SUMMATIVE ASSESSMENT – I   (2017 – 2018)

OBJECTIVE MODEL

MATHEMATICS

(English Medium)

Class : VIII]   (Max. Marks : 80)   [Time : 2.45 Hrs.

INSTRUCTIONS :

1. The question paper is given as Booklet

2. All the questions are multiple choice questions.

3. Use Blue / Black ink ball point pen to answer all the questions in OMR sheet.

4. Identify the correct answer and bubble relevant circle given against the
    question number in OMR Sheet.
    Ex : If the answer is 3 to the question bubble as shown ① ② ● ④

5. The answer Paper is not valued if ✓, ✗ symbols used as answers.

6. The answer paper is not valued for over writing and more than one
    answer is bubbled.

7. Answer all the questions in the given time and hand over the OMR
    sheet to the invigilator

1. Sankar bought 5 metres of cloth for Rs. 1650. Then the cost of
   one metre cloth is   [   ]

   1) Rs. 150   2) Rs. 330

   3) Rs. 450   4) Rs. 550

2. The scores made by Rafi in 12 cricket matches are given as 36, 35, 40,
   25, 33, 18, 52, 36, 45, 60, 32, 37. Mode of the scores is   [   ]

   1) 36   2) 35

   3) 40   4) 33

3. Mubeena found that the result obtained by decreasing 10 from 8
   times of a number is equal to adding 4 to six times of the same
   number. Then the number considered by Ramu is   [   ]

   1) 7   2) 8

   3) 9   4) 5

4. Chandu bought a watch for Rs. 350 and sold it for Rs. 301. Then the
   percentage of loss is   [   ]

   1) 14%

   2) 15%

   3) 16%

   4) 17%

5. In the following figure, the area of shaded region (in sq. cm.) is   [   ]

   1) 24 cm.^{2}

   2) 42 cm.^{2}

   3) 34 cm.^{2}

   4) 20 cm.^{2}

AR - 11   2

6. The cost of a rice bag is Rs. 1800 in 2016. If the cost of it increases by 10% every year, then the cost of rice bag in 2017 is [   ]
   1) Rs. 1890
   2) Rs. 1920
   3) Rs. 1860
   4) Rs. 1980

7. $1^2 = 1$
   $11^2 = 121$
   $111^2 = 12321$
   $1111^2 = 1234321$
   Observing the above pattern, the value of 11111^2 is [   ]
   1) 1234321
   2) 123454321
   3) 1234565321
   4) 123564321

8. The marked price of an object is Rs. 176. Then the discount percentage of object if shopkeeper sells it to Ramu for Rs. 165 is [   ]
   1) $5\frac{1}{2}$%
   2) $3\frac{1}{2}$%
   3) $7\frac{1}{4}$%
   4) $6\frac{1}{4}$%

9. The cost price of a machine is Rs. 10,000. If its value decreases at the rate of 5%, then it's value after a year is [   ]
   1) Rs. 9500
   2) Rs. 9400
   3) Rs. 9700
   4) Rs. 9000

10. There are 1521 trees in the garden of Kotaiah in some rows. There are as many trees in a row as the number of rows. Then the number of trees in a row is [   ]
    1) 37
    2) 38
    3) 39
    4) 36

Observe the Histogram given below and answer the questions from **11** to **13**.

Scale :-

X - axis : 1 cm : 10 years

Y - axis : 1 cm : 2 persons
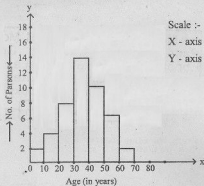
11. **Number of persons whose age is in between 20 - 30 years**   [   ]
    1) 8
    2) 10
    3) 6
    4) 12

12. **In which class interval, number of persons are highest ?**   [   ]
    1) 10 - 20
    2) 20 - 30
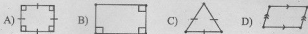   3) 30 - 40
    4) 40 - 50

13. **Number of persons whose age is above 40 years is**   [   ]
    1) 18
    2) 20
    3) 22
    4) 24

14. **Of the following trapezium is**   [   ]

    1)   2)

    3)   4)

Observe the figures and answer the questions from 15 to 17

A)   B)   C)   D)

15. Which is not related   [   ]
   1) A   2) B   3) C   4) D

16. Which figure has two lines of symmetry   [   ]
   1) A   2) B and D
   3) C and D   4) D
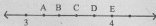
17. Of the figures given, which has more lines of symmetry   [   ]
   1) A   2) B   3) C   4) D

18. Δ ABC is an isosceles triangle and AB = AC whose base is 10 cm and
    height is 6 cm. Then the area of Δ ADC is   [   ]
   1) 10 cm.^{2} 2) 32 cm.^{2}
   3) 30 cm.^{2} 4) 15 cm.^{2}

