

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 : 2017-2018
TIME : 2.30 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. Carry only writing material with you in the Examination Hall.
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 140 items (Questions). Question No. 1 to 140 (MCQ) carry 1 mark each and Question No. 141 (Descriptive) carries 10 marks. 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 A NEW ONE.
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 140 counts, each subdivided in four { (a) (b) (c) (d) } 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 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

1. The number which is largest.
 a) 95698 b) 96589 c) 98569 d) 89596
2. The number which is smallest.
 a) 9989 b) 9999 c) 9899 d) 9998
3. Compare 1000 1003
 a) < b) > c) = d) none of these
4. One Lakh =
 a) 10000 b) 100000 c) 1000000 d) 1000
5. 1 metre = centimetre.
 a) 10 b) 100 c) 1000 d) 0.1
6. 1 kg = gram
 a) 10 b) 100 c) 1000 d) 0.1
7. 1 litre = millilitre.
 a) 10 b) 1000 c) 100 d) 0.1
8. 1 centimetre = millimetre.
 a) 10 b) 100 c) 1000 d) 0.1
9. The placevalue of 4 in number 1486.
 a) 4 b) 40 c) 400 d) 4000
10. The number XCIX is.
 a) 119 b) 99 c) 109 d) 121
11. The predecessor of 7000608
 a) 7000607 b) 7000609 c) 7000508 d) 6000507
12. The successor of 8294099
 a) 829400 b) 8294100 c) 8294111 d) 8294110
13. Factor of 90
 a) 12 b) 4 c) 8 d) 15
14. Multiple of 7
 a) 24 b) 34 c) 42 d) 69
15. Prime factor of 100
 a) 2 b) 3 c) 4 d) 10
16. The number is divisible by 5
 a) 1234 b) 4310 c) 2314 d) 1324
17. The number is divisible by 2
 a) 4567 b) 6574 c) 4765 d) 7645

18. The number is divisible by 4
 a) 7718 b) 9636 c) 1134 d) 7714
19. The number is divisible by 3
 a) 3890 b) 9768 c) 199 d) 760
20. L.C.M. of 12 & 8 is
 a) 4 b) 8 c) 12 d) 24
21. H.C.F of 12 & 16 is
 a) 4 b) 8 c) 24 d) 48
22. An angle has vertex.
 a) 1 b) 2 c) 3 d) 4
23. Measurement of acute angle is
 a) $< 90^{\circ}$ b) $> 90^{\circ}$ c) $= 90^{\circ}$ d) none of these
24. Measurement of obtuse angle is
 a) $< 90^{\circ}$ b) $> 90^{\circ}$ c) $= 90^{\circ}$ d) none of these
25. Measurement of straight angle is.
 a) 45° b) 90° c) 180° d) 360°
26. If all sides of triangle are different then the triangle is
 a) scalence b) isoscales c) equilateral d) none of these
27. If only 2 sides of triangle are equal then the triangle is
 a) scalene b) isoscales c) equilateral d) none of these
28. A cube has surface.
 a) 4 b) 6 c) 8 d) 12
29. Aninteger 25°C below.
 a) $- 25^{\circ}\text{C}$ b) $+25^{\circ}\text{C}$ c) 25°C d) -2.5°C
30. $-21 + 5 = \square$
 a) -26 b) 26 c) -16 d) +16
31. $-16 - 8 = \square$
 a) -24 b) 24 c) -8 d) 8
32. $\frac{1}{3} \square \frac{2}{6}$
 a) $>$ b) $<$ c) 0 d) none of these
33. $\frac{5}{6} \square \frac{15}{18}$
 a) $<$ b) $>$ c) $=$ d) none of these
34. $\frac{3}{6} \square \frac{3}{8}$
 a) $<$ b) $>$ c) $=$ d) none of these

