ENTRANCE EXAMINATION - XᵀH

DEFENCE CAREER ACADEMY, AURANGABAD.

As an ISO 9001 : 2008 - Certified

ENT : 2013	SR. NO.
TIME ALLOWED : 2.00 HOURS	TOTAL MARKS : 100

QUESTION - BOOKLET

GENERAL INSTRUCTIONS

*   *Read instructions given below carefully for solving this question paper.*

1. This question paper has 90 questions. Each question carries 1 mark.

2. **Last** two descriptive questions are **compulsory**. They carry 5 marks each.

3. There is a separate answer-sheet to write the answers. Each question has four options. Options are ABCD out of the four any one of the options is the correct answer. Shade the correct answer in the answer-sheet.

Example : If the correct answer for Q. NO **6**.is **B**, then record your answer as follows:

Question No. 6   ○ ● ○ ○
                               A B C D

4. Answer recorded in any other from will not be considered. Such answers will be marked 'zero'.

Example :   ⊖ ◉ ◑ ⊘
                   A B C D

5. Answer should be written using a pencil only. Blue or black ball pen or ink-pen will not be accessed.

6. Answers once marked cannot be changed or rewritten.

7. Any kind of cancellation or answers recorded marked in more than one circle will not be considered.

8. The exam has limited time, in case you are not able to solve a question, kindly solve the next question. If time permits you can try to solve the unsolved questions.

9. Essay must be written at the back portion of the Answer paper.

10. Result of this examination will be displayed on the Notice Board.

11. Do not write or mark anything on the question paper.

Q. 1 to 3 : Read the following passage carefully and answer the questions given at the end of it by choosing correct alternative answer.

PASSAGE

A French general was once conducting his army through a very difficult pass in a range of high mountains. He exhorted his soldiers to bear patiently the fatigues of the march. "It is easy for you to talk", muttered one of the soldiers near him to his companions", you are mounted on a fine horse, but we poor wretches have to tramp on foot", The general overheard the remark, and insisted on the discontented soldier taking his place, but scarcely had he mounted than a shot from the mountain-side struck and killed him.

1. The passage describes
   a) a revolt in the army
   b) an altercation with the general
   c) quarelling soldiers
   d) a fateful event

2. Which one of the following statements about the French general is correct ?
   a) He gave his horse to the soldier
   b) He shot the soldier for grumbling
   c) He gave a warming to the Soldier
   d) He did not hear the remark of the soldier

3. The French general described in the passage was
   a) cruel   b) Selfish   c) patient   d) considerate

Q.4. to 6 : Read the following poem carefully and answer the questions choosing the correct option.

> The sun descending in the west,
> The evening star does shine.
> The birds are silent in their nest,
> And I must seek for mine.
> The moon, like a flower
> In heaven's high bower,
> With silent delight,
> Sits and smiles on the nights.

William Blake

4. Where is the sun descending?
   a) West   b) East   c) South   d) North

5. How are the birds in their nest?
   a) flower   b) silent   c) shine   d) smile

Instruction : Identify the rhyming word for :

6. Shine
   a) Mine   b) none   c) Plain   d) swing

Instruction : Identify the singular noun :

7. Men
   a) Mens   b) Man   c) Mans   d) None of these

Instruction : Identify the Adjective.

8.   a) love   b) affection   c) save   c) make

9.   Which of the follwing is not an auxiliary verb ?

       a) mould   b) should   c) could   d) would

Instruction : Fill in the blanks with suitable alternative.

10.   The lady <u>had</u> only a new umbrella.

       a) adjective   b) adverb   c) verb   d) noun

11.   You look -------- my Father.

       a) same   b) as   c) like   d) to

12.   The Snake crept ------- the ground.

       a) into   b) along   c) among   d) by

13.   He ------ an Officer for the past two years.

       a) had been   b) was   c) has been   d) have been

14.   A stitch in time ------ nine.

       a) is saving   b) saved   c) had saved   d) saves

Instruction : Find the word with correct spellings.

