ENTRANCE EXAMINATION - XI

DEFENCE CAREER ACADEMY, AURANGABAD.

As an ISO 9001 : 2008 - Certified

ENT : 2015	**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 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.

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 3 : Read the following passage carefully and answer the questions given at the end of it by choosing correct alternative answer.

Henry Cavendish, the eldest son of Lord Charles Cavendish, was born at Nice in 1731. He was one of the pioneers in the study of gases. In 1766, he discovered' inflammable air', now called' hydrogen' Later he showed that water was produced when this gas was burnt. In 1785, he discovered that nitric nitrogen discovery has since become immensely important in industry, especially in the manufacture of fertilizer. He also discovered but did not recognise the name Argon. The Cavendish Physical Laboratory at Cambridge has been named after him. He was such a withdrawn and shy men that he even ordered his dinner by placing a note on ordered his dinner by placing a not on the dining table. He die died in 1810, sixty-one years after he had entered Cambridge.

1. The parents of Cavendish christened him as ....
    (a) Argon   (b) Cavendish   (c) Lord   (d) Henry

2. Cavendish is known for discovering
    (a) hydrogen and argon
    (b) hydrogen and oxygen
    (c) hydrogen and the constituents of nitric and acid.
    (d) argon and the constituent of inflammable air

3. Cavendish's way of ordering his dinner shows that he was
    (a) introvert by nature.   (b) kind to servants.
    (c) extrovert in nature   (d) amiable in temperament.

Directions : In this section, you find a number of sentence, 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.

4. Savita was asked to prove her **allegation** in the court.
    (a) credentials   (b) cases   (c) points   (d) charges

5. Lunatics generally have **queer** ideas.
    (a) strange   (b) clumsy   (c) intricate   (d) frivolous

6. Although he has become rich, he is still **frugal.**
    (a) miserly   (b) careful in spending
    (c) generous with money   (d) discourteous

7. The court questioned the **veracity** of the petition made.
    (a) right   (b) truthfulness   (c) argument   (d) basis

8. The **lassitude** was caused by overwork.
    (a) laziness   (b) bourdon   (c) nectarines   (d) sickness

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

9. In this matter, it iis difficult to persuade him, he is **RESOLUTE** about it.

   (a) unmindful   (b) careful   (c) indefinite   (d) vacillating

10. The bank **LAUNCHED** a deposit mobilisation drive in June.

    (a) terminated   (b) cancelled   (c) withheld   (d) discontinued

11. He did not shed his **HOSTILITY** throughout his life.

    (a) hospitality   (b) friendliness   (c) kindness   (d) fidelity

12. Previously per capita income used to **INCREASE** by seven rupees per year.

    (a) Dwindle   (b) Diminish   (c) Mitigate   (d) Profit

13. In the modern times, we find that most social relationships are rather **ARTIFICIAL.**

    (a) Decent   (b) Genuine   (c) Excellent   (d) Adorable

14. Social **LIBERTY** may be instrumental in the emotional growth of a person.

    (a) Constraint   (b) Slavery   (c) Compulsion   (d) Obligation

Directiion : In this section four sentence are given. Each sentence has three parts, indicated by [a, b, c. Read each sentence to find out whether there is an error. If you find an any one of the parts, a, b, c, indicate your response by blackening the letter related to that part in the Answer Sheet provided. If a sentence has no error, indicate this by blackening 'd' which strands for "No error" Errors may be in grammar, appropriate world usage or idioms.

15. India was committed to keep maintaining peace(a)and solving all outstanding problems (b) with her neighbors through dialogue.(c) No error. (d)

16. Being the second Saturday of the month (a) he got up late and spent the whole day at home (b) doing his share of the household chores. (c) No error. (d)

17. The flicker of light from the gas lamps (a) indicated that the night (b) was barely Passed. (c) No error (d)

18. As economic restructuring in Central and Eastern Europe progresses (a) an estimated 15 million people may be out of work (b) by the end of the year. (c) No error. (d)

Instruction : Find the word with correct spellings.

