D. DQ = 9 AB = 30, Then PQ =



- 1) 17 2) 26
3) 34 4) 52

59. AB and AC are tangent segments to a circle with centre O at B and C respectively from point A in the exterior of the circle. If the length of each tangent segment is equal to the radius 7 cm of the circle. Then AO =cm

- 1) $7\sqrt{2}$ 2) $7\sqrt{3}$ 3) $14\sqrt{2}$ 4) $14\sqrt{3}$

60. The co-ordinates radius of circumcircle of ΔPQR if P = (5, -(1)), Q = (-3,3) and R = (-2, 6) is =

- 1) $2\frac{1}{2}$ 2) 10 3) $1\frac{1}{2}$ 4) 5

61. The point on y-axis which is equidistance from the point (-5,-2) and (3,2) is

- 1) (0,-2) 2) (-2,0) 3) (2,-2) 4) (2,2)

62. If the distance between the points (k,-2) and (-2, -5) is 5 then the value of K is

- (1) k = 6 or k = 2 2) k = 6 or k = 2 3) k = -6 or k = 2 4) k = -6 or k = -2

63. If $\frac{4 \sin A}{3 \cos A} = 1$, then the value of $\sec A$ is :

- 1) $\frac{3}{5}$ 2) $\frac{5}{3}$ 3) $\frac{5}{4}$ 4) $\frac{4}{5}$

64. $\frac{1}{2} \sin^2 90^\circ + \frac{1}{4} \cos^2 60^\circ + \cot^2 90^\circ - \frac{3}{4} \sec^2 30^\circ$

- 1) $\frac{5}{16}$ 2) $-\frac{7}{16}$ 3) $-\frac{5}{16}$ 4) $\frac{7}{16}$

65. The value of $\sin 75^\circ + \cos 75^\circ$ is :

- 1) $\sqrt{3}$ 2) $\frac{\sqrt{6}}{2}$ 3) $-\sqrt{3}$ 4) $\sqrt{3} + 1$

66. If the diagonal of a rectangle is 17 cm long and the perimeter of the rectangle is 46 cm, then the area of the rectangle is :

- (1) 120 cm^2 2) 112 cm^2 3) 132 cm^2 4) 289 cm^2

67. If (-2, -3) is a point on the line $2y = mx + 5$, then what is the value of m ?

- 1) $\frac{11}{2}$ 2) $-\frac{11}{2}$ 3) $\frac{2}{11}$ 4) $-\frac{2}{11}$

68. Arc of a circle subtends an angle of 189° at the centre of the circle if the length of the arc is 33 cm, then the radius of circle is :
- 1) 3 cm 2) 7 cm 3) 10 cm 4) 14 cm
69. The measure of the complementary angle of measure 55° is
- 1) 145° 2) 55° 3) 35° 4) None of these
70. The measure of an angle is four times the measure of its supplementary angle. Then the measure of the angle is
- 1) 35° 2) 72° 3) 108° 4) 144°
71. Which of the following pairs the pairs of co-terminal angles ?
- 1) $425^\circ, 65^\circ$ 2) $430^\circ, 70^\circ$ 3) $450^\circ, 90^\circ$ 4) $720^\circ, 40^\circ$
72. The perimeters of two similar triangles is 36 cm and 24 cm respectively. One side of the smaller triangle is 10 cm. Then the corresponding side of the bigger triangle is
- 1) 15 2) 20 3) 30 4) 7.5
73. Which of the following statements is false ?
- i. The sum of any two sides of the triangle together is greater than the third side.
 ii. If any two angles of a triangle are not congruent, then the side opposite to the smaller angle is smaller.
 iii. Each of the perpendicular sides of a right triangle is smaller than the hypotenuse.
 iv. The perpendicular line segment to a line drawn from a point outside the line is the greatest.
- 1) i. 2) ii 3) iii 4) iv
74. Find the ratio in which the line segment joining the points (6,4) and (1),-7) is divided by the x-axis.
- 1) 4:7 2) 7:4 3) 5:7 4) 7:5
75. If a square is divided into two congruent parts then which of the following figures are obtained ?
- 1) Two equilateral triangles 2) A square whose area is $\frac{1}{3}$ the area of the other part.
 3) Two rectangles 4) All of these

Part - II GAT

COMPREHENSION

Direction. Q. 76-78 In this section you have a short passage. After the passage you will find several questions based on the passage. First, read the passage and answer the questions based on it.

