

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



**ENTRANCE EXAMINATION - VII**  
**DEFENCE CAREER ACADEMY,**

**CHH. SAMBHAJINAGAR**

**As an ISO 9001 : 2008 - Certified**

**SET  
A**

**ENT : 2024-25**

**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. 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 100 items (Questions). Each item comprises four responses (Answers). 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.

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

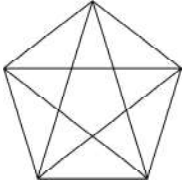


8. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR QUESTION ETC. IF SO, GET IT REPLACED BY A NEW ONE.
9. Ask for a separate paper for rough work.
10. Read the questions carefully, Remember, answers 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 100 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**

1. 1 km = ? mm  
a) 1,00,000                      b) 1,000                      c) 10,00,000                      d) 1000
2. 49 to the nearest tens is  
a) 50                      b) 40                      c) 45                      d) 55
3. In Roman numerals L stands for  
a) 100                      b) 50                      c) 70                      d) 90.
4. The difference between the greatest number of 4-digit and the smallest number of 5-digit is  
a) 1                      b) 10                      c) 100                      d) 11
5. Sangeeta types 25 pages per day. How many pages will she type in the month of November ?  
a) 900                      b) 800                      c) 700                      d) 750
6. How many lines can pass through one given point?  
a) 1                      b) 2                      c) 4                      d) Countless
7. Which of the following statements is false?  
a) Two diameters of a circle will necessarily intersect. b) The centre of a circle is always in its interior.  
c) Every diameter of a circle is also a chord.                      d) Every chord of a circle is also a diameter.
8. How many pairs of adjacent angles are there in a quadrilateral?  
a) 1                      b) 2                      c) 3                      d) 4
9. How many pairs of opposite angles are there in a quadrilateral?  
a) 1                      b) 2                      c) 3                      d) 4
10. How many diagonals are there in the following figure?  
  
a) 4  
b) 5  
c) 2  
d) 3
11. Two tens and 2-tenths =  
a) 20.2                      b) 2.02                      c) 202                      d) None of these
12. 10mm =  
a) 1.0 cm                      b) 0.1cm                      c) 0.01 cm                      d) 0.001 cm
13. Between which two whole numbers on the number line does the number 0.5 lie?  
a) 0 and 1                      b) 1 and 2                      c) 2 and 3                      d) - 1 and 0
14.  $2/10 + 3/100 + 4/1000 =$   
a) 0.234                      b) 2.34                      c) 23.4                      d) 234
15. 1 kg 500 g =  
a) 1.5 kg                      b) 1.05 kg                      c) 1.005 kg                      d) 1.0005 kg
16. Which of the following can be drawn on a piece of paper?  
a) A line                      b) A line segment                      c) A ray                      d) A plane
17. At 7 a.m. the angle between the Sun's ray and the ground at a point is  $43^\circ$ . What would be the angle at 10 a.m.?  
a)  $40^\circ$                       b)  $90^\circ$                       c) Between  $43^\circ$  and  $90^\circ$                       d) Greater than  $90^\circ$
18. Identify the uses of a ruler.  
a) To draw a line segment of a given length                      b) To draw a copy of a given segment  
c) To draw a diameter of a circle                      d) All the above