19. Which letter represents $\frac{17}{5}$ on the number line   [   ]
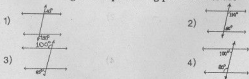   1) A   2) B
   3) C   4) D

20. Of the figures given below, congruent figures are
   1)   2)
   3)   4)

21. Which of the given English letters has not point symmetry   [   ]
   1) A   2) H   3) X   4) N

22. Of the following lines representing parallel lines are
   1)   2)
   3)   4)

23. Sum of two Rational Numbers is 8 and one of them is $\frac{-5}{6}$, then the second number is   [   ]

1) $\frac{53}{6}$

2) $\frac{-53}{6}$

3) $\frac{43}{6}$

4) $\frac{13}{6}$

24. The difference of period and periodicity of $0.\overline{39}$ is   [   ]

1) 37

2) 39

3) 41

4) 14

25. The difference of two complimentary angles is 12 then the bigger angle of them is   [   ]

1) 51^0

2) 39^0

3) 57^0

4) 43^0

26. If 0.35 is expressed in the form of $\frac{p}{q}$ the value of p + q is   [   ]

1) 27

2) 72

3) 35

4) 53

27. In the following figure, the value of x is   [   ]

1) 57^0

2) 47^0

3) 67^0

4) 37^0

28.

In the below figure, l // m and 'p' is transversal then the value of x is   [   ]

1) 12^0

2) 21^0

3) 31^0

4) 22^0

29. The product of $\frac{2}{11}$ and multiplicative inverse of $\frac{-5}{14}$ is   [   ]

1) $\frac{28}{55}$

2) $\frac{-28}{55}$

3) $\frac{55}{28}$

4) $\frac{-55}{28}$

30. If the sum of two consecutive odd numbers is 56, then one of the numbers is [ ]

1) 23
2) 25
3) 27
4) 21

31. The length of each line segment formed when Sekhar bisected a line segment of length 7.8 cm. is [ ]

1) 3.9 cm.
2) 2.9 cm.
3) 4.9 cm.
4) 5.9 cm.

32. If $(-3)^{n+1} \times (-3)^5 = (-3)^{-4}$ then the value of n is [ ]

1) 10
2) – 10
3) 11
4) – 11

33. If x = 3 and y = 2 then $8x^2 - 3y^3$ is equal to [ ]

1) 5
2) 24
3) 48
4) 3

34. The value of $\left(2^{-1} + 3^{-1}\right)^2$ [ ]

1) $\frac{24}{25}$
2) $\frac{27}{36}$
3) $\frac{23}{35}$
4) $\frac{25}{36}$

35. The square root of 2 x 3 x 5 x 3 x 2 x 5 is [ ]

1) 30
2) 25
3) 20
4) 35

36. The mean of first 5 odd numbers is [ ]

1) 5
2) 25
3) 30
4) 35

37. The least number by which 2400 is to be multiplied to become a perfect square is [ ]

1) 3
2) 4
3) 5
4) 6

38. The area of a square is 4489cm². Then the length of it's side is   [

   1) 67 cm.

   2) 57 cm.

   3) 47 cm.

   4) 37 cm.

39. The marked price of a book is Rs. 150. Then the amount to be paid when discount of 15% is allowed on it is   [

   1) Rs. 127.50

   2) Rs. 125.50

   3) Rs. 124.50

   4) Rs. 123.50

40. If $x = \left(\dfrac{3}{2}\right)^2 \times \left(\dfrac{2}{3}\right)^{-4}$ then the value of x^{-2} is   [ ]

   1) $\left(\dfrac{2}{3}\right)^8$

   2) $\left(\dfrac{3}{2}\right)^{12}$

   3) $\left(\dfrac{2}{3}\right)^{12}$

   4) $\left(\dfrac{2}{3}\right)^{-2}$

41. The interest to be paid after 3 years on the principal Rs. 2500 at 12% rate of interest is   [ ]

   1) Rs. 900

   2) Rs. 920

   3) Rs. 875

   4) Rs. 850

42. The marks obtained by a student in F.A. - I are given below. 20, 11, 21, 25, 23 and 14. Then, the average marks obtained by the student is   [ ]

   1) 19

   2) 20

   3) 21

   4) 22

The marks obtained by 30 students of a particular school in S.S.C.
Public Examinations in the year 2016 are shown in the table given below. **(43-44)**

Class Intervals (Marks)	Frequency (No. of Students)
0 - 34	3
35 - 49	7
50 - 59	9
60 - 74	6
75 - 100	5

43. From the above table, the number of students got more than
    60 marks is   [   ]

    1) 15
    2) 9
    3) 11
    4) 6

44. The difference between the number of students who got less
    than 59 marks and the number of students who got more than
    60 marks is   [   ]

