TEST BOOKLET

IX   **Test Booklet Series/No.** **SS**

2372

Name of the Candidate :

Signature of the Candidate :

Time : 2 Hours   Maximum Marks : 90

GENERAL INSTRUCTIONS FOR CANDIDATE

1. You are given a Test Booklet of 14 pages as well as Answer Sheet. Count the pages of the Booklet and be sure that they are in proper order and the code number of the Test Booklet and Answer Sheet is same. In case of a defective Test Booklet, report to your Invigilator and get it replaced.
2. Answer are to be indicated in the attached Answer Sheet.
3. Use English Letters only to write on Side-2 of the Answer Sheet.
4. **Use Blue / Black Ballpoint Pen** only to write answer on the Answer Sheet. Use of **Pencil is strictly prohibited.**
5. The Booklet consists of 90 Questions in four Sections:
   (I)   Mental Ability   (Question Nos. **1-20**)
   (II)   Mathematics   (Question Nos. **21-45**)
   (III)   Science   (Question Nos. **46-70**)
   (IV)   Language   (Question Nos. **71-90**)
6. All questions are to be attempted. Each question carries **one** mark.
7. Do not use white/correction fluid on the Answer Sheet.
8. Overwriting, cutting and erasing on the Answer Sheet is not allowed. Do not make Any stray mark in the Answer Sheet.
9. No changes in the answer once written is allowed.
10. You must attempt questions of each Section because you have to qualify in each Section separately.
11. For every question, propable answers bearing, Letters A,B,C,D,E are given. Only one out of these is correct. After selecting the correct answer, you should Write the alphabet in English in the box given against each question in the Answer Sheet, For example, if answer C of Question No. 37 is correct, you please write like this:

37 **C**

12. Rough work may be done in the marked space in question booklet
13. A bell will be rung after every 30 minutes.

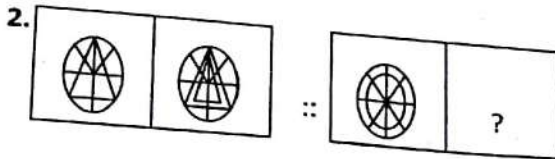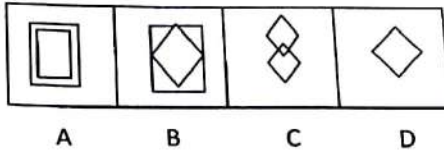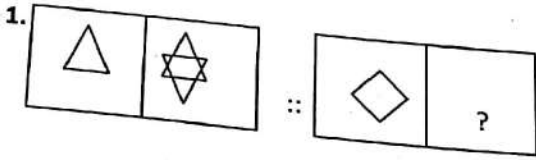# Mental ability

The second figure in the first part of problem figures bears certain relationship to the first figure. Similarly, one of the figures of answer figure bears the same relation to the first figure of the second part. You have to select a figure from the set of answer figures which would replace the question mark (?).
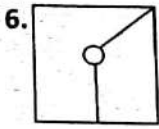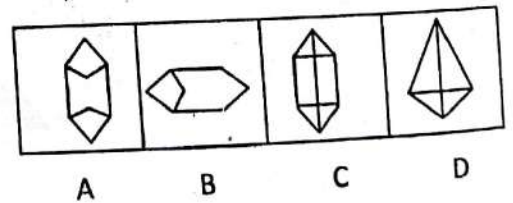
Problem figures

Answer figures

1.

2.

3.

4.

5.

