

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



DCA ENTRANCE EXAMINATION - VII
DEFENCE CAREER ACADEMY,
AURANGABAD.

As an ISO 9001 : 2008 - Certified

ENT : 2018-2019

TIME : 2.00 Hrs.

MATH & 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 invetview 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.

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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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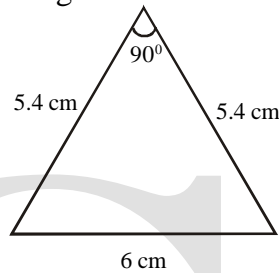
PART - I MATHS

- Write the greatest 4-digit number using different digits with 6 in the ten's place ?
1) 9865 2) 9867 3) 9687 4) 6987
- A bottle contains 920 ml of mustard oil. The total quantity of oil contained in 25 such bottles, is --

1) 23 litres 2) 25 litres 3) 24 litres 4) 22 litres
- Difference of 500 and 200 is -----
1) C 2) CCC 3) MMM 4) D
- Bobby's date of birth is 19th September. Express the date in Roman numeral.
1) XXI 2) XIXX 3) IIX 4) XIX
- The difference which cose on immediae right of ther hundreds place in the place value chart is ----
1) 998999 2) 9989999 3) 99899 4) 998099
- The largest four digit and smallest four digit numbers using the digits 4, 0, 3, 7, is -----
1) 4370, 4307 2) 3740, 3047 3) 7403, 3704 4) 7430, 3047
- 55 kg 200 g of sugar is distribute among 12 persons. The quantity of sugar received by each person is -----
1) 4 kg 200 g 2) 4 kg 400 g 3) 4 kg 600 g 4) 4 kg 800 g
- Place value and face value are always equal at which place ?
1) Hundred's 2) One's 3) Thousands's 4) Ten's
- The product of 64125 by 173 is
1) 11309625 2) 11093625 3) 1130685 4) 6337505
- Difference between the face values of 5 & 9 in 165, 234 & 842, 928 is -----
1) 4100 2) 5900 3) 4 4) 14
- 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
- Square of any negative integer is -----
1) Negative 2) Positive
3) 0 4) Depends on the natural of integer
- 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
- What least value should be given to * so that the number 653*47 is divisible by 11 ?
1) 9 2) 6 3) 7 4) 1

15. 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
16. The two consecutive prime numbers with difference 2 are called-----
 1) composites 2) twin primes 3) composite 4) even
17. The numbers which are not multiples of 2 are called ----- numbers.
 1) even 2) odd 3) prime 4) composite
18. 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 and exact number of times is -----
 1) 170 litres 2) 85 litres 3) 34 litres 4) 10 litres
19. The numbers which have more than two factors are called -----
 1) Prime 2) composite 3) Both (1) & (2) 4) none of these
20. 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
21. The reciprocal of the smallest prime number is -----
 1) 0 2) $\frac{1}{2}$ 3) 1 4) 2
22. 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
23. Which of the following numbers is a perfect square?
 1) 36 2) 81 3) 37 4) both a & b
24. 1265 is divisible by -----
 1) 2 2) 3 3) 10 4) 11
25. 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
26. A cuboidal box has ----- corner points.
 1) 10 2) 6 3) 12 4) 8
27. Each surface of a box is the portion of a ----- surface.
 1) triangular 2) circular 3) flat 4) curved
28. Longest chord of the circle is -----
 1) diameter 2) chord 3) radius 4) minor chord
29. A cuboidal has ----- edges representing the portions of lines.
 1) 14 2) 8 3) 12 4) 16
30. The total boundary length of circle is called -----
 1) area 2) volume 3) circumference 4) diameter

31. 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
32. John turns right angle three times. How many degree does he turn through?
 1) 90° 2) 180° 3) 330° 4) 270°
33. 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
34. Which of the following is reflex angle?
 1) 180° 2) 360° 3) 270° 4) 90°
35. 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
36. The angle between two opposite rays is -----
 1) right 2) obtuse 3) acute 4) straight
37. Which of the following is an acute angle ?
 1) 92° 2) 181° 3) 195° 4) 83°
38. Which of the following describes the given triangle ?
 1) isosceles, obtuse
 2) acute, equilateral
 3) isosceles, right
 4) scalene, right



39. A triangle with one right angle and two acute angles is called ----- angle triangle.
 1) right 2) acute 3) obtuse 4) scalene
40. An angle which is equal to 360° is called ----- angle.
 1) right 2) complete 3) acute 4) obtuse
41. In a right angled triangle if an angle measures 35° then the measure of other angle is -----
 1) 65° 2) 55° 3) 45° 4) 30°
42. The angle that the hands of a clock make at 5 O' clock is -----

