

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



DCA ENTRANCE EXAMINATION -VI
DEFENCE CAREER ACADEMY,
AURANGABAD.

As an ISO 9001 : 2008 - Certified

ENT : 2020-2021

TIME : 2.00 Hrs.

MATH & GAT

Sr. No.

MAXIMUM MARKS : 100

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 100 items (Questions). Question No. 1 to 100 (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.

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10. Read the questions carefully, Remember, answers are to be indicated in the Answer 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

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PART - I MATHS

1. Biggest 5 digit number + smallest 3 digit number
 - 1) 1000
 - 2) 10,0099
 - 3) 100000
 - 4) 99900
2. Least common multiple of 8,12 and 20 is
 - 1) 12
 - 2) 24
 - 3) 120
 - 4) 140
3. 10000 = ----- hundred
 - 1) 100
 - 2) 1000
 - 3) 10
 - 4) 10000
4. $9709 \times 5 \times 17 \times 0 \times 11 = \square$
 - 1) 2,88,240
 - 2) 74,055
 - 3) 0
 - 4) 96,08132
5. A number is divisible by 6, it is divisible by both
 - 1) 4&3
 - 2) 2&4
 - 3) 2&3
 - 4) 3&5
6. a number which is a factor of every number is factor
 - 1) 0
 - 2) 1
 - 3) 2
 - 4) none of these
7. Number of prime nubers between 50 to 60 is
 - 1) 1
 - 2) 2
 - 3) 3
 - 4) 4
8. Prime factorisation of 143 are :
 - 1) $2 \times 11 \times 13$
 - 2) 11×13
 - 3) $2 \times 3 \times 7$
 - 4) none of these
9. Successor of every even number is
 - 1) even
 - 2) prime
 - 3) odd
 - 4) none of these
10. HCF of 24,36 and 92 is
 - 1) 24
 - 2) 36
 - 3) 12
 - 4) 4
11. The prime number that comes just after 43 is -----
 - 1) 49
 - 2) 45
 - 3) 47
 - 4) none of these
12. Subtract $\frac{11}{30}$ from $\frac{12}{15}$
 - 1) $\frac{84}{35}$
 - 2) $\frac{11}{30}$
 - 3) $\frac{13}{30}$
 - 4) $\frac{17}{35}$
13. Reciprocal of $3\frac{1}{2}$ is
 - 1) $\frac{7}{2}$
 - 2) $\frac{2}{7}$
 - 3) $1\frac{2}{3}$
 - 4) none of these

14. Decimal form of $\frac{48}{1000}$ is
 1) 0.48 2) 4.8 3) 0.048 4) 48.00
15. $0.05 \times 0.09 \times 5 =$ -----
 1) 0.025 2) 0.225 3) 0.005 4) 0.0225
16. Difference of 32 and 27.091 is
 1) 30.791 2) 5.909 3) 4.909 4) 3.909
17. If the cost of 15 pens is Rs 148.50 then the cost of one pen is
 1) Rs. 12.80 2) Rs. 8.90 3) Rs. 10.90 4) Rs. 9.90
18. $58 + \frac{3}{100} + \frac{7}{1000} = ?$
 1) 58.0037 2) 58.37 3) 58.037 4) none of these
19. $2.1 + 3.5 - 1.5 \div 0.5 = ?$
 1) 5.6 2) 2.6 3) 3.6 4) 4.6
20. $7386 + 3333 -$ ----- $= 10010$
 1) 619 2) 609 3) 719 4) 709
21. The measurement of right angle is.
 1) 45° 2) 90° 3) 135° 4) 18°
22. 65 paise = Rupee.
 1) 6.5 2) 0.65 3) 65 4) 650
23. 89% is written as
 1) $\frac{89}{100}$ 2) $\frac{98}{100}$ 3) 8.9 4) $8\frac{9}{100}$
24. $\frac{6}{20}$ is equal to = -----%
 1) 5 2) 30 3) 20 4) 6
25. On a chess board percentage of black coloured squares is
 1) 50% 2) 60% 3) 15% 4) 75%
26. The average of 5, 0, 6, $\frac{1}{4}$ and $8\frac{3}{4}$ is
 1) 1 2) 2 3) 3 4) 4
27. The ratio of 96 m and 72 m is....
 1) 3:4 2) 4:3 3) 2:1 4) 4:1