1
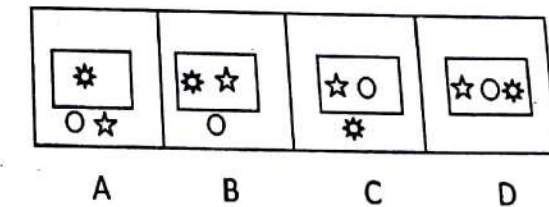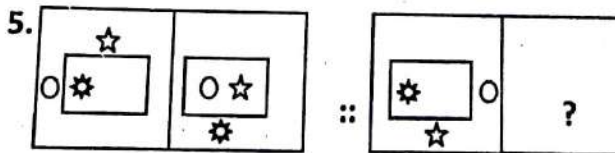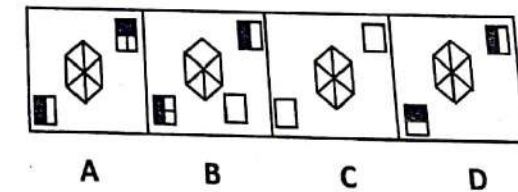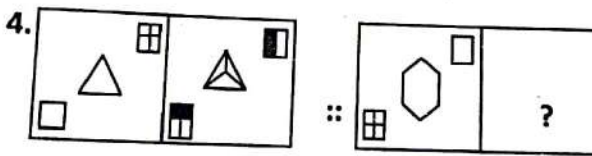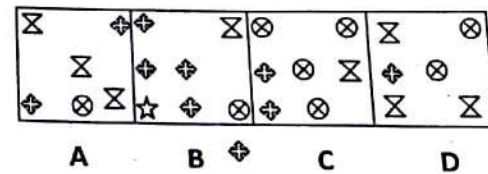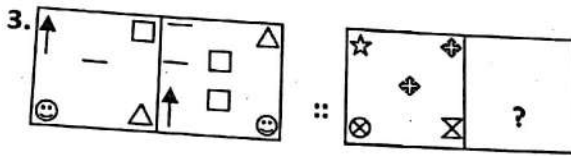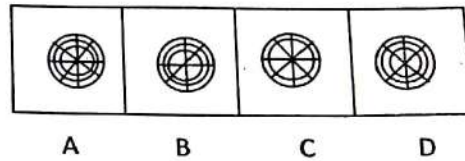
Directions (Q.No.6-10)

In *each of the following problem, Choose the alternative figure in which the problem figure is embedded.*

Problem figure   Answer figure

6.

A   B   C   D

7.

A   B   C   D

8.

A   B   C   D

9.

A   B   C   D

10.
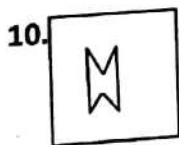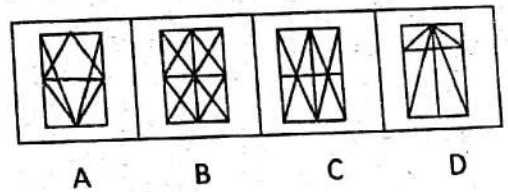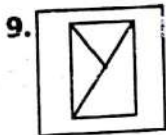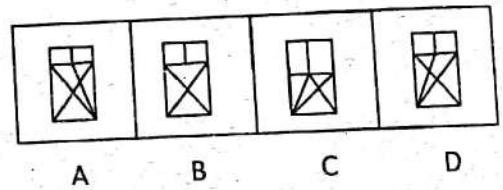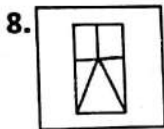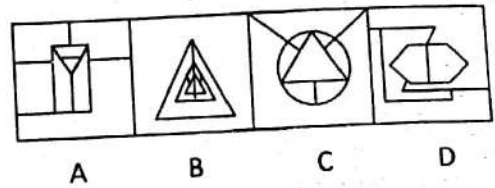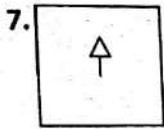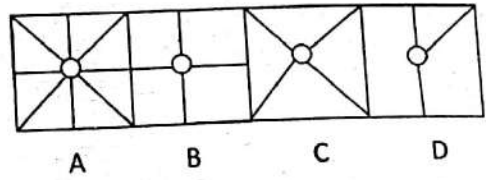
A   B   C   D

Direction:-

In questions 16 to 20 find out which of the answer figures (A), (B), (C), and (D) complete the figure.