19. a) Percentage   b) Parcentage   d) Percenteg   d) Persantage

20. a) Gavernor   b) Governar   c) Governor   d) None of these

21. A set is

    a) a group of object

    b) a collection of objects

    c) a collection of objects with a fixed common property

    d) a well defined collection of objects.

22. Area of triangle with perpendicular sides 6 cm and 8 cm, and which includes angle of 90^0 is?

a) 36 sq cm   b) 64 sq cm   c) 24 sq cm   d) 48 sq cm

23. If $\angle (x + 8)^0$ and $\angle (2x + 10)^0$ are complementary angles then x = ?

a) 24^0 b) 22^0 c) 20^0 d) None

24. Which of the following quadrilateral have opposite sides parallel?

a) Rectangle   b) Parallelogram   c) Square   d) kite

25. Which is the longest chord of the circle ?

a) Diameter   b) Bisector   c) tangent   d) Radius

26. In quadrilateral ABCD, if $\angle A = 45^0, \angle B = 85^0, \angle B = \angle D$ then $\angle C = ?$

a) 135^0 b) 145^0 c) 125^0 d) 115^0

27. If perimeter of square is 28 cm, Then its area is ?

a) 49 sq cm   b) 64 sq cm   c) 16 sq cm   d) None of these

28. The quadratic equation whose root are -5 and -3 is

a) $x^2 - 8x + 15 = 0$ b) $x^2 + 8x - 15 = 0$ c) $x^2 + 8x + 15 = 0$ d) None of these

29. The quadratic equation whose root are 7 and -4 is

a) $x^2 + 3x - 28 = 0$ b) $x^2 - 3x - 28 = 0$ c) $x^2 - 3x + 28 = 0$ d) None of these

30. If A = {15, 30, 20, 5} and B = {3, 18, 5, 20} then A $\cap$ B is :

a) {3, 18, 30}   b) {3, 15, 18, 20, 30}   c) {5, 15, 20}   d) None of these

31. If A = {1, 2, 3 .... 10} and B = {$1^2, 2^2, 3^2$, ...10^2} then A $\cap$ B is :

a) {$1,2,3,.....10, 4^2, 5^2$, ... 10^2}   b) {1, 4, 9}

c) ϕ d) None of these

32. Find distance between origin and pt. p (6, 8) ?

a) 10   b) 8   c) 6   d) None

33. The length of a chord passing through the centre of a circle is 9 cm. What is the length of the radius of the circle?

a) 7 cm   b) 6 cm   c) 4.5 cm   d) 3 cm.

34. Circumcentre of obtuse triangle lies.

a) Outside   b) Inside the   c) on the side   d) None of these

35. The sum of of all 2-digit numbers which are odd is :

a) 2475   b) 2530   c) 4905   d) 5049

36. If 18, b, -3 are in A.P. then.

a) a = 11 b = -4   b) a = -11 b = 4   c) a = 11 b = 4   d) None of these

37. The arithmetic mean between 14 and 18 is :

a) 16   b) 15   c) 17   d) 32

38. The tenth term of A.P. 357, 363, 369, ... is:

a) 423   b) 411   c) 417   d) None of these

39. How many two digit numbers are there which are divisible by 5 :

a) 25   b) 23   c) 27   d) 18

40. The sum of all two digit numbers is:

a) 4750   b) 4895   c) 4905   d) None of these

41. The speed of light in glass is .... in water

a) greater than that   b) equal   c) less than that   d) reflect

42. The phenomenon of splitting of light into its component colours is ....

a) spectrum   b) dispersion   c) VIBGYOR   d) Reflection

43. Acceleration is the rate of change of .... with respect to time.

a) speed   b) displacement   c) distance   d) velocity

44. The divice used for producing current is called a ....

a) voltmeter   b) Ammeter   c) Galvanometer   d) Generator

45. In the SI, system, ... is the unit of force.

a) dyne   b) mass   c) kg m/s   d) Newton

46. Elements showing properties of both metals and non-metals are known as............

a) Gallium   b) Metalloid   c) Amphoteric   d) alloy

47. .... is a mixtre.