15.   a) Displeyed   b) Displayed   c) Displayeed   d) Displeyad

16.   a) Examination   b) Exameenation   c) Ecamination   d) Xamination

17.   a) Avarage   b) Average   c) Avereje   d) Avereg

Instruction : Give the synonyms of :

18. *Archaic*

       a) Modem   b) prevailing   c) Ancient   d) contemporary

19. Aver

       a) counter   b) affirm   c) rebut   d) refute

20. Away

       a) Astonishment   b) bravery   c) equanimity   d) order

21. Azure

       a) feign   b) Assume   c) Stimulate   d) blue

Instruction : Give the Antonyms of :

22. Barren

       a) Foreign   b) Sterile   c) Empty   d) Fertile

23. clumsy

       a) graceful   b) nimble   c) elegant   d) all of these

24. lucrative
    a) bequest   b)unprofitable   c) profitable   d) productive
25. mediocre
    a) average   b) pedestrian   c) ordinary   d) superior

Instruction : Find the error in one of the part of the sentence.

26. The pirates who has hidden the treasure on the island (A)/returned back again because they thought (B)/they could now remove it with safety (C)/No error(D)

27. I asked him how far had he come (A)/in his research but he just refused (B)/to give me a straight answer (C)/No error(D)

28. It is alleged that the number of athletes (A)/taking performance-boosting drugs (B)/are on the rise (C)/ No error(D)

29. A good statesman, like any other sensible human being (A)/always learns more than his opponents (B)/ than from his fervent supporters (C)/No error(D)

30. They informed him that (A)/he will have to pay the bill (B)/when the goods arrived (C)/No error(D)

31. Give one example of finite set.
    a) ....-3, -2, -1, 0, 01,02,03 ....   b) {2,4,6}
    c) {-7, -8, -9.....}   d) {0,2,3.......}

32. m = {1,2,3,4,5}, p = {4,5,6,7} find n (m $\cup$ p)
    a) 6   b) 7   c) 5   d) 8

33. Area of a circle = ...
    a) π r   b) π r^2 c) 2 π r   d) π r^3

34. Area of triangle = ...

    a) b $\times$ h   b) both (a) & (d)   c) $\frac{1}{2} \times side \times b$ d) $\frac{1}{2} \times b \times h$

35. Trigonometric ratios of complementory angle: sin θ =
    a) cot (90 - θ)   b) sec (90 - θ)   c) cos (90 - θ)   d) tan (90 - θ)

36. If a,b,c are integers then
    a) a + b is also integers then   b) a - b is also an integer
    c) a - b is also an integer   d) All above

37. The equation of x-axis is ....
    a) x + y = 0   b) xy = 0   c) y = 0   d) x = 0

38. The equation of line passes through orgin is y = mx, then
    a) m > 0   b) m $\neq$ 0   c) m = 0   d) both (a) & (b)

39. Find the perimeter of semicircle whose radius is 21 cm.
    a) 32 cm   b) 31 cm   c) 35 cm   d) 66 cm

40. A surd of the k $\sqrt[n]{a}$, where k $\in$ Q, k $\neq$ 0. k $\neq$ 1 is called a .... surd.
    a) mixed surds   b) pure surds   c) both (a) & (b)   d) All above

41. law of surds $\sqrt[m]{\sqrt[n]{a}}$

a) $\sqrt[m+n]{a}$

b) $\sqrt[m]{a}$

c) $\left(\sqrt{a}\right)^{mh}$

d) $\sqrt[mn]{a}$

42. If $\dfrac{a}{b}=\dfrac{9}{5}$ then find out the value of : $\dfrac{a+b}{b}$ is

a) $\dfrac{9}{15}$

b) $\dfrac{5}{14}$

c) $\dfrac{14}{5}$

d) $\dfrac{15}{9}$

43. From above value find $\dfrac{5a+2b}{5a-2b}$

a) $\dfrac{11}{8}$

b) $\dfrac{7}{11}$

c) $\dfrac{8}{11}$

d) $\dfrac{11}{7}$

44. Find the geometric mean of 8, 18.

a) 13

b) 11

c) 10

d) 12

45. Find the value of sin 45^0 = ...

a) $\dfrac{1}{2}$

b) 2

c) $\sqrt{2}$

d) $\dfrac{1}{\sqrt{2}}$

46. $(2x + 50)^0 + 50^0 = 180^0$

find the value of x.

a) 100^0

b) 50^0

c) 180^0

d) 40^0

47. Write any two solution of x-y = 6

a) x = 10 & y = 4

b) x = 4 & y = 10

c) x = -6, y = -6

d) none of these

48. Forth quadrant contain

a) (+,+)

b) (-, -)

c) (+, -)

d) (-, +)

