

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



ENTRANCE EXAMINATION - XI
DEFENCE CAREER ACADEMY,
AURANGABAD.

As an ISO 9001 : 2008 - Certified

ENT : 2016

TIME : 2.00 Hrs.

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. 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 invetview on the same day.
6. This Test Booklet contains 90 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.
8. 1 to 90 questions carry 1 marks, Q. No. 91 carries 10 marks and its is compulsory question.

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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 90 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



Q. 1 to 5 : Read the following passage carefully and answer the questions given at the end of it by choosing correct alternative answer.

Pablo Picasso showed his truly exceptional talent at a very young age. His first tool was the lapis (spanish for pencil) and he learnt to draw before he could talk. He was the only son in the family and was very good looking, so he was thoroughly spoiled. He hated school and often refused to go unless his doting parents allowed him to take one of his father's pet pigeons with him.

Apart from pigeons, his great love was art. When in 1891 his father, who was an amateur artist, got a job as a drawing teacher at a college, Pablo went with him to the college. He often watched his father paint and sometimes was allowed to help. One evening his father was painting a picture of their pigeons when he had to leave the room. He returned to find that Pablo had completed the picture, and it was so amazingly beautiful and lifelike that he gave his son his own palette and brushes and never painted again. Pablo was just 13 then.

1. As a boy Pablo Picasso was
(a) ordinary looking but talented (b) handsome and talented
(c) beautiful and talented (d) handsome and hardworking
2. He was spoiled mostly because he was
(a) a smart boy.
(b) loved by one and all
(c) the only son in the family
(d) always surrounded by notorious boys.
3. Picasso went to school only when
(a) his friends accompanied him (b) his father went with him
(c) he was allowed to paint at school (d) he was allowed to carry a pet with him.
4. When his father painted in the college, Pablo.
(a) occasionally helped him. (b) rarely helped him.
(c) always helped him (d) invariably helped him
5. Pablo's father gave up painting because he
(a) did not like the job (b) retired from the college.
(c) was impressed by his son's talent (d) lost interest in painting

Directions : In this section, you find a number of sentences, parts of which are printed in bold. You may also find only a group of words which is printed in bold. For each bold part, four words/phrases are listed below. Choose the word/phrase **nearest in meaning** to the bold part and blacken the corresponding space on the Answer Sheet.

6. Lethargy
(a) serenity (b) listlessness (c) impassivity (d) laxity
7. Prognosis
(a) scheme (b) forecast (c) preface (d) identification

8. Emaciated
 (a) very tall (b) very sleepy (c) very thin (d) very aged
9. Contract
 (a) tract (b) expand (c) give (d) abridge
10. Inedible
 (a) unfit for human consumption (b) polluted
 (c) vitiated (d) eatable

Directions : Pick out the correct Antonyms for each of the following words.

11. Anger
 (a) party (b) happiness (c) approval (d) love
12. Obey
 (a) attract (b) disobey (c) repel (d) diffuse
13. Come
 (a) play (b) fast (c) go (d) got
14. Hard
 (a) soft (b) smooth (c) delicate (d) easy
15. Wealthy
 (a) wicked (b) famous (c) ill (d) poor

Direction : In the following questions, some of the sentences have errors and some have none. Find out which part of a sentence has an error. The number of the part is your answer. If there is no error, your answer is (d) i.e. No error.

16. Many a student (a) / have passed (b) / the I.I.T. examination (c) / No error (d)
17. On the time (a) / of the opening ceremony of the theatre (b) / a large crowd had assembled (c) / No error (d)
18. Americans are accustomed to(a)/drinking coffee(b)/when a large crowd is assembled.(c)/No error (d)

Instruction : Find the word with correct spellings.

19. a) Encoureging (b) Encoaraging (c) Encouraging (d) Incouraging
20. a) Investigation (b) Envestigation (c) Invistigation (d) Investisation
21. In $\triangle DEF$, E-P-F. $EF = 15$ cm, $PF = 10$ cm. What is the ratio of $A(\triangle DEP)$ to $A(\triangle DEF)$
 a) 1 : 3 (b) 3 : 1 (c) 2 : 3 (d) 3 : 2
22. $\triangle ABC$, $AB = AC$ and in $\triangle DEF$, $DE = DF$. $\angle BAC \cong \angle EDF$. $A(\triangle ABC) = 32$ cm² and $A(\triangle DEF) = 98$ cm². What is the ratio of their corresponding heights?
 a) 16 : 49 (b) 49 : 16 (c) 4 : 7 (d) 7 : 4
23. $\triangle ABC \sim \triangle PQR$. $AB = 6$ cm, $BC = 4$ cm, $AC = 8$ cm & $PQ = 9$ cm. what is the perimeter of $\triangle PQR$?
 a) 54 cm (b) 27 cm (c) 18 cm (d) 36 cm