    1) 4
    2) 2
    3) 3
    4) 8

45. The angle of a sector is 90° and it's radius is 28 cm., then
    the area of sector in square centimeters is   [   ]

    1) 666
    2) 616
    3) 717
    4) 720

46. In parallelogram ABCD, $\overline{AC}$ is diagonal and the area of Δ ABC is
    30 cm². Then, the area of parallelogram ABCD is   [   ]

    1) 60 cm²
    2) 20 cm²
    3) 15 cm²
    4) 45 cm²

47. The outer and inner radii of a ring are 10 cm, 8 cm respectively. Then the area of ring in cm.^{2} is   [   ]

   1) 26π

   2) 36π

   3) 24π

   4) 28π

48. In the adjacent figure, area of Δ ABC in cm.^{2} is   [   ]

   1) 140 cm.^{2}

   2) 130 cm.^{2}

   3) 120 cm.^{2}

   4) 110 cm.^{2}

49. The result obtained by adding 2 to the thrice of a number by Ramesh is equal to the result obtained by subtracting the same number from 50. Then the number is   [   ]

   1) 12

   2) 13

   3) 14

   4) 15

50. The mean of 9 scores is calculated as 45 while considering 42 instead of score 24. Then actual mean of 9 scores is   [   ]

   1) 53

   2) 63

   3) 43

   4) 33

51. If the compound ratio of 5 : 8 and 3 : 7 is 45 : x then the value of x is   [   ]

   1) 138

   2) 148

   3) 158

   4) 168

52. The lengths of parallel sides of a trapezium are 9 cm., 7 cm. respectively and the perpendicular distance between them is 6 cm. Then the area of trapezium is [ ]

1) 48 square centimetres

2) 38 square centimetres

3) 44 square centimetres

4) 54 square centimetres

Read the information given below and answer the questions from 53 to 55

A motor boat travels in down stream in between the towns A and B in 5 hours. The same motor boat travels the same distance in upstream in 6 hours. Speed of stream is 2 kmph and speed of motor boat in still water is 22 kmph.

53. The speed of motor boat in down stream is [ ]

1) 24 kmph

2) 20 kmph

3) 22 kmph

4) 18 kmph

54. The speed of motor boat in upstream is T]

1) 17 kmph

2) 19 kmph

3) 20 kmph

4) 22 kmph

55. The time taken by motor boat to reach town A from town B is [ ]

1) 5 hours

2) 6 hours

3) 4 hours

4) 3 hours

56. In which of the following number set / sets the additive inverse of 9 lies. [ ]

1) N

2) W

3) Z

4) N and W

57. For which value of n, the value of $(-2)^n$ becomes positive [ ]

1) 11

2) – 3

3) 13

4) – 2

58. Which is not correct among the given [ ]

1) $\left(x^{-3}\right)^2 = x^{-6}$

2) $x^{-2} = \sqrt{x}$

3) $\frac{x^{-3}}{x^{-2}} = \frac{1}{x}$

4) $x^{-3} \times x^{-5} = x^{-8}$

59. The appropriate value of $\frac{-8}{27}$ among the given is [ ]

A) $\left(\frac{2}{3}\right)^{-3}$

B) $-\left(\frac{-2}{3}\right)^3$

C) $\left(\frac{-2}{3}\right)^3$

D) $\left(\frac{-2}{3}\right) \times \left(\frac{-2}{3}\right) \times \left(\frac{-2}{3}\right)$

1) A

2) A and B

3) C and D

4) B

60. Which is not Pythagorean triplet [ ]

1) 3, 4, 5

2) 6, 8, 10

3) 9, 10, 11

4) 8, 15, 17

61. The square number in which 'I' does not come in unit's place is [ ]
   1) 21^2
   2) 19^2
   3) 11^2
   4) 10^2

62. Among the given, which is not a perfect square [ ]
   1) 121
   2) 144
   3) 1024
   4) 369

63. Of the following, pairs of standard angles are [ ]
   A) $(70^\circ, 20^\circ)$
   B) $(50^\circ, 40^\circ)$
   C) $(30^\circ, 45^\circ)$
   D) $(60^\circ, 90^\circ)$
   1) A and B
   2) C and D
   3) A and D
   4) B and C

64. Of the following, which is not a pair of supplementary angles [ ]
   1) $(100^\circ, 80^\circ)$
   2) $(110^\circ, 70^\circ)$
   3) $(60^\circ, 120^\circ)$
   4) $(132^\circ, 38^\circ)$

65. The ratio between the number of vowel letters and the number of consonant letters of the word "ALERT" is [ ]
   1) 2 : 3
   2) 3 : 2
   3) 1 : 4
   4) 5 : 1

AR - 11   13   (Turn Over)

66. Statement A : In a rectangle opposite sides are equal and diagonals are
equal

Statement B : In a parallelogram opposite sides are equal and diagonals
are equal

Statement C : In a rhombus all the sides are equal and diagonals are
not equal.