Problem figure

Answer figures

11
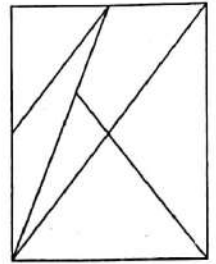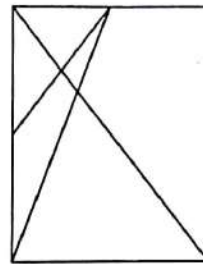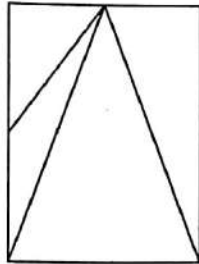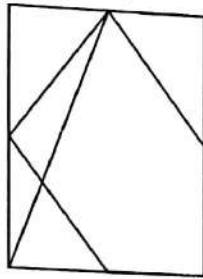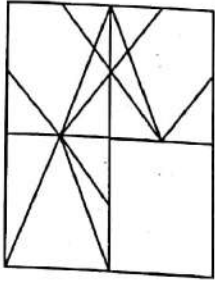
A   B   C   D

12
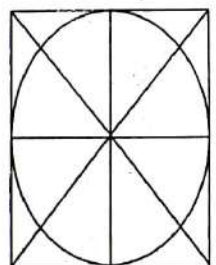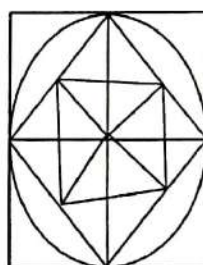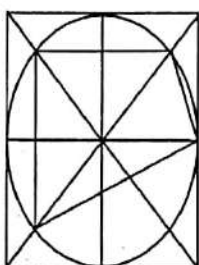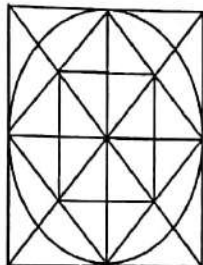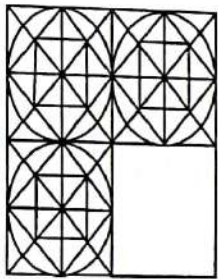
A   B   C   D

13
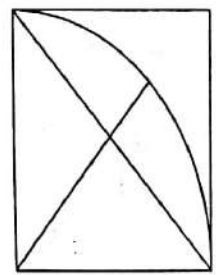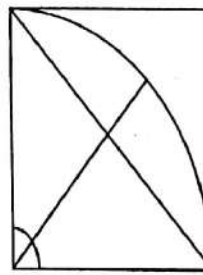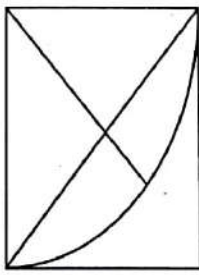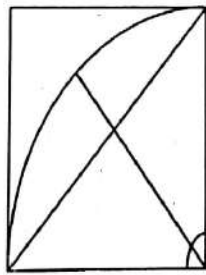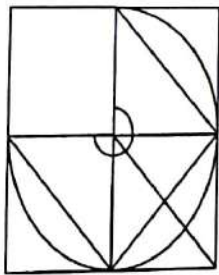
A   B   C   D

14
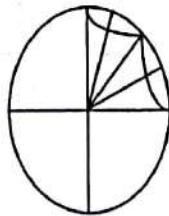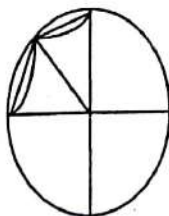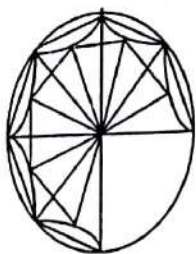
A   B   C   D

