

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



DCA ENTRANCE EXAMINATION -V
DEFENCE CAREER ACADEMY,
AURANGABAD.

As an ISO 9001 : 2008 - Certified

ENT : 2018-2019

TIME : 02.00 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 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 Sheet

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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 MATHS

1. Fill in the blank : 24×10000
1) 2400 2) 24000 3) 240000 4) 24
2. How many faces are there in a brick?
1) 6 2) 8 3) 12 4) 5
3. If x is an odd number, what will be the next odd numbers ?
1) $2x$ 2) $x + 1$ 3) $x + 2$ 4) $2x + 2$
4. $15B \times 2W = ?$
1) 30B 2) 30W 3) 30BW 4) 30
5. Write the date 3 days before August 8.
1) 5 August 2) 4 August 3) 6 August 4) none of these
6. How many odd numbers are there in between 2 to 18 ?
1) 5 2) 10 3) 4 4) 8
7. $7829 - 3240 = \dots\dots\dots$
1) 4598 2) 4589 3) 4985 4) 4895
8. Find the perimeter of the rectangle.
 $l = 8 \text{ cm}, b = 12 \text{ cm}.$
1) 100 cm 2) 40 cm 3) 50 cm 4) 60 cm
9. How many two-digit prime numbers are there between 10 and 50?
1) 12 2) 11 3) 13 4) 10
10. Which of the following numbers is a perfect square ?
1) 130 2) 125 3) 144 4) 660
11. If $x - 12 = 12$, then which number should be in the answer?
1) 28 2) 144 3) 24 4) 26
12. 15 minutes before bed time. 9.45 | ?
1) a.m. 2) p.m 3) both (1) & (2) 4) none of these
13. $8 \text{ kg} = \dots\dots\dots \text{ gm}.$
1) 80 2) 800 3) 8000 4) 80000
14. $10 \text{ L } 25 \text{ ml} = \boxed{} \text{ ml}.$
1) 1025 2) 100025 3) 125 4) 10,025
15. $7 \times 3 + 9 - 12 = ?$
1) 14 2) 18 3) 17 4) 16
16. $45 + \boxed{?} = 65$
1) 19 2) 36 3) 18 4) 20
17. Which of the following number does not have a remainder, when divided by 8 ?
1) 73 2) 64 3) 42 4) 81
18. $2643 + 1956 = ?$
1) 1599 2) 3599 3) 4599 4) 4598

19. 25 m = ----- cm.
- 1) 35 2) 250 3) 2500 4) 35000
20. What digit should be put in the 16? + 224 = 386
- 1) 2 2) 4 3) 3 4) 6
21. What is the correct pair of mixed number converted to improper fraction out of alternatives given below?
- 1) $9 \frac{3}{4} = \frac{42}{5}$ 2) $10 \frac{7}{9} = \frac{97}{9}$ 3) $3 \frac{1}{9} = \frac{25}{9}$ 4) $20 \frac{4}{8} = \frac{205}{8}$
22. What is the product of 25 and 5?
- 1) 525 2) 20 3) 125 4) 30
23. Add: $\frac{2}{4} + \frac{1}{4} = \square$
- 1) $\frac{4}{4}$ 2) $\frac{1}{4}$ 3) $\frac{3}{4}$ 4) $\frac{1}{3}$
24. If $125 \div 5 = ?$
- 1) 25 2) 18 3) 10 4) 15
25. $5 \times 2 + 4 = ?$
- 1) 12 2) 14 3) 15 4) 24
26. One fourth of number 40
- 1) 20 2) 28 3) 10 4) 160
27. If the numbers 50055, 50555, 50550, 50505 are arranged in the ascending order which will the second number.
- 1) 50055 2) 50550 3) 50505 4) 50555
28. Which of the following numbers is divisible by all the three numbers 2, 4 and 6 ?
- 1) 72 2) 74 3) 89 4) 67
29. 5 kg = gm
- 1) 50 2) 500 3) 0.5 4) 5000
30. 1 kg = 5 \times \square g
- 1) 100 2) 1000 3) 200 4) 2000
31. The improper fraction of $3\frac{6}{7}$ is
- 1) $\frac{27}{7}$ 2) $\frac{9}{7}$ 3) $\frac{25}{7}$ 4) $\frac{27}{6}$
32. Perimeter of square whose sides are 10 cm.
- 1) 20 cm 2) 30 cm 3) 40 cm 4) 100 cm