19. X and Y are two distinct points in a plane. How many lines can be drawn passing through both X and Y?  
a) 0                                      b) 1                                      c) Only 2                                      d) Infinitely many
20. Lines a, b, p, q, m, n and x have a point P common to all of them. What is the name of P?  
a) Point of concurrence      b) Point of intersection      c) Common point      d) Distinct point
21. Perimeter of an equilateral triangle  
a)  $2 \times$  Length of a side      b)  $3 \times$  Length of a side      c)  $4 \times$  Length of a side      d)  $6 \times$  Length of a side
22. Apala went to a park 20 m long and 10 m wide. She took one complete round of it. The distance covered by her is  
a) 30 m                                      b) 60 m                                      c) 20 m                                      d) 10 m
23. Two sides of a triangle are 5 cm and 4 cm. The perimeter of the triangle is 12 cm. The third side has length  
a) 1 cm                                      b) 2 cm                                      c) 3 cm                                      d) 6 cm
24. The area of a rectangular sheet of paper is  $20 \text{ cm}^2$ . Its length is 5 cm. Find its width.  
a) 1 cm                                      b) 2 cm                                      c) 3 cm                                      d) 4 cm
25. The perimeter of a regular hexagon is 12 m. Find the length of the side.  
a) 2m                                      b) 3m                                      c) 4m                                      d) 6m
26. There are 30 boys and 20 girls in a class. The ratio of the number of girls to the number of boys is  
a) 2:3                                      b) 3:2                                      c) 2:5                                      d) 3:5
27. The ratio 40 cm to 1 m is  
a) 2:5                                      b) 3:5                                      c) 4:5                                      d) 5:2
28. Which of the following ratios is equivalent to 2:3?  
a) 4:8                                      b) 4:9                                      c) 6:9                                      d) 6:12.
29. The ratio of 25 minutes to 1 hour is  
a) 7:5                                      b) 5:12                                      c) 12:5                                      d) 5:7
30. The present age of Hari Kishan is 60 years. The present age of Manish is 30 years. The ratio of the age of Manish to the age of Hari Kishan 10 years ago was  
a) 2:5                                      b) 5:2                                      c) 2:3                                      d) 3:2
31. The preceding number of the number 1 is  
a) 1                                      b) -1                                      c) 2                                      d) 0
32. Which of the following is true?  
a)  $0 < -8$                                       b)  $0 > -8$                                       c)  $4 < -4$                                       d)  $0 > 6$
33. Which of the following statements is true?  
a) Every positive integer is larger than every negative integer.  
b) Zero is greater than every positive integer.  
c) Zero is smaller than every negative integer.  
d) Farther a number from zero to the right, smaller is its value.
34. Which of the following statements, is false?  
a) Zero is neither a negative integer nor a positive integer.  
b) Zero is less than every positive integer.  
c) Zero is larger than every negative integer.  
d) Farther a number from zero on the left, larger is its value.
35.  $2 - (-1) - 2 - (-3) =$   
a) 0                                      b) 3                                      c) 2                                      d) 4
36. The difference between the predecessor of a number and the number itself is  
a) 1                                      b) -1                                      c) 2                                      d) -2

37. To find the successor of a number, we have to add the number itself.  
 a) 4                                      b) 3                                      c) 2                                      d) 1
38. Which of the following statement is true?  
 a) 1 is the smallest natural number                                      b) 50 is the predecessor of 49  
 c) 1 is the smallest whole number                                      d) 599 is the successor of 600
39. How many natural numbers are there between 1 and 10?  
 a) 6                                      b) 7                                      c) 8                                      d) 9
40. The side of a square is 1 cm. Its perimeter is  
 a) 3cm                                      b) 2cm                                      c) 4cm                                      d) 6cm
41.  $1 \div 0 =$   
 a) 1                                      b) 0                                      c) 2                                      d) Not defined
42. The radius of a circle is  $r$ . Its diameter is  
 a)  $2r$                                       b)  $4r$                                       c)  $3r$                                       d)  $6r$
43. The expression for '1 subtracted from  $-p$ ' is  
 a)  $-p-1$                                       b)  $p-1$                                       c)  $1-p$                                       d)  $1+p$
44. The expression for added' is '2 times  $x$  to which 1 is  
 a)  $2x+1$                                       b)  $x+2$                                       c)  $1-2x$                                       d)  $2x-1$
45. If Meenu's present age is  $x$  years, what was her age in years, 10 years back?  
 a)  $x-10$                                       b)  $10-x$                                       c)  $-x-10$                                       d)  $10x$

\* **Read the passage about being careful in selecting our company and answer the questions that follow.**

What causes the monsoon? The monsoon, which is essentially the seasonal reversal in wind direction, causes most of the rainfall received in India and some other parts of the world. The primary cause of monsoons is the difference between annual temperature trends over land and sea. The apparent position of the Sun with reference to the Earth oscillates from the Tropic of Cancer to the Tropic of Capricorn. Thus the low pressure region created by solar heating also changes latitude. The northeast and southeast trade winds converge in this low pressure zone, which is also known as the Intertropical Convergence Zone or ITCZ. This low pressure region sees continuous rise of moist wind from the sea surface to the upper layers of the atmosphere, where the cooling means the air can no longer hold so much moisture resulting in precipitation. The rainy seasons of East Asia, sub-Saharan Africa, Australia and the southern part of North America coincide with the shift of ITCZ towards these regions.

