DCA ENTRANCE EXAMINATION - VII

DEFENCE CAREER ACADEMY, AURANGABAD.

As an ISO 9001 : 2008 - Certified

ENT : 2020-2021	**MATH & GAT**	Sr. No.
TIME : 2.00 Hrs.		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 invetview 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.

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.
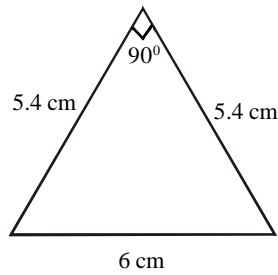
THANK YOU AND BEST OF LUCK

1. Product of two integers is - 48. If one of the integers is - 6, then the other is ------------

   1) 1   2) 288   3) 0   4) 8

2. Square of any negative integer is -------------

   1) Negative   2) Positive

   3) 0   4) Depends on the natural of integer

3. John's monthly salary is Rs. 12000. He spends Rs. 1450 for his son's education, Rs. 550 for purchasing clothes, Rs. 450 for purchasing vegetables, milk, etc., Rs. 1500 for purchasing medicine and pays a rent or Rs. 5000 in a particular month. How much does he save in this month?

   1) Rs. 4255   2) Rs. 4960   3) Rs. 3165   4) Rs. 3050

4. What least value should be given to the number so that the number 653*47 is divisible by 11 ?

   1) 9   2) 6   3) 7   4) 1

5. The HCF of two numbers is 28 and their LCM is 336. If one number is 112, then the other number is -----------------

   1) 64   2) 84   3) 34   4) 92

6. The two consecutive prime numbers with difference 2 are called-------------

   1) coprimes   2) twin primes   3) composite   4) even

7. The numbers which are not multiples of 2 are called ------ numbers.

   1) even   2) odd   3) prime   4) composite

8. Two tankers contain 850 litres and 680 litres of kerosene oil respectively, then the maximum capacity of a container which can measure the kerosene out of both the tankers when used at exact number of times is ---------------