The last twenty years have witnessed an explosion of growth opportunities for women in industry, especially at the decision making level. Today more young women have a change to walk the competitive edge and proved that their abilities are at par with if not better than those of their male colleagues.

However, as they are beginning to storm the traditionally male bastions of management they are finding out that the roads to success are paved with difficulties. They discover very early in their career that the battle for supremacy in corporate organizations calls into play not only the forces, of power, control and dominance, but issues of gender, attitude and acceptance of women.

76. The first sentence of the passage implies that job opportunities
- 1) for women have increased.
 (2) in industry have increased.
 (3) for women at the managerial level have increased.
 (4) in the corporate sector have increased.
77. Which one of the following phrases best reflects the meaning of "male bastions" ?
- 1) Management styles of males. (2) Management areas dominated by males
 (3) Careers for males (4) Management abilities of males.

78. According to the passage, women in high positions have
 1) no problems at all.
 (2) some problems.
 (3) Problems related to power and control.
 (4) Problems related to roles of women in society.

SPOTTING ERRORS

Directions: Q.79-84: In this section, six sentences are given. Each sentence has three parts indicated by a, b and c. Read each sentence to find out whether there is an error in one of the parts. If you find an error in any one of the parts [a, b, c,] indicate your response by blackening the letter related to that part in the Answer Sheet provided. If a sentence has no error, indicate this by blackening [d] which stands for "No error".

79. When the teachers are on strike 1) /and a notice to this effect is pasted on the college gate(2)/there is no sense to go there.(3)/No error(4)
80. Neither India nor Pakistan 1) /have yet acquired (2) /the capability to produce nuclear weapons.(3)/ No error(4)
81. The manager of the bank was busy;1) / so he asked them to come and(3) / see him between two to three in the afternoon(3) /No error(4)
82. The conductor asked the passenger 1) /why had he not purchased his (2)/ ticket for the journey(3)/ No error(4)
83. I shall write1)/to you (2)/when I shall reach Bangalore (3)/No error(4)
84. What sort of a drug this is1) /that no one seems to be able to predict its long-term effects (2)/ with any certainty?(3) / No error(4)

SENTENCE IMPROVEMENT

Directions :Q. 85 - 90: In this section, you will find a few sentences, parts of which are printed in bold. You may also find a group of words which is printed in bold. For each bold part, four words/ phrase are listed below. Choose the word nearest in meaning to the bold part and blacken the corresponding space in the Answer Sheet.

85. The old man shows no sign of **infirmity** even though he is eighty years old
 1) lack of firmness (2) Feebleness (3) fickleness (4) indolence
86. Most of the politicians these days have a large number of **toadies** around them.
 1) servants (2) followers (3) sycophants (4) professional assistants
87. The weavers have to do **monotonous** work.
 1) autonomous (2) irksome (3) exhausting (4) repetitive
88. There is not a **single** word that is **redundant** in the report.
 1) unimportant (2) not needed (3) bombastic (4) flowery
89. The country economy is beginning to **look up** now.
 1) look clear (2) go down (3) remain static (4) improve
90. We agreed to have the Town Hall as the **rendezvous** for all the scout troops.
 1) assembly (2) camping ground (3) picnic spot (4) meeting place

SENTENCE COMPLETION

Direction (Q.91 to 96) : Pick out the most effective word from the given words to fill in the blank to make the sentence meaningfully complete.

91. The two sisters look sothat it is difficult to tell one from the other.
 1) same (2) similar (3) identical (4) alike

92. Since one cannot read every book, one should be content with making a selection.
 1) normal 2) standard 3) sample 4) judicious
93. Success comes to those who are vigilant not to permitfrom the chosen path.
 1) diversion 2) deviation 3) affected 4) inflicted
94. His actions had..... pain and suffering on thou sands of people.
 1) deplored 2) eliminated 3) obstruction 4) inflicted
95. He has good over the famous world languages.
 1) authority 2) expertise 3) hold 4) command
96. The lions in the Gir forest are protected as they come under species.
 1) dangerous 2) engendered 3) enamoured 4) endangered

SYNONYMS

Direction. Q 97 & 98 In this section you will find a a few sentences, parts of which are italicised. You may also find only a group of words which is italicised. For each italicized part, four words /phrases are listed below. Choose the word/phrase nearest in meaning to the italicised word or phrase.