35. $2\frac{1}{4} = \square$

a) $\frac{6}{4}$

b) $\frac{7}{4}$

c) $\frac{9}{2}$

d) $\frac{9}{4}$

36. $\frac{35}{3} = \square$

a) $11\frac{3}{2}$

b) $11\frac{2}{3}$

c) $11\frac{4}{3}$

d) $11\frac{3}{3}$

37. $\frac{2}{5} + \frac{1}{5} = \square$

a) $\frac{3}{10}$

b) $\frac{2}{25}$

c) $\frac{3}{5}$

d) none of these

38. $\frac{6}{7} - \frac{2}{7}$

a) $\frac{4}{49}$

b) $\frac{8}{7}$

c) $\frac{4}{7}$

d) $\frac{12}{49}$

39. $0.9 + \dots = 1$

a) 0.01

b) 0.001

c) 0.001

d) 0.1

40. $2.1 + 0.9 = \dots$

a) 3

b) 11.0

c) 2.10

d) 21.0

41. The number 7 tens 8 ones 4 tenth

a) 784

b) 7.84

c) 0.784

d) 78.4

42. Four hundredth.

a) 400

b) 0.4

c) 0.04

d) 0.004

43. $\frac{54}{10} = \dots$

a) 0.54

b) 5.4

c) 540

d) 0.054

44. $\frac{3087}{1000}$

a) 3.087

b) 30.87

c) 308.7

d) 30879

45. $\frac{143}{100}$

a) 0.143

b) 14.3

c) 14300

d) 1.43

46. $0.09 + 0.4$

a) 0.13

b) 0.49

c) 1.3

d) 4.9

47. $0.8 - 0.003$
 a) 0.005 b) 0.011 c) 0.797 d) 7.97
48. $217 \text{ ml} = \dots\dots\dots \text{ Litre.}$
 a) 2.17 b) 21.7 c) 2170 d) 0.217
49. $6 \text{ kg } 9 \text{ gram} = \dots\dots\dots \text{ kilogram.}$
 a) 6.009 b) 6.09 c) 6.9 d) 0.69
50. $40 \text{ mm} = \dots\dots\dots \text{ centimetre.}$
 a) 0.004 b) 0.64 c) 0.4 d) 4
51. $9.1 \square 9.09$
 a) < b) > c) = d) none of these
52. $\frac{1}{10} \square 0.11$
 a) < b) > c) = d) none of these
53. Perimetre of square with 2 cm sides is ...
 a) 4 cm b) 8 cm c) 16 cm d) 6 cm
54. The perimetre of length 10 cm & breadth 5 cm is.
 a) 15 cm b) 50 cm c) 60 cm d) 30 cm
55. The perimetre of an equilateral triangle whose sides are 3 cm.
 a) 6 cm b) 9 cm c) 12 cm d) 27 cm
56. The area of a square whose sides are 9 cm is
 a) 18 sq. cm. b) 36 sq. cm. c) 72 sq. cm. d) 81 sq.cm.
57. A room is 9 metre long & 7 metre wide its area is.
 a) 16 sq. cm. b) 32 sq. cm. c) 64 sq. cm. d) 63 sq. cm.
58. If $a + 2 = 8$ then $a = ?$
 a) 10 b) 4 c) 6 d) 16
59. If $4 + 2x = 12$ then $x = ?$
 a) 6 b) 4 c) 2 d) 8
60. If $\frac{x}{11} = 5$ then $x = ?$
 a) 22 b) 44 c) 110 d) 55
61. $2y - 1 = 11$ then $y = ?$
 a) 12 b) 6 c) 22 d) 21
62. $8(500 + 2) = ?$
 a) 4008 b) 4000 c) 516 d) 4016
63. $30 : 40 = \dots\dots$
 a) 45 : 60 b) 40 : 60 c) 50 : 60 d) 20 : 60
64. The ratio 50 paise to 5 Rs. is
 a) 1 : 10 b) 1 : 100 c) 1 : 1000 d) 1 : 1

65. The ratio of 30 minute to 3 hour is
 a) 30 : 3 b) 3 : 30 c) 2 : 3 d) 1 : 6
66. If 9 metre of cloth cost Rs. 45 then cost of 5 metre cloth is.
 a) 25 Rs. b) 35 Rs. c) 30 Rs. d) 40 Rs.
67. If the radius of circle is 8 cm then diametre is.
 a) 4 cm b) 2 cm c) 12 cm d) 16 cm
68. All angles of square are
 a) acute angle b) obtuse angle c) straight angle d) right angle
69. A has only 2 lines of summetry.
 a) scalence triangle b) isoscales triangle c) equilateral triange d) rectangle
70. A train covers distance of 300 km in 5 hours how much distance will it cover in 2 hour.
 a) 120 km b) 60 km c) 240 km d) 180 km
71. The ratio of green shirt ot blue shirt is 3:5. If there are 15 green shirt then how many blue shirts are there?
 a) 20 b) 25 c) 30 d) 10
72. Jack is 25 years younger than his mother together their ages add up to 89 then how old is Jack?
 a) 64 b) 32 c) 57 d) 54
73. $4(100) - 4(20) + 4(5)$
 a) 485 b) 500 c) 340 d) 320
74. If A triangle whose 2 sides are 45 cm & third sides are 50 cm then perimetre is.
 a) 140 cm b) 95 cm c) 135 cm d) 190 cm
75. Three children weight 4 kg 700, 5 kg., 200g & 7 kg, 310 g.
 a) 17 kg 210 g b) 17 kg 110 g c) 17 kg 21 g d) 17 kg 310 g