46. Now answer the following questions by choosing correct options:  
 a) A type of sea wave                                      b) a seasonal reversal in wind direction  
 c) very hot wind                                      d) veiy cold wind
47. What is the full form of ITCZ?  
 a) Intertrance Convergence Zone                                      b) Intertropical Convergence Zone  
 c) Intertropical Capricorn Zone                                      d) Intertropical Conveyance Zone
48. The major cause of monsoon is the  
 a) difference between annual temperature trends over land and sea  
 b) difference between day and night temperature  
 c) moisture in the atmosphere  
 d) None of these
49. Low pressure region is created by  
 a) solar heating                                      b) lunar cooling                                      c) moist wind                                      d) dry wind

\* **Read the poem carefully and answer the following questions.**

An oak tree and a rosebush grew,  
Young and green together,  
Talking the talk of growing things.....  
Wind and water and weather.  
And while the rosebush sweetly bloomed  
The oak tree grew so high  
That now it spoke of newer things—  
Eagles, mountain peaks and sky.  
“I guess you think you’re pretty great!”  
The rose was heard to cry,  
Screaming as loud as it possibly could  
To the treetop in the sky.  
“And that you’ve grown so tall.  
Now that you’ve grown so tall.”  
“It’s not so much that I’ve grown” said the tree.  
“It’s just that you’ve stayed so small.”

50. How did the oak and the rosebush grow?  
a) young and green together                      b) became yellow and dry  
c) did not grow tall                                  d) died
51. What did they talk about?  
a) wind                      b) water                      c) weather                      d) all of them

\* **Do as directed.**

52. I bought a beautiful dress at the mall.  
a) preposition                      b) adjective                      c) noun
53. What did she ask you to do?  
a) conjunction                      b) preposition                      c) pronoun

\* **Choose the correct option given below each question.**

54. What is the feminine of duke?  
a) Vicereine                      b) Duchess                      c) Princess                      d) Marchioness
55. What is the feminine of ram?  
a) Ewe                      b) Limb                      c) Lob                      d) Lumber

\* **Fill in the blanks with the plural form of a word given in the bracket:**

56. The men were carrying \_\_\_\_\_ and clubs. (knife)  
a) knife                      b) knifess                      c) knives                      d) knifes
57. From Jalalabad downwards the river is navigable by \_\_\_\_\_. (boat)  
a) boates                      b) boats                      c) boot                      d) boated

\* **Do as directed.**

58. Find the correctly spelt word  
a) Servent                      b) Sarvent                      c) Servant                      d) Sarvant
59. Spot the correct spelling  
a) Comittee                      b) Commitee                      c) Committee                      d) Committey

\* **Do as directed.**

60. Find the synonym of the following word : **Vigorously**

- a) apathetic                      b) steady                      c) energetic                      d) dull

61. What is the synonym of : **worried**

- a) anxious                      b) carefree                      c) calm                      d) unconcerned

\* **Choose the correct option given below each question.**

62. Which word comes first in ABC order?

- a) bat                      b) ball                      c) baseball                      d) basketball

63. Which of the following words are in alphabetical order?

- a) can, cast, cap                      b) dog, dinner, dusty                      c) people, rusty, sour                      d) tank, tape, taste

64.. Which word comes last in ABC order?

- a) bat                      b) ball                      c) baseball                      d) basketball

65. Arrange these words in alphabetical order and tick the one that comes last

1. Abandon 2. Actuate 3. Accumulate 4. Acquit 5. Achieve

- a) Actuate                      b) Accumulate                      c) Acquit                      d) Achieve

66. 2, 6, 14, 26, \_\_, 62

- a) 52                      b) 54                      c) 44                      d) 42

67. 1, 8, 27, 64 ?

- a) 125                      b) 100                      c) 216                      d) 343

68. Find the odd word from the given alternatives

- a) Second                      b) Metre                      c) Work                      d) Kilogram

69. Find the odd one out

- a)                       b)                       c)                       d) 

70. A is to the South-East of C, B is to the East of C and North-East of A. If D is to the North of A and North-West of B, in which direction of C is D located?