a) Carbon   b) Sugar   c) Air   d) Oxygen

48. The chemical formula of POP is ....

a) $2CaSO_32H_2O$ b) $2CaSO_4.H_2O$ c) $CaCO_3$ d) $Fe_2O_3.XH_2O$

49. The particles found in an atomic nucleus are ....

a) Protons and electrons   b) electron

c) electrons and neutrons   d) protons and neutrons

50. The organic compounds having double or triple bond in them are termed as ....

a) Saturated compound   b) Carbon compound

c) Unsaturated compound   d) Ionic compound.

51. The male reproductive part of a flower is ....

a) Gynoecium   b) Style   c) Stamen   d) Ovary

52. Functional segement of DNA are called ....

a) gene   b) chromosome   c) protein   d) RNA

53. Hydra belongs to phylum ....

a) Protozoa   b) coelenterate   c) Annelida   d) Platyhelminthes

54. .... artery takes the blood to the lungs for oxygenation.

a) Pulmonary   b) Capillery   c) Branchial   d) Vein

55. Xylem and phloem are .... tissues.

a) Simple   b) merristematic   c) conductive   d) nervous

56. Under which one of the following Acts was the Communal Electorate system introduced by the British in India for the first time?

a) Government of India Act, 1901

b) Government of India Act, 1919

c) Indian Councils Act of 1861

d) Indian Council Act of 1892

57. When was the constituent Assembly established to form a Constitution of India?

a) 10th June, 1946

b) 26th December, 1949

c) 26th November, 1949

d) 9th December, 1946

58. There is a double citizenship in?

a) India

b) England

c) U.S.A.