   1) 170 litres   2) 85 litres   3) 34 litres   4) 10 litres

9. The numbers which have more than two factors are called --------------

   1) Prime   2) composite   3) Both (1) & (2)   4) none of these

10. The least number of square tiles that will be needed to pave a plot 225 m.

    1) 30 tiles   2) 15 tiles   3) 25 tiles   4) 45 tiles

11. The reciprocal of the smallest prime number is ---------------

    1) 0   2) $\dfrac{1}{2}$ 3) 1   4) 2

12. The numbers which have only two factors (1 and the number itself) are called as ------------

    1) composite   2) even   3) prime   4) none of these

13. Which of the following numbers is a perfect square?

1) 36   2) 81   3) 37   4) both a & b

14. 1265 is divisible by --------------

1) 2   2) 3   3) 10   4) 11

15. If a circle is divided into two equal parts, then equal part of the circle is called --------------

1) semicircle   2) major circle   3) minor circle   4) all of these

16. A cuboidal box has ------------------------ corner points.

1) 10   2) 6   3) 12   4) 8

17. Each surface of a box is the portion of a ------------ surface.

1) triangular   2) circular   3) flat   4) curved

18. Longest chord of the circle is -------------

1) diameter   2) chord   3) radius   4) minor chord

19. A cuboidal has ------------- edges representing the portions of lines.

1) 14   2) 8   3) 12   4) 16

20. The total boundary length of circle is called -------------

1) area   2) volume   3) circumference   4) diameter

21. A set of points which is a part of a line with two end points is ------------

1) line   2) line segment   3) ray   4) point

22. John turns right angle three times. How many degree does he turn through?

1) 90^0 2) 180^0 3) 330^0 4) 270^0

23. If two straight lines intersect, the measures of the vertically opposite angles are --------------

1) equal   2) not equal   3) right angle   4) can't be determined

24. Which of the following is reflex angle?

1) 180^0 2) 360^0 3) 270^0 4) 90^0

25. An acute angle is formed between the hands of a clock at --------------

1) 9 O' clock   2) 4 O' clock   3) 11 O' clock   4) 6 O' clock

26. The angle between two opposite rays is --------------

1) right   2) obtuse   3) actue   4) straight

27. Which of the following is an acute angle ?

1) 92^0 2) 181^0 3) 195^0 4) 83^0

28. Which of the following describes the given triangle ?

    1) isosceles, obtuse

    2) acute, equilateral

    3) lsosceles, right

    4) scalene, right

29. A triangle with one right angle and two acute angles is called ---------- angle triangle.

    1) right   2) acute   3) obtuse   4) scalene

30. An angle which is equal to 360^0 is called ---------- angle.

    1) right   2) complete   3) acute   4) obtuse

31. In a right angled triangle if an angle measures 35^0 then the measure of other angle is --------

    1) 65^0 2) 55^0 3) 45^0 4) 30^0

32. The angle that the hands of a clock make at 4 O' clock is -------------

    a) acute

    2) obtuse

    3) right

    4) straight

33. What shape does the faces of a cube make ?

    1) circle   2) triangle   3) square   4) pentagon

34. Sum of any two sides of a triangle is always ------------- the third side.

    1) less than   2) equal to   3) Greater than   less or equal

35. A parallelogram with all equal sides are called ------------

    1) rhombus   2) rectangle   3) polygon   4) none of these

36. A reflex angle is ------------ a straight angle.

    1) smaller than   2) larger than   3) equal to   4) one-half of

37. In Rajeev's rose garden, $\dfrac{3}{12}$ are white roses, $\dfrac{4}{12}$ are yellow and the rest are red roses. What fraction of the roses are red ?

    1) $\dfrac{1}{12}$ 2) $\dfrac{5}{12}$ 3) $\dfrac{3}{12}$ 4) $\dfrac{4}{12}$

38. Three equivalent fractions of $\dfrac{2}{3}$ are ------------

1) $\dfrac{2}{6}, \dfrac{3}{6}, \dfrac{4}{12}$
2) $\dfrac{4}{6}, \dfrac{6}{9}, \dfrac{8}{12}$
3) $\dfrac{3}{6}, \dfrac{7}{6}, \dfrac{8}{12}$
4) $\dfrac{4}{6}, \dfrac{8}{6}, \dfrac{3}{6}$

39. My elder sister divided a watermelon into 18 parts. I ate 7 out of them. My friend ate 4. What fraction of watermelon remained ?

1) $\dfrac{7}{18}$
2) $\dfrac{11}{18}$
3) $\dfrac{3}{18}$
4) $\dfrac{4}{18}$

40. Which number should come in place of ☐

$$\dfrac{1}{7} + \dfrac{2}{7} + \dfrac{\square}{7} = 1\dfrac{3}{7}$$

1) 1
2) 2
3) 3
4) 7

41. Which number is divisible by 11.

1) 308
2) 1331
3) 61809
4) all of above

42. The radii is 9 cm, what is the diameter?

1) 18 m
2) 18 cm
3) 18 cu.m
4) 18 cu.cm

43. Which is greater. 0.5 or 0.05

1) 0.5
2) equal
3) con't say
4) 0.05

44. 1200 is divisible by ....

1) 4
2) 9
3) 11
4) 13

45. If any number divides by 0, then the result will be -

1) 0
2) -1
3) cant do
4) not defiend

46. How is 3 : 45 pm written in the twenty four hour method?

1) 3 .45
2) 12.45
3) 15:45
4) 13:45.

47. The rate of interest is 12 p.a. and the period is 5 years find the interest on Rs. 100.

1) 42 Rs.
2) 38 Rs.
3) 60 Rs.
4) 40 Rs.

48. 18 m = ... cm

1) 1800
2) 180
3) 18
4) 18000

49. Find the value of : 50 % of 600

1) 50
2) 300
3) 30
4) 40

50. Lines in the same plane which intersect each other is called ....

1) Intersecting line
2) parallel line
3) Concurrent line
4) None of the above.

51. _____ is the noun

1) green   2) Purple   3) Peahen   4) Pink

*   **Direction : Identify the correct pronoun:**

52. _____ are my cousins.