- a) acute
 2) obtuse
 3) right
 4) straight



43. What shape are the faces of a cube ?
 1) circle 2) triangle 3) square 4) pentagon
44. 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

45. A parallelogram with all equal sides are called -----
 1) rhombus 2) rectangle 3) polygon 4) none of these
46. A reflex angle is ----- a straight angle.
 1) smaller than 2) larger than 3) equal to 4) one-half of
47. In Rajeev's rose garden, $\frac{3}{12}$ are white roses, $\frac{4}{12}$ are yellow and the rest are red roses. What fraction of the roses are red ?
 1) $\frac{1}{12}$ 2) $\frac{5}{12}$ 3) $\frac{3}{12}$ 4) $\frac{4}{12}$
48. Three equivalent fractions of $\frac{2}{3}$ are -----
 1) $\frac{2}{6}, \frac{3}{6}, \frac{4}{12}$ 2) $\frac{4}{6}, \frac{6}{9}, \frac{8}{12}$ 3) $\frac{3}{6}, \frac{7}{6}, \frac{8}{12}$ 4) $\frac{4}{6}, \frac{8}{6}, \frac{3}{6}$
49. 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) $\frac{7}{18}$ 2) $\frac{11}{18}$ 3) $\frac{3}{18}$ 4) $\frac{4}{18}$
50. Which number should come in place of
 $\frac{1}{7} + \frac{2}{7} + \frac{\square}{7} = 1\frac{3}{7}$
 1) 1 2) 2 3) 3 4) 7
51. Which number is divisible by 11.
 1) 308 2) 1331 3) 61809 4) all of above
52. The radii is 9 cm, what is the diameter?
 1) 18 m 2) 18 cm 3) 18 cu.m 4) 18 cu.cm
53. Which is greater. 0.5 or 0.05
 1) 0.5 2) equal 3) con't say 4) 0.05
54. 1200 is divisible by
 1) 4 2) 9 3) 11 4) 13
55. Division by zero is.
 1) 0 2) -1 3) cant do 4) not defiend
56. How is 3 : 45 pm written in the twenty four hour method?
 1) 3 .45 2) 12.45 3) 15:45 4) 13:45.
57. 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.
58. 18 m = cm
 1) 1800 2) 180 3) 18 4) 18000

59. Find the value of : 50 % of 600
 1) 50 2) 300 3) 30 4) 40
60. 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.
61. If every side of a room measures 5 m, how many cubic meter of air does it hold?
 1) 130 cu.m 2) 125.cu.m 3) 135 cu.m 4) 115 cu.m.
62. Find the value of 5^3
 1) 625 2) 125 3) 525 4) 225
63. $-7 - 8 - (-25) = ?$
 1) 10 2) 15 3) 16 4) 20
64. Add : $942.27 - 27.15 = \dots\dots\dots$
 1) 9151.2 2) 915.12 3) 915.18 4) 951.12
65. Sanjay bought a case of 100 mangoes for Rs. 300. He sold them all at Rs. 5 per mangoes. How much was his profit or his loss.
 1) Profit is Rs. 200 2) loss is Rs. 200 3) Profit is Rs. 20 4) loss is Rs. 20
66. Find the perimeter of the triangle whose sides are 18.4 m, 13.2 m and 18.5 m.
 1) 51.00 cm 2) 50.00 m 3) 48.30m 4) 50.1 m
67. How many lines can be drawn through point ?
 1) Ten 2) Infinite 3) Only 1 line 4) None of the above.
68. Simplify : $(-18) - (-13) = \dots\dots\dots ?$
 1) -3 2) 3 3) -5 4) 5
69. If Sagar scored 72 out of 100 marks in an exam, what was the percentage of the marks he scored?
 1) 76 % marks 2) 72 % marks 3) 96 % marks 4) 77 % marks
70. The length 13 cm and breadth 10 cm of rectangle find its area.
 1) 120 sq.cm 2) 130 sq. cm 3) 201 sq.cim 4) None
71. All sides are of different length.
 1) Isoscales 2) scalene 3) Right angle 4) Equilateral
72. HCF of 20, 28
 1) 4 2) 6 3) 8 4) None of these
73. If $m + 10 = 16$, $m = ?$
 1) 2 2) 26 3) 4 4) 6
74. Simplify : $10 + 3 \times 100 \div 5$
 1) 60 2) 75 3) 55 4) 70
75. Measurement of straight angle is.
 1) 45° 2) 90° 3) 180° 4) 360°

PART - II GAT

Q.76. to 78 : Read the following passage carefully and answer the questions choosing the correct option.