15
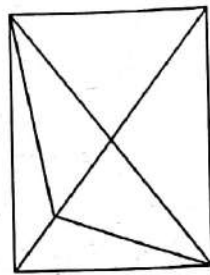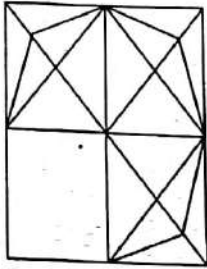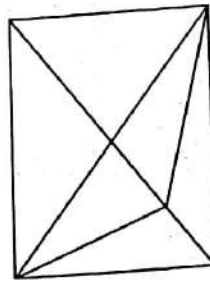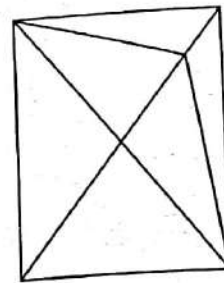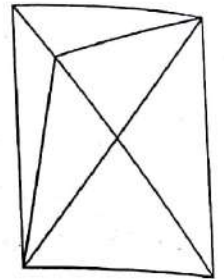
A B C D

Directions (Q.No.16-20).

In each of the following questions choose the correct mirror image of the figure given from amongst the four alternatives.

Problem figure   *Answer figure*

16.

A B C D

17.

A B C D

18.

A B C D

19.

A B C D

4

20.
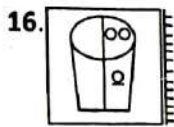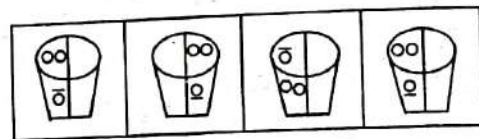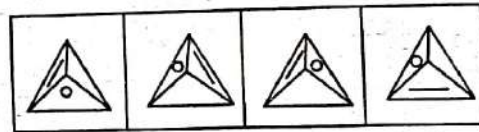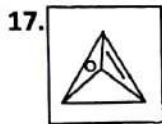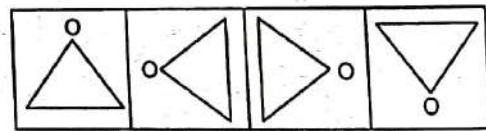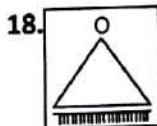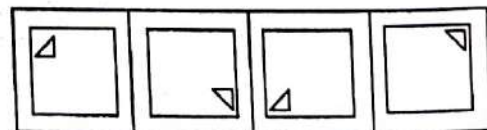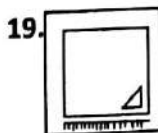
A	B	C	D
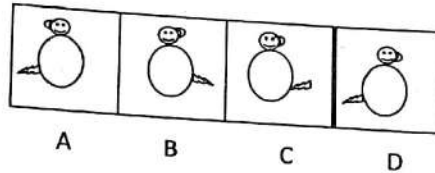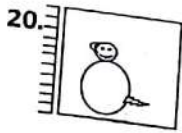
Mathematics (Section)

Direction:-

Four every question, four probable answers are given only one out of these is correct. You have to select the correct answer in the box against the number corresponding to the question in the answer sheet.

21. The additive inverse of $\frac{-a}{b}$ is:

A. $\frac{a}{b}$

B. $\frac{b}{a}$

C. $\frac{-b}{a}$

D. $\frac{-a}{b}$

22. The reciprocal of $\frac{3}{4} \div 3$ will be

A. 4

B. $\frac{1}{4}$

C. $\frac{9}{4}$

D. $\frac{4}{9}$

23. If $18-3p = 6p +9$ then p is equal to:

A. 9

B. 6

C. 1

D. 3

24. In a rhombus ABCD the diagonals intersects each other at o, if AB= 10cm, diagonal BD=16cm, then the length of the diagonal AC will be:

A. 6cm

B. 16cm

C. 8cm

D. 12cm

25. If a,b,c,d and e are five consecutive natural numbers a<b<c<d<e and a number is drawn at a random, then the probability that the number should be less than c.