c) Japan

59. The Drafting Committee of the Constitution did not have as its member:

a) K.M. Munshi

b) N. Gopalaswami Ayyangar

c) Alladi Krishnaswami

d) Sardar Patel

60. Which is the most continuous, loftiest and northernmost rant of Himalaya.

a) Shiwalik

b) Aravalli

c) Himadri

d) Himachal

61. Which river flows through the south eastern part of Bagar region?

a) Satluj   b) ghaghra   c) Luni   d) Saraswati

62. In which state major part of Malwa, Plateau falls ?

a) Madhya Pradesh   b) Maharashtra   c) Goa   d) Himachal Pradesh

63. What types of soils are formed in regions receiving heavy rainfall ?

a) Black   b) Laterite   c) Desert   d) Sandy

64. What is the name of the triangular region to the Narmada river ?

a) Malawa   b) Bundelkhand   c) Deccan   d) Chota Nagapur

65. Which is the highest peak in the western ghats ?

a) Annaimudi   b) Dodabetta   c) Annamalai   d) K2

66. Which American President declared 14 points programme to end the First World War ?

c) Jorge Washington   d) Woodrow Wilson   c) Roosevelt   d) None of these

67. How many permanent mebers are there in the Security Council of UNO ?

a) 3   b) 5   c) 11   d) 15

68. Where did Krantisinha Nana Patil started parallel Govertment ?

a) Sangli   b) Satara   c) Kholapur   d) Solapur

69. Who was the foundar of Azad Hind Sena ?

a) Subashchandra Bose   b) Chandrashekhar Azad

c) Vyomeshchandra Banergi   d) Ras Bihari Bose

70. Who was the leader of Communist Republic founded in 1949 ?

a) Mao-Tse-Tung   b) San-Yat-Sen

c) Chag-K-Shek   d) None of these

71. Who is the father of Atomic energy ?

a) Neil Bhor   b) Waltan   c) Rutherfold   d) None of these

72. Which former Nepalese PM passed away on April 16th 2015?

a) Sunil Bahadur Thapa   b) Surya Bhadur Thapa

c) Baburam Bhattarai   d) Khil Raj Regmi

73. Who was the youngest PM of Czech Republic elected in at the age of 34 and thereby passed away on April 16th 2015?

a) Milos Zeman   b) Stanislav Gross   c) Dmitri Grainz   d) Sarkozy

74. Apart from Kattesh V Katti, who was awarded the Hevesy Medal award 2015?

a) Susanta Lahiri   b) Sukesh Mishra   c) Sushil Kumar   d) Sumanth Das

75. Who are honoured with Hevesy Medal award?

a) Outstanding achievements in Atomic Physics

b) Outstanding achievements in Nuclear and Radio Chemistry

c) Outstanding achievements in molecular biology

d) Outstanding achievements in English Literature

76. Which Nuclear capable Ballistic missile was successfully tested on April 16th 2015?

a) Agni-II   b) Prithivi   c) Agni-III   d) Agni-I

77. What is the range of the Agni iii missile by DRDO?

a) 3000 km   b) 4000 km   c) 4500 km   d) 5000 km

78. Who won the Sportsman of the 2015 year award at the Laureus World sports Award 2015?

a) Sachin Tendulkar   b) Pete Samparas   c) Yang Yang   d) Novak Djokovic

79. Raja Rajeshwari became the first Indian American criminal court judge in _____ city.

a) Chicago   b) New York   c) Washington DC   d) San Diego

80. Who topped the Global CEO Pay chart this year 2015?

a) Larry Ellison   b) Mark Zuckerberg   c) Satya Nadella   d) Larry Page

SERIES COMPLETION
NUMBER SERIES

81. 3, 9, 27, 81, (…..)

a) 324 b) 243 c) 210 d) 162

LETTER SERIES

82. AZ, CX, FU, ?

a) IF b) IV c) JQ d) KP

CODING - DECODING

83. If a certain language MADRAS is coded as NB ESBT, how BOMBAY coded in that language?

a) CPNCBX b) CPNCBZ c) CPOCBZ d) CQOCBZ

BLOOD RELATIONS

84. A woman introduces a man as the son of the b rother of her mother. How is the man related to the woman?

a) Nephew b) Son c) Cousin d) Uncle

RELATION PUZZLE

85. E is the son of A. D is the son of B. E is married to C. C is B's daughter. How is D related to E?

a) Brother b) Uncle c) Father-in-Law d) Brother-in-Law

86. Q's mother is sister of P and daughter of M. S is daughter of P and sister of T. How is M related to T ?

a) Grandmother b) Father

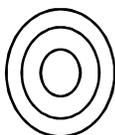c) Grandfather d) Grandfather or Grandmother

DIRECTION SENSE TEST

87. The door of Aditya's house faces the East. From the back side of his house, he walks straight 50 metres, then turns to the right and walks 50 metres again. Finally, he turns towards left and stops after walking 25 meters. Now, Aditya is in which direction from the starting point?

a) South-east b) North-east c) South-wast d) North-west
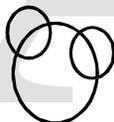
LOGICAL VENN DIAGRAMS

88. Which one of the following Venn diagrams correctly illustrates the relationship among the classes : Carrot, Food, Vegetable?
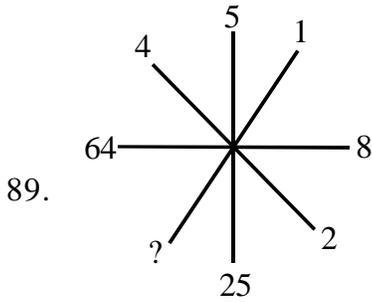
a) b) c) d)

INSERTING THE MISSING CHARACTER

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

89.

a) 1   b) 2   c) 3   d) 4

SITUATION REACTION TEST

Directions : To each of the following questions, four probable answers have been given. Select the most appropriate alternative as the answer.

90. While travelling in a train, you notice a man from the coach behind yours fall off the train. You would:

a) pull the alarm chain so that the train may stop and the man may be helped.

b) shout at the falling man asking him to get up quickly and entrain.

c) jump off the train to assist the falling man.

d) wait till the train stops at the next station and inform the railway authorities there.

PART - III Maxmium Marks - 10

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91. 1) If I were the Forest Minister of India

3) My ideal person

4) Environmental pollution