24. $\square MNP \square \square QSR$. $\angle M = 60^\circ$, $\angle N = 40^\circ$, What is the measure of $\angle R$?
- a) 140° b) 120° c) 60° d) 80°
25. $\square PQRS$ is a cyclic quadrilateral. If the ratio of the angles $\square PQRS$ is $2:6:5:x$ and what is value of x .
- a) 1 b) 2 c) 3 d) 4
26. Where does the circumcentre of a right angled triangle lie
- a) In the interior of the triangle b) In the exterior of the triangle
c) At the vertex of the right angle d) At the midpoint of the hypotenuse.
27. What is the point of concurrence of the bisectors of the angles of a triangle known as?
- a) Circumcentre b) Incentre c) Orthocentre d) Centroid
28. For the angle in standard position, if the initial arm rotates 220° in clockwise direction, then in which quadrant will the terminal arm be?
- a) Quadrant I b) Quadrant II c) Quadrant III d) Quadrant IV
29. For the angle in standard position, if the initial arm rotates 230° in anticlockwise direction, then in which quadrant will the terminal arm be?
- a) Quadrant I b) Quadrant II c) Quadrant III d) Quadrant IV
30. If $\cot \theta = -\frac{40}{9}$ and θ is in quadrant II, then what is the value of $\cos \theta$?
- a) $\frac{40}{41}$ b) $-\frac{40}{41}$ c) $\frac{9}{41}$ d) $-\frac{9}{41}$
31. What is the slope of a line having inclination 30° ?
- a) $\frac{1}{2}$ b) 2 c) $\sqrt{3}$ d) $\frac{1}{\sqrt{3}}$
32. What is the slope of a line having inclination 60° ?
- a) $\frac{1}{2}$ b) 2 c) $\sqrt{3}$ d) $\frac{1}{\sqrt{3}}$
33. What is the common difference of the A.P. 239, 236, 233, ?
- a) 3 b) -3 c) 4 d) -4
34. For an A.P., if $a = 2$ and $d = 2.5$, then which is the seventh term?
- a) 17 b) 15 c) 13 d) 11
35. What is the value of k , if one root of the quadratic equation $kx^2 - 7x + 12 = 0$ is 3?
- a) 1 b) -1 c) 3 d) -3
36. What is the value of k , if one of the roots of the quadratic equation $x^2 + kx + 12 = 0$ is 2?
- a) 4 b) -4 c) 8 d) -8
37. What is the value of D for the simultaneous equations $3x - 2y = 6$ and $2x + y = 11$?
- a) 1 b) -1 c) 7 d) -7
38. Two-digit numbers are formed from the digits 0, 1, 2, 3, 4 where digits are not repeated. What is $n(S)$?
- a) 20 b) 16 c) 18 d) 14

39. A die is thrown. What is the probability of getting a multiple of 4?
- a) $\frac{1}{6}$ b) $\frac{1}{3}$ c) $\frac{1}{2}$ d) $\frac{2}{3}$
40. How many three digit natural numbers are divisible by 4 ?
- a) 225 b) 230 c) 235 d) 220
41. The S.I. Unit of electric current is?
- a) Ampere b) Candela c) Mole d) Mass
42. The time taken by earth to complete one rotation about its axis is
- a) 12 hours b) 16 hours c) 24 hours d) 365 days
43. The rate of change of displacement with time is
- a) Speed b) acceleration c) Retardation d) Velocity
44. A rocket works on the
- a) First law of motion b) Second law of motion
c) Third law of motion d) Law of conservation of energy
45. Pressure is a
- a) Vector quantity b) Scalar quantity c) Normal force d) buoyant force
46. pH of water is 7 so it is.
- a) acidic b) basis c) neutral d) none of these
47. The maximum no. of electrons that can be accomodated in M shell of an atom are.
- a) 8 b) 18 c) 32 d) 25
48. The elements of group 18 are
- a) halogen b) chalcogens
c) alkaline earth metals d) noble gases
49. The most abundant metal on the earth is
- a) aluminium b) gold c) iron d) copper
50. Which of the following process is a physical change rather than a chemical change?
- a) combustion b) decomosition c) distillation d) neutralisation
51. In humans, bile juice is secreted by
- a) Pancreas b) small intestine c) esophagus d) Liver
52. Oxygen is transported in blood mainly by
- a) leucocytes b) erythrocytes c) thrombocytes d) blood plasma
53. Nephrons are connected with system.
- a) respiratory b) nervous c) excretory d) circulatory
54. The total no. of bones in the body of man is
- a) 206 b) 205 c) 216 d) 636
55. Which is the most stable ecosystem?
- a) Mountain b) Ocean c) Forest d) Desert