A. $\frac{3}{5}$

B. $\frac{2}{5}$

C. $\frac{1}{5}$

4. $\frac{4}{5}$

26. For the data 10, 8, 11, 6, 10, 8, 6, 7, 6 which one of the following is correct?

A. mean = median = mode

B. mode<median<mean

C. mean = median >mode

D. mode >mean>median

27. What is the of $\sqrt{\frac{x+2y}{8y}}$ if x= 5.6 and y= 3.1 correct to 2 decimal places?

C. 2.83

D. 0.69

B. 2.65

A. 4.66

28. The value of $\sqrt{\frac{0.16}{0.4}}$ is:

A. 0.63

B. 0.02

C. 0.45

D. none of these

29. The value of $6mn^2 \times \frac{1}{3m}$ is:

A. 18mn

B. $2m^2$

C. $2n^2$

D. $18m^2n^2$

30. Which of the following is the number of edges of dodecahedron, if it has 12 faces and 20 vertices?

A. 32

B. 26

C. 28

D. 30

31. Five cubes each of edge of 5cm, are placed adjacent to each other. The volume of the new solid formed will be:

A. $125cm^3$

B. $375cm^3$

C. $525cm^3$

D. $625cm^3$

32. The ratio of total surface area to the lateral surface area of a cylinder whose radius is 20cm and height 60 cm ,is

A. 4:3

B. 2:1

C. 3:2

D. 5:3

33. What are the lengths of the sides of a triangle that has perimeter of 24cm?

A. 6cm,6cm,12cm

B. 7cm,7cm,10cm

C. 3cm,8cm,13cm

D. 4cm,5cm,15cm

34. The base of a triangle is 3units more than h, its height. What expression represents its area?

A. $\frac{1}{2}h(h-3)$

B. h(h-3)

C. $\frac{1}{2}h(h+3)$

D. h(h+3)

35. The standard form of 0.00000037 is:

3.7×10^{-6}

B. 3.7

C. 3.7×10^{-5}

D. 3.7×10^{-7}

36. 8 men can do piece of work in 10 days. How many long will 10 men take?

A. 8days

B. 12 days

C. 7days

D. 6days

37. The point (3,0) lie on:

A. y-axis

B. x-axis

C. both axis

D. origon

38. Which of the following statement is correct?

A. all rectangles are squares

B. all kites are rhombuses.

C. all rhombuses are parallelograms.

D. all trapeziums are squares.

39. The difference between simple interest and compound interest on certain sum of money for 2 years at 4% per annum is RS 20. Then the sum is:

A.Rs 13500

B.Rs 15200

C.Rs 11500

D.Rs 12500

40. If x:y = 5:2, then (8x + 9y) : (8x+2y)

A. 22:29

B. 26:61

C. 61:26

D. 29:22

41. If $3^{x-1} + 3^{x+1} = 90$, then x is equal to:

A. 1

B. 2

C. 3

D. 0

42. A shopkeeper prefers to sell his goods at the cost price but uses a weight of 800gm instead of 1kg weight. He earns a profit of:

A. 2%

B. 25%

C. 8%

D. 20%

43. Which sold would be formed by the given net?

A. square pyramid.

B. square pyramid

C .triangular r prism.