49. Find the value of a & c if b = 110^0 & a = c & a + b + c = 180^0

a) a = 40^0, b = 45^0

b) a = 35^0, b = 35^0

c) a = 60^0, b = 30^0

d) a = 60^0, b = 40^0

50. The sum of measures of the interior angles formed by a transnersal of parallel lines is ....

a) 360^0

b) 180^0

c) 90^0

d) 60^0

51. Area of square =.....

a) (side)^2

b) $\frac{1}{2}$ (diagonal)^2

c) both (a) & (b)

d) $4 \times$ side

52. Inter - relation between trigonometric ratios cot θ = ...

a) $\dfrac{1}{\sec\theta}$

b) $\dfrac{\sin\theta}{\cos\theta}$

c) $\dfrac{\cos\theta}{\sin\theta}$

d) $\dfrac{1}{\sin\theta}$

53. If the length of a side of an equilateral triangle is 6cm. Find its area.

a) $10\sqrt{3}\,cm^2$

b) $12\sqrt{3}\,cm^2$

c) $3\sqrt{3}\,cm^2$

d) $\sqrt{3}\,cm^2$

54. If A = $(x_1 y_1)$ & B = (x_2,y_2) then d (A,B) = $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ It is

a) distance formella

b) mid point formula

c) section formula for external division

d) section formula for internal division

55. How many circles can pass through the two given points?

    a) finite   b) Infinite   c) both (a) & (b)   d) none of these

56. The sum of two number is 45 & their ratio is 7:8 then find the numbers.

    a) 35, 40   b) 20, 32   c) 21,24   d) 32, 24

57. If the lines containing two segments are parallel then those segments are ....

    a) parallel   b) Inersecting   c) non-coplaner   d) All of these

58. $6x^2yz$ is an algebraic expression index = ?

    a) 2   b) 3   c) 4   d) 5

59. π .... number

    a) inleger   b) irrational   c) rational   (d) none

60. $(20)^2 - (10)^2 = ?$

    a) 330   b) 333   c) 300   d) 232

61. 1. He drew the rope out of the well.   2. The magician has drawn a crowd.

    3. Draw a picture in your book.   4. The cricket match is declared as a draw.

    Which of the following pairs is wrong?

    a) draw-pull   b) draw - attract   c) draw - make   d) draw - over

62. How many prime numbers given below form the prime nuumbers again after interchanging places of their digits ?

    13, 17, 61, 53, 23, 31

    a) One   b) four   c) Three   d) Two

Direction : ABCDE   FGHIJ   KLMNO   PQRST   UVWXY

63. Which letter corresponds to the same place from the right side as that of the place of the letter F from the left side of the given alphabet sequence?

    a) R   b) S   c) U   d) T

64. Find the odd man out :

    a) Guard   b) Police   c) Soldier   d) Shopkeeper

Direction :Find the odd figure out of the given alternatives.

65.
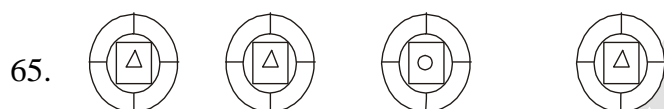
Direction : Find the odd man out from the question given below :

66. a) 49   b) 81   c) 94   d) 64

Direction : Find out the number which will occur at the place of question mark, in each series given below:

67. 33, 65, 97,129?

    a) 161   b) 160   c) 130   d) 193

**Direction : Find the missing figure in the series given below :**

68. **Question figure :**

Answer figure :
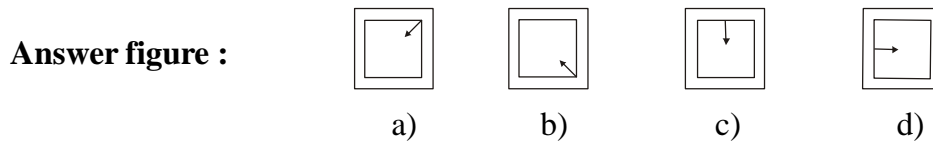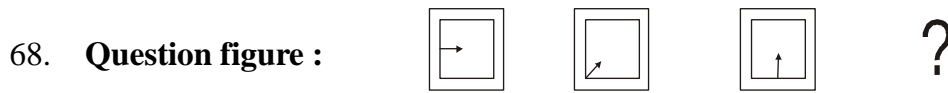
a)   b)   c)   d)