PART - II GAT

- * **Q.76. to 79 : Read the following passage carefully and answer the questions choosing the correct option.**

PASSAGE - I

When I grow up, I am Going to be the prime minister of India. people always laugh when I say that, but I am sure that I will do it. Everyone in my class asks me what to do when they have a problem, land my teacher always trusts me when something needs to be done in school. I want to make things better for everyone. I want us to have good hospitals and roads and schools. I want to make sure that there are may good scientists in India who will invent cures for diseases and send a spaceship to Mars.

76. Dolma wants to become -----
 a) The chief Minister of India b) The finance Minister of India
 c) The Governor of India d) The Prime Minister of India
77. ----- When I say that
 a) People make fun of b) People take it easy
 c) People always laugh d) People always complain

78. Teacher always trusts her -----
 a) When something needs to be done in school b) When she tells something
 c) because of her honesty d) Due to her simplicity
79. Dolma wants to have
 a) sweet and fun b) much money and time
 c) good hospitals roads and schools d) good friend circle

Q.80. to 83 : Read the following passage carefully and answer the questions choosing the correct option.

PASSAGE - II

How bright on the blue
 Is a kite when it's new!
 Whith a dive and a dip
 It snaps its tail
 Then soars like a ship
 With only a sail
 As over tides
 Of wind it rides,
 Climbs to the crest
 Of a gust and pulls,
 Then seems to rest
 As wind falls.

80. When the kite will a new one -----
 a) It would look bright in the blue sky b) It won't look good to fly
 c) It would beautifully go long time d) It would not fly.
81. Rhyming word for 'dip' is -----
 a) new b) rides c) ship d) rest
82. How will kite soar ?
 a) like a boat b) like a ship c) like a cloud d) like a balloon
83. ----- the kite climbs to the crest.
 a) of a dust and fog b) of a gust and pulls c) of a vibrant twist d) with gustful way
- * **Direction :Answer the following questions by identifying noun.**
84. Service is impossible without recommendation.
 a) impossible b) is c) without d) recommendation
85. Last night it heavily poured.
 a) night b) is c) heavily d) Last