D. square prism.
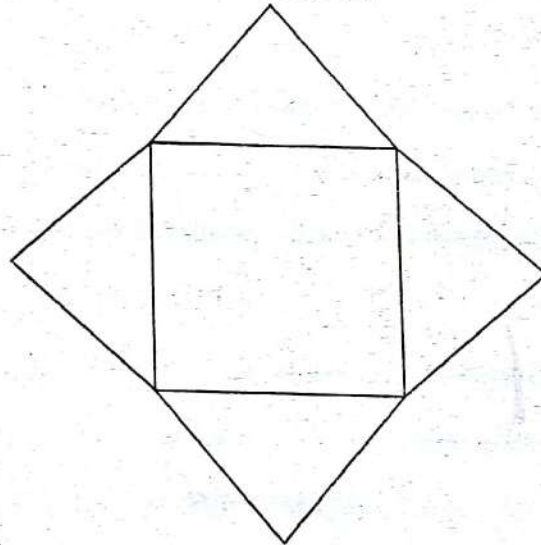
44. The sum of eterior angles of polygon of sides 7 is:

A. 360⁰

B. 180⁰

C.360⁰

D. 900⁰

45. Which of the following is perfect cube?

A. 1525

B. 1728

C. 1458

D. 3993

Section (Science)

Direction:- For every question four probable answers are given. Only one out of these is correct. You have to select the correct answer and write the answer in the box against the number corresponding to the question in the answer sheet.

46. Ditches made between the two rows of a crop are called:

A. furrow   B. canal   C. line   D. none of them

47. Microorganism which has the ability to fix nitrogen is:

A. virus   B. euglena   C. amoeba   D. rhizobium

48. Lens coatings are made of:

A. Bakelite   B. Teflon   C. oil   D. greeze

49. Which of the following is the metalloid?

A. calcium   B. aluminium   C . arsenic   D. copper

50. The product of coal which is thick black liquid having an unpleasant smell is:

A. petroleum   B. bitumen   C. lignite   D. coal tar

51. The example of suspended particulate matter is:

A. un burnt carbon   B. un burnt oxygen   C. un burnt nitrogen   D. none of these

52. All the plants found in the particular area are termed as:

A. funa   B. flora   C. trees   D. garden

53. Plant cells does not have:

A. chloroplast   B. cell wall   C. lysosome   D. vacuoles

54. Amoeba reproduces through:

A. tertiary fusion   B. budding   C. fertilization   D. binary fission

55. Young one of frog is called:

A. nymph   B.larva   C. caterpillar   D. tadpole

56. Suicidal bags of the cells are:

A. mitochondria   B. lysosomes   C. chloroplast   D. vacuoles

57. Genes are present on:

A. nucleoplasm
B. nuclear membrane
C. chromosomes
D. cytoplasm

58. Secretion of endocrine glands are called:

A. hormones
B. enzymes
C. catalyst
D. sugars

59. An example of contact force is:

A. gravitational force
B. muscular force
C. electric force
D. magnetic force

60. The force divided by an area on which it acts is called:

A. pressure
B. weight
C. thrust
D. speed

61. The use of lubricants make the surface :

A. rough
B. smooth
C. very rough
D. hard

62. The maximum force of friction when the body is just beginning to move is known as:

A. static friction
B. rolling friction
C. limiting friction
D. dynamic friction

63. Sound can not travel through:

A. air
B. water
C. steel
D. vacuum

64. the number of vibration per second of a body is called:

A. frequency
B. time period
C. amplitude
D. none of these

65. The method of purifying metals by passing electricity is called:

A. electrolysis
B. electroplating
C. electrorefinig
D. none of these

66. The object to be electroplated is made:

A. anode
B. cathode
C. cathode or anode
D.none of these

67. Electric discharge produced between the clouds or clouds and the ground is called:

A. charge
B. thunder
C. earth quake
D. lighting

68. A charge produced due to loss of electron is called:

A. neutral charge
B. negative charge
C. positive charge
D. none of these

9

69. An incident ray makes an angle of 30^0 with a plane mirror. Then the angle of reflection is:

A. 30^0

B. 60^0

C. 45^0

D. 150^0

70. The brightest planet in the sky is:

A. Venus

B. mars

C. mercury

D. Jupiter

Language (Section)

Direction:-

There are two passages in this section followed by questions, Read each passage carefully and answer the question that follow. For each question four probable options have been given only one is correct. You are required to select the correct answer and place it into given box in front of each question.