33. $10 \div \boxed{?} = 2$ Which of the following numbers would come in place of question mark?
 1) 4 2) 5 3) 3 4) 2
34. Diameter = 50 cm, $r = ?$
 1) 50 cm 2) 100 cm 3) 25 m 4) 25 cm
35. The largest four digit number using the digit 7, 4, 5, 2
 1) 2457 2) 5472 3) 2754 4) 7542
36. If $\frac{12}{7} - \frac{5}{7} = ?$
 1) $\frac{17}{7}$ 2) $\frac{7}{17}$ 3) $\frac{12}{7}$ 4) 1
37. Determine pattern and find out next 3 numbers.
 i) 1, 4, 9, 16, \square , \square , \square
 1) 25, 36, 49 2) 36, 25, 49 3) 49, 25, 36 4) 49, 25, 81
38. Add : $3248 + 342$
 1) 9034 2) 3905 3) 3590 4) 3509
39. $69999 + 1 = ?$
 1) 79999 2) 79910 3) 70000 4) 79990
40. What is the expanded form at 909990 ?
 1) $900000 + 90 + 9000 + 9$ 2) $9000 + 90 + 90000 + 900$
 3) $900 + 9 + 90000$ 4) $90 + 9000 + 900000 + 900$
41. Convert the improper fraction $\frac{14}{3}$ into a mixed number.
 1) $1 \frac{3}{5}$ 2) $4 \frac{2}{3}$ 3) $3 \frac{1}{3}$ 4) $2 \frac{5}{3}$
42. $\underline{\quad} \times 24 = 24000$
 1) 100 2) 1000 3) 10 4) 10000
43. How many sides does a square have ?
 1) 4 2) 3 3) 2 4) 5
44. Complete $45 \times 45 = 2025$
 $55 \times 55 = 3025$
 $65 \times 65 = \dots\dots\dots$
 1) 5625 2) 4225 3) 1225 4) 2025
45. The cost of 4 TV sets is Rs. 9656. Find the cost of each set.
 1) 4241 2) 2414 3) 2144 4) 2441

46. $120 < 123 < 210 < 313$ Which will be the third number if the sequence given above is reversed?
 1) 210 2) 120 3) 123 4) 213
47. $\frac{2}{?} = \frac{6}{15}$
 1) 3. 2) 2 3) 5 4) 1
48. What are the factors of 10 (prime factor)
 1) 5×1 2) 2×5 3) 10×1 4) none of these
49. $\frac{1}{3}$ is equivalent to
 1) $\frac{1}{6}$ 2) $\frac{2}{6}$ 3) $\frac{3}{6}$ 4) $\frac{3}{4}$
50. Divide : $7 \overline{)98}$
 1) 12 2) 13 3) 15 4) 14
51. Write the fractions : Two fifths
 1) $\frac{5}{2}$ 2) $\frac{2}{5}$ 3) $\frac{1}{5}$ 4) $\frac{10}{5}$
52. The number 1 more than 999 =
 1) 10 2) 100 3) 1000 4) 10,000
53. Perimeter of triangle whose sides are 15 cm, 12 cm, 8 cm
 1) 34 cm 2) 35 cm 3) 36 cm 4) 37 cm
54. 81 m = cm ?
 1) 81000 2) 8100 3) 81 4) 801
55. Calculate the number of days between. August 20 and september 1
 1) 10 2) 11 3) 9 4) 13
56. equivalent fraction of $\frac{7}{9}$ is.
 1) $\frac{9}{7}$ 2) $\frac{14}{18}$ 3) $\frac{100}{81}$ 4) none of these
57. Find the perimeter of the squares whose side is 20 cm.
 1) 80 cm 2) 100 cm 3) 120 cm 4) 40 cm
58. Which of the following is the correct method for the subtraction of $\frac{13}{3} - \frac{5}{3}$?
 1) $\frac{5 \times 4}{9 \times 9}$ 2) $\frac{5+4}{9+9}$ 3) $\frac{13-5}{3}$ 4) $\frac{5-4}{9}$