There is a widely held but mistaken belief that meetings for solving problems and making decisions. For a start, the number of people attending a meeting tends to be inversely proportional to their collective ability to reach conclusions and make decisions. And these are the least important elements. Instead hours are spent in side issues, playing elaborate games with one another.

76. According to the author, meetings
- 1) are a waste of time
 - 2) help to solve problems
 - 3) are a form of playing elaborate games
 - 4) allow decisions to be made
77. The words that show that many people believe meetings are important are
- 1) widely held
 - 2) collective ability
 - 3) number of people
 - 4) solving problems
78. The author believes in the sanctity of holding meetings for
- 1) practical value
 - 2) transactional features
 - 3) collective opinion
 - 4) decision-making

Q.79. to 84 : Read the following passage carefully and answer the questions choosing the correct option.

A camel and a jackal were friends. One day the jackal took his friend to a big sugarcane farm. It was on the opposite side of the river. After a sumptuous meal the jackal began to howl loudly. The camel pleaded jackal not to do so, but jackal said that it was his habit. Soon the farmers came and thrashed the camel badly. When the camel crossed the river, the jackal joined him on his back. The camel took deliberate dip in the water. when the jackal pleaded, the camel said that he had the habit of rolling in the water after every meal. The poor jackal was drowned.

79. _____ Were friends.
- 1) lion and the tiger
 - 2) camel and a jackal
 - 3) a fox & a jackal
 - 4) a camel and a lion
80. One day they all were in _____ farm.
- 1) sugercane
 - 2) carrot
 - 3) radish
 - 4) leafy-reg
81. After a splendid meal the jackal began to _____ loudly.
- 1) bray
 - 2) bark
 - 3) howl
 - 4) sing

82. While crossing the river _____ joined him on his back.
 1) camel 2) jackal 3) fox 4) lion
83. Camel had habit of _____ in the water.
 1) diving 2) swimming 3) rolling 4) bathings
84. The poor jackel was _____
 1) overjoyed 2) disappered 3) drowned 4) killed.

* **Direction : Identify the correct option as per required conditions:**

85. _____ is the noun in the given options.
 1) park 2) bitter 3) smart 4) sweet
86. _____ is the noun
 1) green 2) Purple 3) Peahen 4) Pink

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

87. _____ are my cousins.
 1) me 2) our 3) they 4) them
88. Ratika and _____ will go to the market.
 1) my 2) it 3) your 4) I

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

89. hoof : _____
 1) hoofs 2) hoofes 3) hooves 4) foofies
90. lady : _____
 1) ladys 2) ladies 3) ladyes 4) lady's

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

91. 1) honour 2) wisdom 3) intellect 4) flag
92. 1) brightness 2) dress 3) kindness 4) darkness

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

93. Molly has a _____ doll.
 1) clever 2) smart 3) bad 4) pretty
94. A deer is a _____ animal.
 1) bold 2) funny 3) cunning 4) timid

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

95. Waiter : _____
 1) grand daughter 2) waitress 3) vixen 4) miece
96. headmaster : _____
 1) lioness 2) grand daughter 3) headmistress 4) vixen

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

97. When will the flight leave? _____
1) politely 2) everywhere 3) fast 4) immediately
98. Where is my blue shirt?
1) there 2) early 3) slowly 4) always
99. How does a snail move _____?
1) fast 2) slowly 3) down 4) carefully

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

100. The sun was hiding _____ the cloud.
1) behind 2) in front of 3) on 4) in
101. 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 fourth one is different. Choose out the odd one.**

102. 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.**

103. 5, 17, 37, 65, (.....), 146
1) 95 2) 97 3) 99 4) 101
104. 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.**

105. Dog : Bark : : Goat : ?
1) Bleat 2) Howl 3) Grunt 4) Bray
106. The energy stored in a torch cell is.
1) light energy 2) electrical energy 3) chemical energy 4) potential energy
107. The path of electricity is called _____
1) circuit 2) filament 3) orbit 4) none of these
108. The force of attraction of a magnet is maximum at
1) its sides 2) its corners 3) its poles 4) the mid point
109. Metals can be drawn into thin wires. This property is called.
1) ductility 2) elasticity 3) volatility 4) malleability