28. The ratio of Rs 3 and 60 paise is
 1) 1:20 2) 5:1 3) 1:2 4) 20:1
29. Line has ----- end points
 1) no 2) 3 3) 2 4) 4
30. Angles are measured in
 1) compasses 2) protactor 3) degrees 4) centi metres
31. Perimeter of circle is called its
 1) circumference 2) area 3) diameter 4) none of these
32. A triangle can have
 1) one right angle 2) two right angles 3) three obtuse angles 4) none of these
33. Area of square is 144 sq m. its side measure
 1) 13m 2) 14m 3) 12m 4) 11m
34. Area of a reactangle is
 1) length \times breadth 2) length \times 4 3) 3 \times length 4) breadth \times 6
35. Perimeter of a triangle is the sum of the length of all lthe ----- sides
 1) 4 2) 2 3) 3 4) 6
36. The shape of a geometry box is
 1) reactangle 2) circle 3) square 4) cuboid
37. A quadrilateral has ----- diagonals
 1) 1 2) 4 3) 2 4) 3
38. The area of a square whose side is 500 cm is
 1) 25sqm 2) 25sqm 3) 25000 sqm 4) none
39. $4132 \times 27 = ?$
 1) 111564 2) 121564 3) 131564 4) 1331564
40. $(16 + 12) - (2 \times 6) =$
 1) 12 2) 18 3) 16 4) 14
41. Simplify : $7800 + 4200 - 2000 = ?$
 1) 10000 2) 10003 3) 11100 4) 10090
42. Fill in the blanks in the given series : 6, 10, 14, 18, 26, 30
 1) 17 2) 20 3) 22 4) 25
43. A man purchased goat for Rs. 465. He sold it all for Rs 435. How much did the lose?
 1) Rs. 40 2) Rs. 10 3) Rs. 30 4) Rs. 20
44. Fill in the blanks. i) 7 minutes = seconds.
 1) 180 2) 420 3) 180 4) 70

45. The length is 8 cm and breadth is 4 cm of Rectangle. Find the perimeter ?
 1) 24 cm 2) 18 cm 3) 12 cm 4) 2 cm
46. The side of a square sheet of paper is 25 cm. what is its area?
 1) 225 sq.cm 2) 625 sq.cm. 3) 125 sq. cm 4) 1225 sq. cm.
47. The length of book is 8 cm and its breadth is 9 cm, Find the area of note book?
 1) 56 sq. cm 2) 96 sq. cm 3) 72 sq. cm 4) 84 sq. cm
48. Total number of match points are =
 1) 7 2) 6 3) 9 4) 8
49. Each angle of a square is a
 1) Right angle 2) Acute angle 3) obtuse angle 4) None of these
50. In figure is cut in to two parts then it is
 1) not symmetrical 2) symmetrical 3) conical 4) None of these

PART - II GAT

* **Direction : Identify the plural forms.**

51. cherry : _____
 1) cherrys 2) cherries 3) cherryes 4) cherry's
52. wolf : _____
 1) wolfs 2) wolfes 3) wolves 4) wolvies
53. Mouse : ____
 1) mouses 2) mice 3) mouss 4) meuse

* **Direction : Fill in the blank's with choosing the currect options .**

54. This pair of jeans _____ very expensive.
 1) is 2) are 3) was 4) were
55. Jack _____ waiting for Ted near the library.
 1) am 2) can 3) was 4) ware

* **Direction : Identify the word opposite in meaning.**

56. Far × _____
 1) new 2) Away 3) Near 4) Nearby
57. Deep × _____
 1) Bottom 2) Shallow 3) Thin 4) Thick

58. Before × _____

- 1) Close 2) Open 3) Thin 4) After

* **Direction : Identify the correct spelling.**

59. 1) Descriptive 2) Descreptive 3) Discriptive 4) None of these

60. 1) Sirvey 2) Sarvey 3) Surve 4) Survey

61. 1) negateve 2) negetive 3) negative 4) nagetive

* **Direction : Write the masculine / feminine gender of these nouns.**

62. Nephew = _____

- 1) niece 2) empress 3) mare 4) vixon

63. Lion = _____

- 1) tigress 2) vixon 3) lioness 4) sheep

64. Emperor = _____

- 1) empress 2) lioness 3) vixon 4) niece

* **Direction : Identify the Pronoun.**

65. 1) me 2) so 3) but 4) out

66. In a certain code, TOGETHER is written as PQEGRJCT. In the same code, PAROLE will be written as

- 1) NCPQJG 2) NCQPJG 3) RCPQJK 4) RCTQNG

* **Direction : In each of the following questions, four words have been given, out of which three are alike in some manner and the fourth one is different. Choose out the odd one.**