67. Name of group of islands lying in the Arabian Sea.
 a) Lakshadweep b) Andaman and Nicobar c) Nicobar d) Andaman
68. The largest state of India in terms of size is
 a) Maharashtra b) Madhya Pradesh c) Uttar Pradesh d) Rajasthan
69. Name the longest westward flowing river of Peninsular India.
 a) Ganga b) Yamuna c) Narmada d) All of these
70. is the only country in the world that has both tigers and lions.
 a) China b) India c) Kenya d) Indonesia
71. A large proportion of children in a population are a result of
 a) High birth rates b) High life expectancies c) High death rates d) More married couples
72. Which one of the following is a leguminous crop?
 a) Pulses b) Jawar c) Millets d) Sesamum
73. Who has won the best actor award at the 63rd National Film Awards 2016?
 a) Ranjeet Singh b) Shahid Kapoor c) Amitabh Bachchan d) Salman Khan
74. The 2017 FIFA U-17 World Cup will be hosted by which country?
 a) India b) France c) Sri Lanka d) Vietnam
75. The ITBP's weapon and support weapon training centre will be set up in which district of Madhya Pradesh?
 a) Bhopal b) Chhindwara c) Indore d) Damoh
76. How many times has India won the gold medal in men's hockey at the Asian Games?
 a) Two b) Three c) Four d) Five
77. What was the name given to the operation conducted by National Security Guard in 2008 against terrorist attack in Taj hotel, Mumbai?
 a) Operation Black Tornado b) Operation Black Thunder
 c) Operation Safed Sagar d) Operation Vijay
78. The commando unit of the Indian Air Force is named
 a) Baaz b) Garud c) MARCOS d) Ghatak
89. Who of the following was the Chief of Army at the time of Indo-Pak war of 1971?
 a) General PP Kumaramangalam b) Field Marshall SHFJ Manekshaw
 c) General JN Chaudhari d) General KS Thimayya
80. Who was the only Prime Minister of India to be awarded the Nishan-e-Pakistan, Pakistan's highest civilian honour?
 a) Atal Bihari Vajpayee b) Morarji Desai
 c) Indira Gandhi d) PV Narasimha Rao

PART - II

Question : 10

INTELLIGENCE QUESTION TEST

Mark : 10

SERIES COMPLETION

NUMBER SERIES

81. 4, 12, 36, 108, (.....)

- a) 324 b) 243 c) 348 d) 162

LETTER SERIES

82. AZ, CX, EV, ?

- a) TG b) GT c) IQ d) MP

CODING - DECODING

83. If in a certain language, MACHINE is coded as LBBIHOD, which would be coded as SLTMFNB?

- a) RKSLEMA b) TKULGMC c) RMSNEOA d) TMUNGOC

BLOOD RELATIONS

84. Sohan introduces Mohan as the son of the only brother of his father's wife. How is Mohan related to Sohan?

- a) Cousin b) Son c) Uncle d) Brother

RELATION PUZZLE

85. Pointing to Ketan, namrata said, "He is the son of my father's only son." How is Ketan's mother related to Namrata?

- a) Daughter b) Sister c) Sister-in-Law d) Aunt

86. Pointing towards a girl in the picture, Sarita said, "She is the mother of Neha whose father is my son." How is Sarita related to the girl in the picture?

- a) Mother b) Aunt c) Sister d) None of these

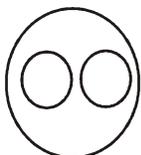
DIRECTION SENSE TEST

87. A man is performing yoga with his head down and legs up. His face is towards the west. In which direction will his left hand be?

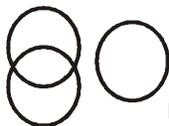
- a) North b) South c) East d) West

LOGICAL VENN DIAGRAMS

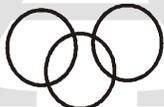
88. Which one of the following Venn diagrams correctly illustrates the relationship among the classes : Doctor, Nurse, Human being



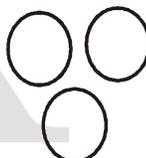
a)



b)



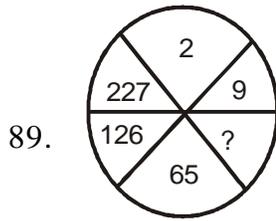
c)



d)

INSERTING THE MISSING CHARACTER

Directions : Find the missing character in each of the following questions.



- a) 26 b) 27 c) 28 d) 63

SITUATION REACTION TEST

Directions : To each of the following questions, four probable answers have been given as alternatives. Select the best alternatives as your answer.

90. You find that a person whom you call your friend has been cheating you. What would you do?
- a) Break relations with him/her.
 - b) Give him/her tit for tat.
 - c) Make him/her realise his/her mistake.
 - d) Tell other friends about him/her.

PART - III

Direction :- Write an essay on any of the following.

10 M

91. 1) If I were the Prime Minister of India
2) My favorite Game
3) Water pollution