69. $\times \square + \square, + \square \times \square, \times \square + \square$

   a) $+ \square \times \square$ b) $+ \square \times \square$ c) $\square + \square \times$ d) $\square \times \square +$

**Direction : Identify the wrong term in the given series:**

70. 64, 60, 57, 52, 48

   a) 60   b) 52   c) 48   d) 57

71. Prabhakar is older than Suresh. Sudhir is younger than Prabhakar. Suresh is older than Sudhir. Who is the y oungest of them?

   a) Suresh   b) Sudhir

   c) Prabhakar   d) Both Suresh and Prabhakar

72. Observe the given figure and answer the question : How many quadrilaterals are there in the given figure?

   a) 6   b) 8   c) 10   d) 9

73. **Question figure :**

Answer figure :

a)   b)   c)   d)
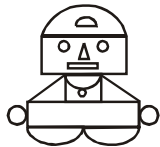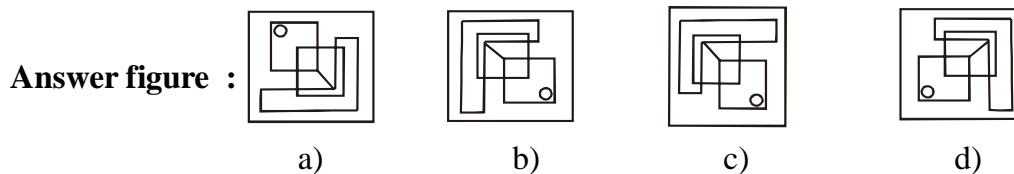
Direction : Find the mirror image of the question figures below :

74. **Question figure :**

Answer figure :

a)   b)   c)   d)
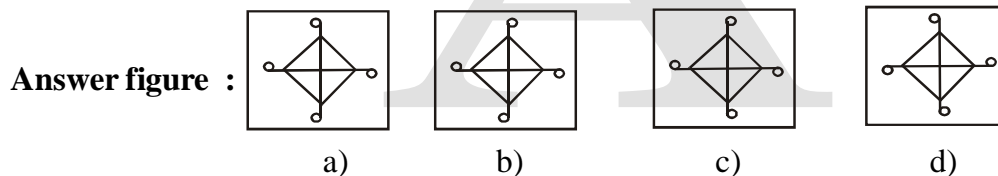
Direction : Find the word in the place of question mark?
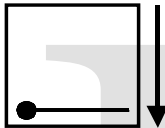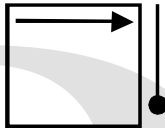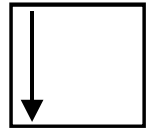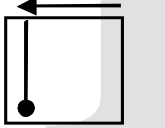
75. sky : aeroplane :: sea : ?

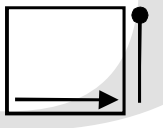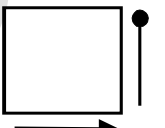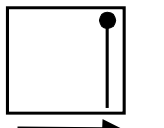   a) compass   b) ship   c) fisherman   d) fish

76. vegetable : kilogram : : milk : ?

    a) measure   b) litre   c) dairy   d) cow

Direction : In the following questions, the 1st two figures bear some relationship to each other. The third and fourth figures bear the same relationship. One of the terms is missing. Find the missing term from amongst the four alternatatives.
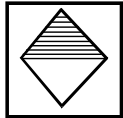
77. **Question figure :**

    Answer figure :

             a)   b)   c)   d)

78. 7667 : 6758 : : ? : 3223

    a) 4324   b) 4113   c) 4124   d) 4132

Direction : Out of the given group of figures find out an exact similar figure to the given question figure:

79. **Question figure :**

    Answer figure :

             a)   b)   c)   d)

Direction : In each question below, there is a problem. It can be seen from these problems, how do you think and react? There are four alternatives given below the question. Find out the correct or proper alternative.

80 Ragini is sitting to the left of Suhas. Suhas is sitting to the left of Viraj. Vijay and Sumit are sitting to the right of Viraj. Find who is sitting to the extreme left.

   a) Ragini   b) Suhas   c) Vijay   d) Viraj

Direction : In this type of question, ages of two or more persons are compared in terms of multiples or differences one has to find out one of the person's age.