* **Direction :Identify the Gender going opposite.**

86. Peacock

- a) cock b) pigeon c) peahen d) hen

87. Empress

- a) king b) queen c) princess d) emperor

* **Direction :Identify the correct 'plural' form of the words given below**

88. Piano

- a) pianos b) pianoes c) piano's d) piyanos

89. Dwarf

- a) dwarfs b) dwarf's c) dwarves d) dwarfes

90. Furniture

- a) furnitures b) furniture's c) furniture d) furnitures

* **Direction :Find the word with correct spellings.**

91. a) theatre b) thiatler c) theater d) theator

92. a) vehical b) vehicle c) vihecle d) vehecle

* **Direction :Give the synonyms of :-**

93. Bright

- a) clever b) improving c) good d) bad

94. Timid

- a) cowardish b) brave c) bold d) irritating

* **Direction :Identify the pronoun.**

95. He needs to look into that matter.

- b) needs b) look c) he d) matter

* **Direction :Identify the verb.**

96. Nothing is so possible in the world.

- a) nothing b) possible c) is d) world

* **Direction :Give the Antonyms of :-**

97. Simple

- a) lucid b) easy c) complex d) conjusted

98. Amazing

- a) crying b) langhing c) shocking d) mesmarizing

* **Direction : Identify the adjectives from the followings.**

99. a) magnificent b) significance c) wisdom d) goodness

100. a) well b) will c) wall d) wheel

101. In a certain code, TRIPPLE is written as SQHOOKD. How is DISPOSE written in that code?

- a) CHRONRD b) DSOESPI c) ESJTPTF d) ESOPSID

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

102. a) Lima b) Algiers c) New York d) Tokyo

- * **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. 1, 6, 13, 22, 33, (.....)
- a) 44 b) 45 c) 46 d) 47
104. I am facing South. I turn right and walk 20 m. Then I turn right again and walk 10m. Then I turn left and walk 10 m and then turning right walk 20 m. Then I turn right again and walk 60m. In which direction am I from the starting point?
- a) North b) North-west c) East d) North-east
- * **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. Moon : Satellite : : Earth?
- a) Sun b) Planet c) Solar system d) Asteroid
106. Desert animals live in _____
- a) Burrows b) sand c) mud d) den
107. _____ do not have gills.
- a) catfish b) gold fish c) dolphins d) Bombay duck
108. which of the following reproduce by laying eggs.
- a) python b) elephant c) human d) monkey
109. _____ is an example of herb
- a) neem b) banyan c) mint d) tamarind
110. _____ plant shows fibrous roots
- a) marigold b) mango c) custard d) apple
111. _____ is not an example of grass
- a) bamboo b) rice c) wheat d) ginger
112. _____ water is saline
- a) lake b) sea c) river d) pond
113. world water day observed on _____
- a) 22nd march b) 23rd march c) 14th nov. d) 31st dec.
114. by _____ process plants loss water
- a) evaporation b) transpiration c) excretion d) respiration
115. Which of the following shows a motion in a straight line ?
- a) train on a straight bridge b) tree swaying
- c) child on a merry-go-round d) none of these

116. Riaz takes 20 min to travel to his school with a speed of 3 m/s. How far is the school?
 a) 2 km b) 3.2 km c) 3.6 km d) 4.1 km
117. Reflecting solar films are used on the top of the cars to :
 a) produce electricity b) to absorb more light
 c) to prevent heating by radiation d) to make to storong
118. Conduction cannot take place in :
 a) copper b) iron c) aluminium d) vacuum
119. Focus is virtual in the case of :
 a) concave miroor b) convex mirror c) plance mirror d) none of the above
120. In the case of a concave mirror, the reflected rays are parrallel when the object is placed at :
 a) focus b) centre of curvature
 c) between focus and the pole of the mirror d) beyond the centre of curvature
121. Which planet travels the longest in its revolution around the sun ?
 a) Earth b)Jupiter c) Neptune d) Mercury
122. The time difference between India and England is
 a) 5 Hrs. 30 Min. b) 5 Hrs. c) 5 Hrs. 20 Min. d) 5 Hrs. 5 Min.
123. An arrow on a map points to the _____ direction.
 a) East b) West c) North d) South
124. India is the _____ most populous country
 a) First b) Second c) Third d) Fourth
125. _____ is the closest planet to the sun
 a) Mercury b) Venus c) Saturn d) Jupiter
126. The Tropic of Capricorn is located at _____
 a) 23 1/2° North b) 23 1/2° South c) 66 1/2° North d) 66 1/2° South
127. The 0° Meridian is also know as _____
 a) Equator b) Tropic of Cancer c) Tropic of Capricorn d) None of this
128. The moment of the earth around the sun is known as.
 a) Rotation b) Revolution c) Indignation d) Name of this
129. Early people painted on the _____ of caves.
 a) Wall b) Paper c) Wood d) None of this
130. Grasslands developed around _____ years age
 a) 12000 b) 1300 c) 10000 d) 14000
131. In which unit is the distance between celestial bodies measured ?
 a) Meter b) Kilometer c) Mile d) Light year

132. Which is the largest island in the India Ocean
a) Shri Lanka b) Madagascar c) Java d) Sumatra
133. Where is the Aravalli Range of mountain located ?
a) Madhya Pradesh b) Gujarat c) Rajasthan d) Maharashtra
134. Which bird lays the largest egg ?
a) Golden Eagle b) Osprey c) Falcon d) Ostrich
135. Where is the Gateway of India situated ?
a) Mumbai b) Kolkata c) Delhi d) Chennai
136. How many spokes are there in the Ashoka Chakara in the India Flag ?
a) 10 b) 20 c) 30 d) 24
137. Where did ice-hockey originate ?
a) U.S b) Canada c) U.K d) Russia
138. Which is the national bird of India ?
a) Eagle b) Peacock c) Parrot d) Swan
139. What is the Currency of Yemen ?
a) Dirham b) Peso c) Riyal d) Kyat
140. The theory of economic drain during British imperialism was propounded by.
a) Jawaharlal Neharu b) Dadabhai Naoraji c) R.C. Dutta d) M. K. Gandhi

PART - III ESSAY

* Write an essay on one of the followings.

10 M

1. My favourite teacher
2. My favourite game
3. Picnic