59. $1000 = \underline{\hspace{2cm}}$ hundreds
 1) 10 2) 1 3) 5 4) 100
60. The number of zeroes that come after 1 for 10 millions is:
 1) 8 2) 7 3) 6 4) 9
61. Addend + addend = $\underline{\hspace{2cm}}$
 1) product 2) difference 3) sum 4) quotient
62. Number which is divisible by 11 is
 1) 74, 396 2) 45, 703 3) 60,390 4) 98, 498
63. Round off to nearest thousands. The given number is 24, 500.
 1) 24, 400 2) 24,600 3) 25,000 4) 24,000
64. The numbers which are multiples of 2 are called:
 1) even 2) odd 3) prime 4) composite
65. $1000 - 99 = \dots\dots\dots$
 1) 901 2) 999 3) 1001 4) 989
66. $18 \times 6 = \dots\dots\dots$
 1) 118 2) 128 3) 108 4) 186
67. 6 kg = $\dots\dots\dots$ gram.
 1) 600 2) 6000 3) 60 4) 6
68. 8 Rupees = $\dots\dots\dots$ paise.
 1) 8 2) 80 3) 8000 4) 800
69. No. of days in April?
 1) 29 2) 31 3) 28 4) 30
70. The longest chord of a circle is its.....
 1) radius 2) diameter 3) arc 4) circumference
71. Time duration between 7. a.m. and 11.30 a.m.
 1) 5 hr 30 min 2) 4 hr 30 min
 3) 3 hr 30 min. 4) 4 hr
72. 7 O'Clock in morning.
 1) 7 a.m. 2) 7 p.m.
 3) Both (1) & (2) 4) None of these
73. 3 O' clock in afternoon.
 1) 3 a.m. 2) 3 p.m.
 3) Both (1) & (2) 4) None of these
74. $16 \times 8 = \dots\dots\dots$
 1) 127 2) 128 3) 118 4) 138

PART - II GAT

1) 4

2) 6

3) 8

4) 12

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

The dabbawallahas are partly a by-product of Mumbai's overcrowding. There was a time when many men could get home to lunch. But those more comfortable days ended as the city grew. But the conservatism of married men being well known, they still wanted home-made lunch. An Indian loves his lunch as much as anybody and feels that only his wife can guarantee the quality, quantity he requires, that restaurant food is expensive, of poorer quality and is served in meager portions.

76. According to the author, the dabbawallahas
- 1) Are responsible for the overcrowding of Mumbai
 - 2) Often create a lot of problems for the city
 - 3) Have come mostly from rural areas
 - 4) Came into existence as a consequence of Mumbai's overcrowding
77. The past was more comfortable for the people of Mumbai because
- 1) many of them were rich and could afford good food
 - 2) they could bring home-made food our lunch
 - 3) many of them could go home to lunch
 - 4) they could eat their lunch outside
78. Which of the following best describes the author's attitude to the dabbawallahas?
- 1) objective
 - 2) entihusiastic
 - 3) appreciative
 - 4) critical

- * **Direction Q.79. to 83 :Read the following passage carefully and answer the questions choosing the correct option.**

One upon a time there was a fisherman called, Malhar. He was living at the seashore and used to go fishing.

Once day asusual he was catching fish, a strange thing happened. He got a golden fish in his net. When he tried to take out it, it started speaking. The fish said," O Malhardada, Let me go." Maher was very kind. He let it go and returned home empty handed.