97. A civilised Roman *banquet was* a thing of great richness, style and decorum.
 1) table (2) ornament (3) feast (4) palace
98. Last evening I was *held up* at the meeting.
 1) delayed (2) stopped (3) detained (4) kept

ANTONYMS

Directions (Qs. 99 & 100): In this section each item consists of a word or a phrase which is underlined in the given sentence. It is followed by four words or phrases. Select the word or phrase which is closest to the opposite in meaning of the underlined and bold word or phrase.

99. He was immaculately dressed for the party.
 (1) Imperfectly (2) Irresponsibly (3) Incompletely (4) Moderately
100. The teachers have been observing his impertinent behavior.
 (1) Indifferent (2) Polite (3) Rude (4) Unpleasant
101. A boy walks at a speed of 5 m/s towards a plane mirror. The boy and his image in the mirror are moving
 (1) towards each other at a speed of 5 m/s (2) away from each other at a speed of 5 m/s
 (3) towards each other at a speed of 10 m/s (4) away from each other at a speed of 10 m/s
102. The size of an image formed in a pinhole camera may be increased by
 (1) placing the object nearer to the camera
 (2) reducing the size of the object
 (3) decreasing the distance between the pinhole and the screen
 (4) making the pinhole bigger
103. The Centre of the sphere of which the spherical mirror forms a part is called
 (1) Centre of curvature (2) focus
 (3) pole (4) vertex
104. A 110 volt toaster oven draws a current of 6 ampere on its highest setting as it converts electrical energy into thermal energy. The toasters maximum power rating is
 (1) 660 W (2) 760W (3) 110 W (4) 55 W
105. Which resistor will be physically larger in size ?
 (1) 10 ohm, 50 W (2) 100 ohm, 10 W (3) 1kohm, 1 W (4) 10 Mohm, 1/2 w.

106. The electronic configuration (2, 8, 5) belongs to
- (1) Mg (2) Al (3) Si (4) P
107. The chemical formula for carbonic acid is
- (1) H_2SO_4 (2) H_2CO_3 (3) HNO_3 (4) HCl
108. Mixture of several indicators is known asindicator.
- (1) natural (2) synthetic (3) universal (4) olfactory
109.metal is generally found in free state.
- (1) Copper (2) Gold (3) Iron (4) Zinc
110. Ethane with the molecular formula C_2H_6 has covalent bonds.
- (1) 6 (2) 7 (3) 8 (4) 9
111. The largest gland in Human body is _____
- (1) Pancreas (2) Thyroid gland (3) Liver (4) Salivary gland
112. _____ is brain of cell.
- (1) Lysosome (2) mitochondria (3) Golgi bodies (4) Nucleus
113. _____ are called amphibians of plant kingdom
- (1) Algae (2) Bryophytes (3) Fungi (4) Pteridophyte
114. Find the CORRECT match
- (1) Meristematic tissue - dead tissue (2) Sclerenchyma - power of cell division
(3) Xylem - Conduction of water (4) Phloem - Responsible for secondary growth
115. Breaking up of complex substances into simple substances is called
- (1) digestion (2) ingestion (3) egestion (4) assimilation
116. Vasco da Gama sought business concessions from king _____ of calicut.
- (1) Shah (2) Alam (3) Zamorin (4) Jahangir
117. Upto 18th Century _____ was regarded as a dark continent
- (1) Asia (2) Africa (3) America (4) Eurape
118. Communist Republic founded in Oct 1949 under the leadership of _____
- (1) Mao - Tse - Tung (2) Sun - yet - sen (3) Chiang - kai shek (4) Dr. B.R.Ambedkar
119. Hitlers autobiography entitled “_____” is a manifesto of the Nazism.
- (1) Das Kapital (2) Mein Kampf (3) Young Turks (4) Nazism
120. The Judges of the International court of the league of Nations were being appointed by the _____
- (1) council (2) Assembly (3) Secretary (4) Security Head.
121. Area wise India is the _____ largest counfry in the world.
- (1) fifth (2) Sixth (3) Seventh (4) fourth
122. The forest soils are _____ in colour
- (1) dark yellow (2) dark brown (3) dark red (4) pink
123. Rajasthan plain is known as _____ desert.
- (1) sahara (2) Kalahari (3) Gobi (4) Great Indian
124. Punjab and Haryana plain is the leading producer of _____
- (1) bajara (2) Wheat (3) Oilseeds (4) sugarcane
125. Varanasi is famous for _____
- (1) Silk sarees (2) Cotton sarees (3) Woollen Clothes (4) leather production
126. In democracy all citizens have _____ right to vote
- (1) Unequal (2) equal (3) limited (4) indirect