Passage-1

The retina of our eye is back part of the eye. It contains certain types of cells called photoreceptors. The photoreceptors are of two types' rod cells and cone cells. Rod cells are very sensitive to light Changes, shapes and movement. In the dim light we see with the help of rod cells. Thus rod cells are almost entirely responsible for night vision. Nocturnal animals like bats, gal ago etc. have their retina packed with rod cells. Hence they can see in the dark. There are about 120million rod cells in our eyes. The Cone Cells are not as sensitive to light as rod cells. They are most sensitive to one of the three different colours i.e.red,green or blue. Signals from the cone cells are sent to the brain which then translate these messages into perception of colour. Cone cells work only in bright light. That is why we Cannot see different colour in dark. Human eye has about 6 million cone cells in its retina.

71. The retina contains:

A. three types of cells.

B. two types of cells.

C. four types of cells

D. five types of cells

72. The number rod cells in our eyes are:

A. 6million

B. 12million

C. 120million

D. 60million

73. Which of the following cells is sensitive to colour?

A. rod cells

B. cone cells

C. both of these

D. none of these

10

74. Which of the following statement is false?

A. our retina contains photoreceptors.

B. only cone cells are photoreceptors.

C. nocturnal animals have more number of rod cells.

D. cone cells are colour sensitive.

75. We cannot see different colours in dark because:

A. rod cells do not work in dark.

B. rod cells and cone cells work only in light.

C. cone cells work only in bright light.

D. all of these.

Passage-2

Mangoes grow on trees. Mango trees are ever green trees. A mango tree can grow up to 60 feet.

Mango trees need hot, dry periods to give a good crop. In India you get best varieties in summer.

The mango tree bears fruit in four to six years after planting. The fruit can be golden yellow, green

Or deep red. The flesh of the fruit is usually deep orange yellow in colour. It is sweet and juicy

With most delicious flavor. The fruit has a single large seed inside it.

When spring comes, the mango tree bursts into flower. The pale yellow blossoms cover the branches

Of the trees. They look so pretty in early summer, tiny raw mangoes appear. They are dark green and

Very sour. AS it grows hotter, the mangoes begin to ripen. When it gets really hot the mangoes ripen

Into golden yellow juicy fruits.

76. Mango is called king of the fruits because:

A. It is beautiful and delicious.

B. It is ever green and tall.

C. It is fleshy and deep red.

D. It takes four years to grow.

77. The best mangoes are available in:

A. early summer   B. winter   · C. summer   D. spring

78. A mango tree starts bearing fruit:

A. when it has grown 60 feet.

B. in four to six years.

D. when it is hot.

c. during monsoon.

11

79. The flesh of the ripe mango fruit is:

A. pale yellow
B. green
C. deep red
D. orange yellow

80. Antonym of the word, 'ripe' is:

A. raw
B. fresh
C. golden
D. juicy

Direction:

Select the most appropriate alternative in each of the following questions and put into the box placed before each question in English numbers.

81. The old man walks slowly. Word slowly is:

A. noun
B. adjective
C. adverb
D. verb

82. Nisna is absent...................school today.

A. for
B. from
C. in
D. at

83. Use correct tense of the verb watch. She .....................T.V. since evening.

A. is watching
B. was Watching
C. has been Watching
D. none of these

84. Stay here

A. imperative sentence
B. assertive Sentence
C. exclamatory Sentence
D. interrogative sentence

85. The group of birds

A. heard
B. flock
C. bunch
D. none of these

86. That book in mine. Word 'THAT' IS

A. demonstrative Adjective
B. Relative Pronoun
C. demonstrative Pronoun
D. reflexive Pronoun

87. The plural of thief is

A. thiefs
B. theves
C. thiefes
D thieves

88. The feminine of Milkman is

A. milkwoman
B. milkwomen
C. milkmaid
D None of these

12

89. _____cow is useful animal.

A. a   B. an   C. The   D. None of these

90. The antonym of word deep is:

A. shallow   B. high   C. low   D. none of these