79. Malhar was _____
- 1) carpenter
 - 2) fisherman
 - 3) teacher
 - 4) farmer
80. He was living near _____
- 1) a bus stop
 - 2) a railway station
 - 3) the sea
 - 4) the garden
81. '_____' that strange thing happened one day.
- 1) fish talking
 - 2) fish diving
 - 3) fish catching
 - 4) fish swimming
82. The fish said,"_____"
- 1) Let me play
 - 2) Let me sleep
 - 3) Let me go
 - 4) Let me run

83. Malhar was _____

- 1) cruel 2) rich 3) poor 4) kind

* **Direction : Identify the Noun from the following.**

84. 1) played 2) caught 3) cot 4) ploughed

85. 1) decent 2) dance 3) super 4) good

86. 1) donkey 2) drag 3) frank 4) decent

87. 1) angry 2) ankle 3) anxious 4) answerable

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

88. Old × _____ (clothes)

- 1) new 2) dirty 3) cold 4) young

89. ever × _____

- 1) everyday 2) forever 3) never 4) no where

* **Direction : Identify the plurals.**

90. Tomato : ____

- 1) Tomatos 2) Tomatoes 3) Tamotos 4) Tometos

91. knife: _____

- 1) knives 2) knife 3) knives 4) knieves

92. box: _____

- 1) boxs 2) boxes 3) boxess 4) box's

* **Direction : Identify the correct spelling**

93. 1) patriot 2) petriot 3) paetriot 4) peatriot

94. 1) despline 2) descipline 3) descepline 4) discipline

95. 1) differince 2) difference 3) diference 1) diffarence

* **Direction : Identify the synonyms for**

96. rude = _____

- 1) well-treating 2) polite 3) mannerless 4) modest

97. cowardish = _____

- 1) bold 2) scaring 3) fearless 4) brave

* **Direction : Identify the Pronouns.**

98. 1) because 2) that 3) or 4) to

99. 1) who 2) how 3) why 4) when

100. 1) these 2) crow 3) ace 4) axe

101. If BOMBAY is written as MYMYMY, how TAMIL NADU be written in that code?

- 1) TIATIATIA 2) MNUMNUMNU 3) IATIATIAT 4) ALDALDALD

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.

102. 1) Rigveda 2) Yajurveda 3) Atharvaveda 4) Ayurveda

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. 3, 8, 22, 63, 185, (.....)

- 1) 550 2) 310 3) 295 4) 285

104. Five boys are standing in a row facing East. Deepak is to the left of Sameer, Tushar and Shailendra. Sameer, Tushar and Shailendra are to the left of Sushil. Shailendra is between Sameer and Tushar. If Tushar is fourth from the left, how far is Sameer from the right?

- 1) First 2) Second 3) Third 4) Forth

* **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. Cobbler : Leather : : Carpenter : ?

- 1) Furniture 2) Wood 3) Hammer 4) Chair

106. Which of the following can produce food on their own?

- 1) Fish 2) Birds 3) Human beings 4) Plants

107. Dolphin is

- 1) a mammal 2) an egg laying animal 3) a fish 4) an egg laying fish

108. Kidneys are located in :

- 1) the chest 2) the abdomen 3) the hands 4) the left side of body

109. Mosquitoes spread :

- 1) Cancer 2) stomach ache 3) malaria 4) blood pressure

110. We can separate sand from water by:

- 1) Filtration 2) evaporation 3) boiling 4) all of these

111. To do work, we need :

- 1) force 2) energy 3) hands 4) muscles.