127. The party (or parties) winning the majority of seats in the election is known as _____ party.
 (1) Ruling (2) opposition (3) Independent (4) Free
128. India has adopted _____ system of government
 (1) Unitary (2) federal (3) presidential (4) limited monarchy
129. _____ is a primary political activity.
 (1) criticizing the government (2) deciding policies
 (3) voting (4) attending meetings
130. To maintain and capture _____ is the main aim of the political parties.
 (1) Publicity (2) Minority (3) Power (4) Information
131. The principal copper deposits of India lie in which of the following places?
 1) Hazaribag and Singbhum of Bihar 2) Khetri and Daribo areas of Rajasthan
 3) Anantapur in Andhra Pradesh 4) Siwaliks in Uttar Pradesh and in Karnataka
132. Which of the following are true regarding Jhum cultivation in India?
 I) It is largely practiced in Assam
 II) It is referred to as 'slash and burn' technique
 III) In it, the fertility is exhausted in a few years
 1) I, II and III 2) II and III 3) I and II 4) I and III
133. The Yarlung Zangbo river, in India, is known as
 1) Ganga 2) Indus 3) Brahmaputra 4) Mahanadi
134. The Salal Project is on the river
 1) Chenab 2) Jhelum 3) Ravi 4) Sutlej
135. The only zone in the country that produces gold is also rich in iron is
 1) North-eastern zone 2) North-western zone 3) Southern zone 4) None of the above
136. The present Lok Sabha is the
 1) 13th Lok Sabha 2) 14th Lok Sabha 3) 15th Lok Sabha 4) 16th Lok Sabha
137. The Parliament of India can make use of the residuary powers
 1) at all times
 2) only during national emergency
 3) during national emergency as well as constitutional emergency as well in a state
 4) None of the above
138. The members of Lok Sabha hold office for a term of
 1) 4 years 2) 5 years 3) 6 years 4) 3 years
139. The Parliament exercises control over council of ministers, the real executive, in several ways. Which one of the following has been wrongly listed as a method of control over executive?
 1) Questions
 2) Supplementary questions
 3) Adjournment motions
 4) None of the above
140. The number of writs that can be prayed for and issued by the Supreme Court and/or a High Court is
 1) 3 2) 4 3) 5 4) 6

141. Air passengers may be allowed to make mobile calls and surf the internet during flights in the Indian airspace from;
- 1) January 2019 2) February 2019 3) March 2019 4) April 2019
142. How many projects are sanctioned under National Mission for Clean Ganga over 24 thousand crore?
- 1) 172 2) 188 3) 254 4) 263
143. The “rakhi with khaki” initiative of which police station holds the Guinness World Records?
- 1) Dhupguri Police 2) Gudamba Police 3) Bilaspur Police 4) Panjagutta Police
144. Which ministry released a book title “A Handbook for Students on Cyber Safety to aware teenagers about online Crimes and Threats”?
- 1) Ministry of External Affairs 2) Ministry of Home Affairs
3) Ministry of Corporate Affairs 4) Ministry of Human Resource Development
145. Which government launched the Common Mobility Card recently to travel aboard both metro trains and State-run buses?
- 1) Maharashtra 2) Haryana 3) Delhi 4) Hyderabad
146. With which ministry Madame Tussauds Wax Museum signs an MoU recently?
- 1) Ministry of Human Resource Development 2) Ministry of Home Affairs
3) Ministry of Defence 4) Ministry Of Railways
147. Which Ministry announced that 15 helipads will be implemented across the country to improve tourism prospects?
- 1) Ministry of Defence 2) Ministry of Home Affairs
3) Ministry of Civil Aviation 4) Ministry of Finance
148. Which word is declared as the Cambridge Dictionary’s Word of the Year 2018?
- 1) Nomophobia 2) Populism 3) Parmesan 4) Showboating
149. Which University has been ranked A+ in the National Assessment and Accreditation Council (NAAC) review 2018?
- 1) Jawaharlal Nehru University 2) University of Mumbai
3) Banaras Hindu University 4) Delhi University
150. The first ever India Indonesia Business forum (IIBF) was held at _____.
- 1) Chennai 2) Port Blair 3) Cochin 4) Visakhapatnam