67. 1) Nerves 2) Auricle 3) Artery 4) Valve

* **Direction : In each of the following questions, a number series is given with one term missing. Choose the correct alternative that will continue the same pattern and fill in the blank spaces.**

68. 462, 420, 380, (.....), 306

- 1) 322 2) 332 3) 342 4) 352

69. The town of Paranda is located on Green Lake. The town of Akram is west of Paranda. Tokhada is east of Akram but west of Paranda. Kakran is east of Bopri but west of Tokhada and Akaram. If they are all in the same district, which town is the farthest west?

- 1) Paranda 2) Kakran 3) Akram 4) Bopri

* **Direction : In each of the following questions, there is a certain relationship between two given words on one side of : : and one word is given on another side of : : while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair bear. Choose the correct alternative.**

70. Genuine : Authentic : : Mirage : ?

- 1) Image 2) Transpiration 3) Reflection 4) Illusion

71. 'Adjustment to environment' is called
1) Adaptation 2) Mimicry 3) hibernation 4) aestivation
72. Birds can fly due to light body weight. This is due to.
1) hollow bones 2) hard bones 3) soft bones 4) cylindrical bones
73. _____ grow above the ground:
1) Root system 2) Shoot system 3) Seedling 4) Leaves
74. There are _____ bones in human body.
1) 202 2) 203 3) 205 4) 206
75. When no force acts on a body, it must be _____
1) moving 2) at rest 3) either B or C 4) in uniform motion
76. Which of the following is a simple machine?
1) Tumbler 2) Spoon 3) Can 4) Bucket
77. Earth pulls every object towards it with a force called.
1) Friction 2) Gravity 3) Tension 4) Collision
78. The disease that can be spread through contaminated water.
1) diphtheria 2) diarrhoea 3) malaria 4) tetanus
79. The bones of our body form the system.
1) muscular 2) nervous 3) skeletal 4) digestive
80. A mango plant grows from a
1) stem cutting 2) bud 3) seed 4) layering
81. keep the birds warm while flying at high altitudes.
1) Beaks 2) Claws 3) Feathers 4) Hollow bone
82. Webbed feet is an adaptation of:
1) aerial birds 2) reptilian birds 3) aquatic birds 4) ostrich
83. maintains balance in a monkey
1) Tail 2) Hands 3) legs 4) Head
84. Which of the following cannot change in a physical change
1) volume 2) pressure
3) chemical composition 4) temperature
85. Which of the following is an example of a mixture?
1) Air 2) CO₂ 3) H₂O 4) Sugar
86. Asteroids are found between the orbits of
1) saturn and jupiter 2) mars and jupiter
3) the earth and mars 4) Mars and Saturn

87. The planet known as the “Earth’s Twin” is
1) Jupiter 2) Saturn 3) Venus 4) Mercury
88. What makes the universe?
1) Million of Galaxies 2) Millions of Stars 3) Earth 4) Satellites
89. From which word does the monsoon taken?
1) Latin 2) Arabic 3) English 4) None of these
90. Which of the following is tropical rain forest ?
1) Western Ghats Forest 2) Sahara Desert 3) Jaisalmer 4) Bikaner
91. River Yangtze flows in
1) South america 2) Australia 3) China 4) Africa
92. Which of the following is the smallest continent?
1) Africa 2) Asia 3) Australia 4) Antarctica
93. The jobs of contract workers are
1) temporary 2) permanent 3) both (1) and (2) 4) none of these
94. The shopkeeper are given a licence by
1) State Government 2) Municipal Corporation
3) Central Government 4) Court
95. Who was Aryabhata?
1) mathematician 2) scientist 3) archaeologist 4) none of these
96. Which was the first Asian country to launch an artificial satellite?
1) South korea 2) China 3) Japan 4) India
97. Where did ice-hockey originate ?
1) US. 2) Canada 3) U.K 4) Russia
98. In which of the following sports or games are cues used?
1) golf 2) billiards 3) hockey 4) table tennis
99. Which cartoon character was created by Walt Disney ?
1) Batman 2) Spider man 3) Mickey Mouse 4) He-man
100. Which region is called ‘the land of the midnight sun’
1) Egypt 2) Norway 3) Rome 4) Moscow