1) me   2) our   3) they   4) them

53. Ratika and _____ will go to the market.

1) my   2) it   3) your   4) I

*   **Direction : Identify the correct plural form:**

54. hoof : _____

1) hoofs   2) hoofes   3) hooves   4) foofies

55. lady : _____

1) ladys   2) ladies   3) ladyes   4) lady's

*   **Direction : Identify the material noun:**

56 1) honour   2) wisdom   3) intellect   4) flag

57. 1) brightness   2) dress   3) kindness   4) darkness

*   **Direction : Identify the correct adjectives from the following:**

58. Molly has a _____ doll.

1) clever   2) smart   3) bad   4) pretty

59. A deer is a _____ animal.

1) bold   2) funny   3) cunning   4) timid

*   **Direction : Identify the feminine gender for the following:**

60. Waiter : _____

1) grand daughter   2) waitress   3) vixen   4) miece

61. headmaster : _____

1) lioness   2) grand daughter   3) headmistress   4) vixen

*   **Direction : Identify the correct adverb for the following:**

62. When will the flight leave? _____

1) politely   2) everywhere   3) fast   4) immediately

63. Where is my blue shirt?

1) there   2) early   3) slowly   4) always

64. How does a snail move _____?

1) fast   2) slowly   3) down   4) carefully

* **Direction : Identify the correct preposition:**

65. The sun was hiding _____ the cloud.

1) behind   2) infront of   3) on   4) in

66. If in a certain code, TEACHER is written as VECEJGT, how would DULLARD be written in the same code?

1) FWMNCTF   2) FWNNBTE   3) FWNNCSF   4) FWNNCTF

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

67. 1) Konark   2) Madurai   3) Ellora   4) Khajuraho

* **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. 5, 17, 37, 65, (......), 146

1) 95   2) 97   3) 99   4) 101

69. Ravi wants to go to the university. He starts from his home which is in the East and comes to a crossing. The road to the left ends in a theatre, straight ahead is the hospital. In which direction is the university?

1) North   2) South   3) East   4) West

* **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. Dog : Bark: : Goat: ?

1) Bleat   2) Howl   3) Grunt   4) Bray

71. The energy stored in a torch cell is.

1) light energy   2) electrical energy   3) chemical energy   4) potential energy

72. The path of electricity is called _____

1) circuit   2) filament   3) orbit   4) none of these

73. The force of attraction of a magnet is maximum at

1) its sides   2) its corners   3) its poles   4) the mid point

74. Metals can be drawn into thin wires. This property is called.

1) ductility   2) elasticity   3) volatility   4) malleability

75. Find the odd one out.

1) wool   2) polyester   3) silk   4) cotton

76. Water is absorbed by the _____ of a plant.

1) stem 2) leaf 3) root 4) flower

77. Which of the following shows a motion in a straight line ?

1) train on a straight bridge 2) tree swaying

3) child on a merry-go-round 4) none of these

78. Riaz takes 20 min to travel to his school with a speed of 3 m/s. How far is the school?

1) 2 km 2) 3.2 km 3) 3.6 km 4) 4.1 km

79. Reflecting solar films are used on the top of the cars to :

1) produce electricity 2) to absorb more light

3) to prevent heating by radiation 4) to make to strong

80. Conduction cannot take place in :

1) copper 2) iron 3) aluminium 4) vacuum

81. Focus is virtual in the case of :

1) concave miroor 2) convex mirror 3) plance mirror 4) none of the above

82. Burning of wood is a -------------- change.

1) reversible 2) physical 3) chemical 4) all of these

83. Starch is kind of ....

1) Carbohydrate 2) Fat 3) Protein 4) Vitamin

84. Which of the following material is lustrous?

1) Wood 2) Gold 3) Paper 4) Stone

85. Which country is most likely to be affected by cyclones?

1) nepal 2) indonesia 3) hungary 4) mongary

86. Sheep are kept indoors and fed on leaves, grain and dry fooder during _____ season.

1) summer 2) rainy 3) winter 4) spring

87. Which river's bank did the people live along in the ancient time?

1) Ganga 2) Narmada 3) Satluj 4) None of these

88. How did merchants travel?

1) With Caravans 2) Ships 3) Both (1) and (2) 4) None of these

89. How did the ancient people travel?

1) By buses 2) By trains 3) By Ships 4) On foot

90. Name the animal who gives milk

1) Cow 2) Goat 3) Sheep 4) All of these

91. Frame where were the Harappans got copper?

1) Mumbai   2) Delhi   3) Kerala   4) Rajasthan

92. Which of the following is the oldeat Veda?

1) Samaveda   2) Yajurveda   3) Rigveda   4) Atharveds

93. The star which indicates the north is called.

1) pole state   2) pole   3) north pole   4) south pole

94. Meteoroids are made up of

1) dust   2) pieces of rocks   3) gases   4) none of these

95. What is a globe?

1) Earth   2) True model of the earth

3) Both (1) and (2)   4) None of these

96. Which one of the following is the source olrf light on the earth ?

1) The moom   2) The sun   3) The satellite   4) The space

97. Which map gives more information?

1) Small scale map   2) Large scale map   3) Ordinary map   4) Name of these

98. Which gas is responsible for global warming?

1) O_2 2) CO_2 3) N_2 4) H_2

99. Who composed National Anthem ?

1) Pt. Jawaharlal Nehru   2) Lal Bahadur Shastri

3) Rabindranath Togore   4) Atal Bihari Vajpai

100. Dr. Ambedkar birth place?

1) Mahu   2) Mahad   3) Indore   4) None of these

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