112. 1 kilometre = metres

- 1) 1000 2) 10,000 3) 10 4) 100

113. E-mails are sent through

- 1) postal covers 2) telephone 3) radio 4) computer

114. The earth completes one revolution in

- 1) one hour 2) one year 3) one day 4) one month

115. Conservation of soil can be done by

- 1) contour farming 2) terrace farming 3) afforestation 4) all of these

116. Most of the metals are found.

- 1) in the wood of trees 2) on the top of mountains
3) deep inside the earth 4) dissolved in water

117. Which among the following is an chemical indicator?

- 1) Hibiscus 2) Turmeric 3) lichen 4) methyl orange

118. Which among the following is a natural indicator?

- 1) Phenolphthalein 2) Methyl orange 3) Turmeric 4) EDTA
119. In a battery cell, the energy is stored in the form of
 1) chemical energy 2) heat energy 3) light energy 4) physical energy
120. The plant 'tomato originates' from _____
 1) Africa 2) Europe 3) South America 4) none of them
121. The _____ plant is known as insectivorous plant.
 1) Tulsi 2) pitcher 3) lemon 4) cactus
122. _____ seeds used as spices.
 1) chilly 2) tomato 3) brinjal 4) potato
123. From _____, you can make chapati.
 1) rice 2) wheat 3) pulses 4) seeds
124. Lemon is _____ in taste.
 1) bitter 2) sweet 3) sour 4) salty
125. We work with our _____
 1) legs 2) eyes 3) hands 4) ears
126. _____ is not included in our taste zones.
 1) hot 2) salty 3) sweet 4) bitter
127. We get _____ when mosquito bites us.
 1) anaemia 2) T.B 3) cancer 4) malaria
128. _____ was India's first woman prime minister.
 1) Sarojini Naidu 2) Kiran Bedi 3) Indira Gandhi 4) Kalpana Chawala
129. _____ is known as Florence Nightingale of India.
 1) P.T. Usha 2) Rani Laxmibai 3) Sarojini Naidu 4) Kiran Bedi
130. _____ is known as input device.
 1) keyboard 2) monitor 3) c.p.u 4) floppy disk
131. 'To erase the image' _____ tool is used.
 1) curve 2) text 3) eraser 4) line
132. _____ is one of the features of a computer.
 1) portability 2) accuracy 3) utility 4) necessity
133. _____ is used for playing video games.
 1) barcode reader 2) joystick 3) microphone 4) scanner
134. _____ is the worldwide system of computer networks in which users at one computer get information from other.

- 1) telephone 2) computer 3) email 4) internet.
135. A very important festival of the jain is _____
 1) Diwali 2) Holi 3) Eid 4) Mahavir Jayanti
136. _____ is called the festival of colours...
 1) Holi 2) Diwali 3) Christmas 4) Raksha Bandhan
137. How many planets do you find. in the solar system ?
 1) 8 2) 9 3) 10 4) 11
138. Who has been appointed as new foreign secretary?
 1) Alik Kumar Sinha 2) Sunil Kumar Pal
 3) Sajeev Babu Kurup 4) Vijay Keshav Gohale
139. Which country is the world's largest producer of milk?
 1) US 2) China 3) Pakistan 4) India
140. India's 1st national sports university to be made in
 1) Pune 2) Manipur 3) Kolkata 4) Orissa
141. Name the force by which earth pulls everything towards itself?
 1) Gravitational force 2) Specific gravity 3) Density 4) Horse power
142. Who is the first Indian women to complete the space mission?
 1) Sunita Willams 2) Kalpana Chawala 3) Bechendri Pal 4) Sania Mirza
143. Boat is a means of?
 1) Water transport 2) Rail transport 3) Land transport 4) Air transport
144. Which of the following means of transport is more expensive?
 1) Air conditional bus 2) Aereoplane 3) Super fast train 4) car
145. Who established Mughal empire in India?
 1) Akbar 2) Babar 3) Shahajan 4) Aurangazeb
146. The terms 'Beamer' is associated with -
 1) Cricket 2) Hockey 3) Chess 4) Football
147. Which was the first country to host the Asian Games?
 1) China 2) Japan 3) India 4) Korea
148. Which out of the following is a 'State party'
 1) BSP 2) Rashtriya Janta Dal 3) BJP 4) NCP
149. Which party has been in poer for 30 years now?
 1) BJP 2) CPI 3) CPI (M) 4) NCP
150. Where is the headquarters of Botanical survey of India located?
 1) Kolkata 2) Lucknow 3) Ootacmund 4) Darjeeling