110. Find the odd one out.
- 1) wool 2) polyester 3) silk 4) cotton
111. Water is absorbed by the _____ of a plant.
- 1) stem 2) leaf 3) root 4) flower
112. 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
113. 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
114. 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 storong
115. Conduction cannot take place in :
- 1) copper 2) iron 3) aluminium 4) vacuum
116. Focus is virtual in the case of :
- 1) concave miroor 2) convex mirror 3) plance mirror 4) none of the above
117. Burning of wood is a ----- change.
- 1) reversible 2) physical 3) chemical 4) all of these
118. Starch is kind of
- 1) Carbohydrate 2) Fat 3) Protein 4) Vitamin
119. Which of the following material is lustrous?
- 1) Wood 2) Gold 3) Paper 4) Stone
120. Which country is most likely to be affected by cyclones?
- 1) nepal 2) indonesia 3) hungary 4) mongary
121. Sheep are kept indoors and fed on leaves, grain and dry fooder during _____ season.
- 1) summer 2) rainy 3) winter 4) spring
122. Which river's bank did the people live along in the ancient time?
- 1) Ganga 2) Narmada 3) Satluj 4) None of these
123. How did mechants travel?
- 1) With Caravans 2) Ships 3) Both (1) and (2) 4) None of these
124. How did the ancient people travel?
- 1) By buses 2) By trains 3) By Ships 4) On foot
125. Name the animal who gives milk
- 1) Cow 2) Goat 3) Sheep 4) All of these
126. Frame where were the Harappans got copper?
- 1) Mumbai 2) Delhi 3) Kerala 4) Rajasthan

127. Which of the following is the oldest Veda?
 1) Samaveda 2) Yajurveda 3) Rigveda 4) Atharveds
128. The star which indicates the north is called.
 1) pole star 2) pole 3) north pole 4) south pole
129. Meteoroids are made up of
 1) dust 2) pieces of rocks 3) gases 4) none of these
130. What is a globe?
 1) Earth 2) True model of the earth
 3) Both (1) and (2) 4) None of these
131. Which one of the following is the source of light on the earth ?
 1) The moon 2) The sun 3) The satellite 4) The space
132. Which map gives more information?
 1) Small scale map 2) Large scale map 3) Ordinary map 4) Name of these
133. Which gas is responsible for global warming?
 1) O₂ 2) CO₂ 3) N₂ 4) H₂
134. Who composed National Anthem ?
 1) Pt. Jawaharlal Nehru 2) Lal Bahadur Shastri
 3) Rabindranath Tagore 4) Atal Bihari Vajpai
135. Dr. Ambedkar birth place?
 1) Mahu 2) Mahad 3) Indore 4) None of these
136. What is an important part of the government.
 1) Courts 2) Private organisation 3) Public School 4) Parliament
137. With which game is the word 'cannon' associated?
 1) chess 2) hockey 3) billiards 4) cricket
138. Who is the first woman Defence Minister of India?
 1) Sushama Swaraj 2) Nirmal Sitaraman 3) Uma Bharti 4) Mamata Banerjee
139. Who is the present Governor of RBI bank?
 1) Shaktikant Das 2) Subarao 3) Rangrajan 4) Raghuram Rajan
140. Who is the present president of India?
 1) Dr. A.P.J. Abdul Kalam 2) Ram Nath Kovind
 3) Pranab Mukharjee 4) Sharad Pawar
141. Newton's Law of Gravitation applies to:
 1) small bodies only 2) plants only
 3) All bodies irrespective of their size 4) For solar
142. Gravitational Force causes:
 1) Tides 2) Motion of moon 3) Both (a) and (b) 4) None of these

143. Underwater tunnel is known as
1) Runnel 2) Chunnel 3) Funnel 4) all of above
144. Bullet train that has speed of 300 km/hour is being used for transport in
1) Japan 2) Italy 3) Belgium 4) England
145. Who established Mughal Empire in India?
1) Akbar 2) Babar 3) Shahajan 4) Auranzeb
146. Table Tennis is played on ?
1) Mat 2) Board 3) Range 4) Course
147. Which of the following is not correct.
1) Horse Riding: Area 2) Golf : Course
3) Judo : Ring 4) Kabaddi : Court
148. Who is the author of the book Joothan?
1) Omprakash Valmiki 2) Ompakash Chauthala
3) B.R. Ambedkar 4) Prakash Ambedkar
149. Vote - It is called ?
1) Civic Right 2) Universal suffrage 3) Electrol process 4) Democracy
150. Who stands for
1) World Heavy organization 2) World Health organization
3) Wild Hen organization 4) Wild hot org.