- a) North-West                      b) South-West                      c) North-East                      d) South-East

71. Plant eating animal is termed as

- a) herbivores                      b) carnivores                      c) omnivores                      d) all of these

72. Which of the following is an omnivore?

- a) Human beings                      b) Lion                      c) Cow                      d) Buffalo

73. Deficiency of iodine leads to

- a) goitre                      b) rickets                      c) balanced diet                      d) scurvy

74. Starch can be tested by using

- a) iodine solution                      b) caustic soda                      c) copper sulphate                      d) Fehling's solution

75. Jute fibres are obtained from

- a) The stem of jute plants                      b) seeds of jute plants                      c) fruit of jute plants                      d ) none of these

76. Which of the following is a natural fibre?

- a) Silk                      b) Nylon                      c) Rayon                      d) All of these

77. Choose the opaque object from the following

- a) charcoal                      b) air                      c) glass                      d) water

78. Mixtures need to be separated because

- a) to remove undesirable substances                      b) to get desirable substances  
c) to obtain highly pure substances                      d) all of the above

79. The process of conversion of water into vapour is called  
a) condensation      b) evaporation      c) sedimentation      d) decantation
80. Which of these is a physical change?  
a) Burning of paper      b) Melting of ice  
c) Formation of rust on iron nail      d) Formation of curd from milk
81. ISRO launched the PSLV C54 rocket from where  
a) Nagpur      b) Delhi      c) Sriharikota      d) Jodhpur
82. 2022 World Toilet day is celebrated on which date  
a) November 11      b) November 22      c) November 10      d) November 19
83. 5<sup>th</sup> edition of the Khelo India youth games (from 31<sup>st</sup> January to 11<sup>th</sup> February 2023) will be held in which Indian State  
a) Maharashtra      b) Madhya Pradesh      c) Uttar Pradesh      d) Karnataka
84. Anju Bobby George is associated with which sport  
a) Athletics      b) Cricket      c) Boxing      d) Kabaddi
85. Who won the India's first Olympic Bronze medal in Boxing  
a) Vijender Singh      b) Akhil Kumar      c) Dingko Singh      d) Mary Kom
86. Who was the first Speaker of Lok Sabha  
a) G.V. Mavlankar      b) Venkaiyah Naidu      c) Meira Kumar      d) Pratibha Patil
87. First Auditor General of India was  
a) V. Narhari Rao      b) Phu Dorjee      c) R.K. Shanmukham Chetty      d) Mihir Sen
88. Which city is famous as the centre for world's beauty contests  
a) Paris      b) Milan      c) Miami      d) Chicago
89. \_\_\_\_\_ is the famous city of England for its quality education  
a) Oxford      b) London      c) Birmingham      d) Wimbledon
90. It is in Washington. It houses many government offices of the War department of the USA  
a) Pentagon      b) Twin Towers      c) Empire State Building      d) White House
91. On which planet the life exists?  
a) Earth      b) Moon      c) Jupiter      d) None
92. Which is the nearest star to the earth?  
a) Mercury      b) Moon      c) Venus      d) Sun
93. Which among the following is the slowest means of transport?  
a) cycle      b) bullock cart      c) scooter      d) rickshaw
94. Bus is a means of \_\_\_\_\_ transport.  
a) water      b) land      c) air      d) none
95. Which is the cheapest modes of transport?  
a) airways      b) waterways      c) roadways      d) railways
96. Which mode of transport is most suitable to reach an island?  
a) ship      b) train      c) car      d) bus
97. We can communicate with a large number of people through \_\_\_\_\_.  
a) newspaper      b) radio      c) Television      d) All of above
98. The point where entire weight of an object acts, is called \_\_\_\_\_.  
a) centre of gravity      b) edge      c) central point      d) can anywhere in body
99. In the Mughal administration, military recruitment had been looked after by the  
a) Kotwal      b) Bakhshi      c) Wazir      d) Diwan
100. Babur came to India originally from  
a) Khina      b) Ferghana      c) Khorasan      d) Seistan