81. The average age of 10 students in a class of 50 students is 12 years. The average age of 20 students is 12.5 years and the average age of remaining students is 14 years. What will be the average age of all the students in the class?

    a) 13 years   b) 13.5 years   c) 13.75 years   d) 7.68 years

82. If 5th May, 2006 would be on a Friday, then on what day in the year 2009 would it be Gandhi's birth anniversary?

a) Friday   b) Saturday   c) Thursday   d) Tuesday

83. How many squares are there in the figure ?
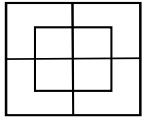
a) 6   b) 8   c) 10   d) 12

Direction : (Queston No. 84-85) 8 Persons A, B, C, D, E, F, G, H are sitting around a table, facing each other, as shown in the given figure. Answer the following questions based upon this sitting arrangement:
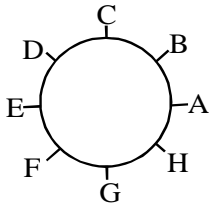
84. Who is sitting to the south-west (S-w) of D ?

a) B   b) F   c) G   d) None of these

85. In which direction is C sitting with respect to A ?

a) South -west   b) North - west   c) North - east   d) South - east

86. Which are the digits only in the triangle and the rectangle?
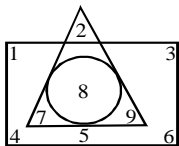
a) 5,3   b) 4,2   c) 7,5   d) 7,9

87. Shubham asked Saurabh how many cows he had. Saurabh replied that the number of legs of the people and cows in his house together is 38. The number of heads of the people and cows in his house together is 11. Then how many cows does Saurabh have?

a) 32   b) 8   c) 3   d) 9

Direction : In question below, one question figure is given to the left side. Its one part is incomplete. Choose the correct alternative from the answer figures given to the right side, so that the incomplete picture may be completed without changing its direction.

88. **Question figure :**

Answer figure :

a)   b)   c)   d)

Direction : In the question given below, the figure to the left is hidden in one of the four answer figures given to the right. Find the correct answer figure:

89. **Question figure**

Answer figure :

a)   b)   c)   d)
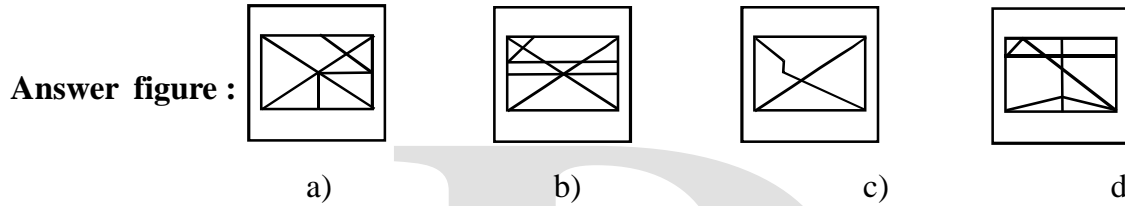
Direction : In the question figure, the dotted lines are shown along which the figure is folded and the shaded part are shown where the figure is cut. If the given question figure is unfolded, which of the answer figures will represent this unfolded figure?

90. **Question figure**

Answer figure :

a)   b)   c)   d)

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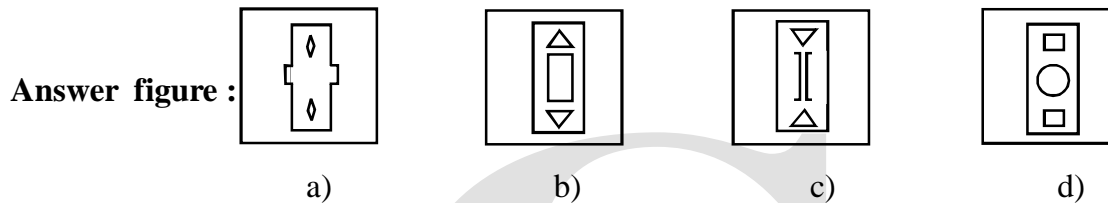
* **Descriptive question (Compulsory)**

I) **Essay writing (any one in 150 Words)**   **5M**

a) The Dowry System

b) My Hobby

c) My favourite Game

d) My Favourite Teacher

II) **Expansion of an Idea.(any one in 150 Words)**   **5M**

a) If I were the Bird.

b) If there were no Electricity.

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