Which of the following is true   [   ]

1) A - true, B - true, C - true

2) A - true, B - true, C - false

3) A - true, B - false, C - true

4) A - false, B - true, C - true

67. Match the following.   [   ]

<table>
<tr><td>A</td><td>B</td></tr>
<tr><td>i) 60°, 60°, 60°</td><td>a) Isosceles right angle triangle</td></tr>
<tr><td>ii) 45°, 90°, 45°</td><td>b) Scalene triangle</td></tr>
<tr><td>iii) 50°, 60°, 70°</td><td>c) Equilateral triangle</td></tr>
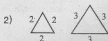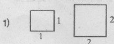</table>

1) (i) – a, (ii) – b, (iii) – c   2) (i) – b, (ii) – c, (iii) – a

3) (i) – c, (ii) – b, (iii) – a   4) (i) – c, (ii) – a, (iii) – b

68. Of the following, which are not similar figures   [   ]

69. **Of the following quadrilateral which has more number of symmetric
lines**   [   ]

1) Parallelogram   2) Square

3) Rectangle   4) Rhombus

70. For which value of x, L.H.S. and R.H.S. of the following equation are equal $5x - 12 = 2x - 6$ [   ]
    1) 2
    2) 3
    3) 4
    4) −2

71. If we decrease 7 from four times of a number, the result is equal to 21. The equation representing this is   [   ]
    1) $4x + 7 = 21$
    2) $4x − 7 = 21$
    3) $4x − 21 = 7$
    4) $4x + 21 = 7$

72. Of the following, which shows linear equation   [   ]
    1) $5x^2 + 2xy + y^2 = 15$
    2) $2x − 3y + 5$
    3) $x + y + 7 = 0$
    4) $2x^2 = 3$

73. In a Histogram, the bars?   [   ]
    1) Lengths are equal
    2) Widths are equal
    3) Areas are equal
    4) Widths, lengths are equal

74. The length of a rectangle is *l* cm., breadth is b cm. then the area of rectangle technically is   [   ]
    1) $A = \frac{1}{2} lb$
    2) $A = l + b$
    3) $A = 2 (l + b)$
    4) $A = l \times b$

75. Arun has a paper having it's thickness as 0.0015 cm. then it's standard form in cm is   [   ]
    1) 15×10^{-4}
    2) 15×10^{-3}
    3) 1.5×10^{-3}
    4) 1.5×10^{-4}

76. The expanded form of decimal number 543.67 when we use exponents is   [ ]

1) $5 \times 10^2 + 4 \times 10^1 + 3 \times 10^0 + 6 \times 10^{-1} + 7 \times 10^{-2}$

2) $5 \times 10^3 + 4 \times 10^2 + 3 \times 10^1 + 6 \times 10^{-1} + 7 \times 10^{-2}$

3) $5 \times 10^1 + 4 \times 10^2 + 3 \times 10^3 + 6 \times 10^{-1} + 7 \times 10^{-2}$

4) $5 \times 10^2 + 4 \times 10^1 + 3 \times 10^0 + 6 \times 10^{-2} + 7 \times 10^{-1}$

77. Of the following, multiplicative associative property is   [ ]

1) $\frac{5}{2} \times \left(\frac{3}{7} \times \frac{9}{5} \right) = \left(\frac{5}{2} \times \frac{3}{7} \right) \times \left(\frac{5}{2} \times \frac{9}{5} \right)$

2) $\left(\frac{5}{2} + \frac{3}{7} \right) + \frac{9}{5} = \frac{5}{2} + \left(\frac{3}{7} + \frac{9}{5} \right)$

3) $\frac{5}{2} \times \left(\frac{3}{7} \times \frac{9}{5} \right) = \left(\frac{5}{2} \times \frac{3}{7} \right) \times \frac{9}{5}$

4) $\frac{5}{2} \times \left(\frac{3}{7} - \frac{9}{5} \right) = \left(\frac{5}{2} \times \frac{3}{7} \right) - \left(\frac{5}{2} \times \frac{9}{5} \right)$

78. Of the following, which expresses 'Golden Ratio'   [ ]

1) 2.5 : 1   2) 1.615 : 1

3) 1.516 : 1   4) 1 : 2

79. The ratio of areas of ABCD square and PQRS rectangle is   [ ]

1) 2 : 3

2) 3 : 2

3) 1 : 2

4) 2 : 1

80. Ramesh and Prasad are partners in a fruit business. They shared a profit of Rs. 2400 in a month in the ratio 2 : 3. Then amount got by Prasad is   [ ]

1) Rs. 960   2) Rs. 1404

3) Rs. 1440   4) Rs. 950