

## Standard 7

## MATHS

Time: 2.00 Hours

Marks: 60

5x1=5

## I. Choose the correct answer:

- 1)  $1.0 + 0.83 = ?$ 
  - a) 0.17
  - b) 0.71
  - c) 1.83
  - d) 1.38
- 2) The interest for a principle of Rs.4,500 which given an amount of Rs.5,000 at end of certain period is
  - a) Rs.500
  - b) Rs.200
  - c) 20%
  - d) 15%
- 3) The factors of  $x^2 - 6x + 9$  are
  - a)  $(x - 3)(x - 3)$
  - b)  $(x - 3)(x + 3)$
  - c)  $(x + 3)(x + 3)$
  - d)  $(x - 6)(x + 9)$
- 4) A ..... is a flip over a line.
  - a) Translation
  - b) Rotation
  - c) Reflection
  - d) Glide Reflection
- 5) The median first 6 odd natural number is .....
  - a) 6
  - b) 7
  - c) 8
  - d) 14

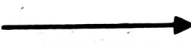
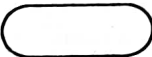
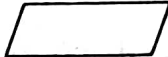
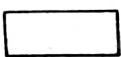

## II. Fill in the blanks:

5x1=5

- 6) A Frog jumps 5.3 cm in one jump. The distance travelled by the frog in 10 jumps is .....
- 7) 1 year 9 months .....
- 8)  $(p - q)^2 = \dots\dots\dots$
- 9) Express  $24abc^2$  as product of its factors is .....
- 10) The average of the marks 2, 9, 5, 4, 4, 8, 10 is .....

## III. Match the following:

5x1=5

- | Symbols   | Uses                             |
|---|----------------------------------|
| 11)  | - a) Input / Output              |
| 12)  | - b) $c = a + b$                 |
| 13)  | - c) start / End                 |
| 14)  | - d) $a \geq 0$                  |
| 15)  | - e) It shows direction of flow. |

## IV. Say True or False:

5x1=5

- 16)  $(a - 1)^2 = a^2 - 1$
- 17) Linear equation has almost one solution.
- 18)  $2p$  is a factor of  $8pq$ .
- 19)  $x < -y$  can be rewritten as  $-y < x$ .
- 20)  $3.26 \times 1000 = 3260.0$

**V. Answer any 10 questions:**

- 21) Simplify  $23.5 - 27.89 + 35.4 - 17$
- 22) Find the area of the rectangle whose length is 23.7 cm and breadth is 15.2 cm
- 23) There are 560 students in a school. Out of 560 students, 320 are boys. Find the percentage of girls in that school.
- 24) Find the simple interest on Rs.35,000 at 9% per annum for 2 years?
- 25) Simplify  $(a+b)^2 - 4ab$ .
- 26) Simplify the following using the identity  $(a+b)^2 = a^2 + 2ab + b^2$ .  
i)  $21^2$
- 27) If the mean of the following number is 38. Find the value of x  
48, x, 37, 38, 36, 27, 35, 34, 38, 49, 33
- 28) Find the value of  $17.4 + 25.435$  by using place value grid.
- 29) Find the median of the following golf scores 68, 79, 78, 65, 75, 70, 73
- 30) Find the product of the following  
i)  $52.3 \times 0.1$       ii)  $537.4 \times 0.3$
- 31) Factorise the following using suitable identity  
 $64x^2 - 112xy + 49y^2$
- 32) Convert the given percentage to decimal  
i) 58%      ii) 120%

**VI. Answer any 5 questions:**

5x3=15

- 33) Malini bought three ribbons of length 13.92 m, 11.5 m and 10.64m. Find the length of the ribbons?
- 34) A shopkeeper bought a chair for Rs.325 and sold it for Rs.350. Find the profit percentage?
- 35) Factorise  $9x^2 + 30xy + 25y^2$
- 36) Represent the solutions of  $3x + 9 \leq 12$  in a number line. Where x is an integer.
- 37) The cost of 28 books are Rs.1506.4. Find the cost of one book.
- 38) In what time will Rs.5,600 amount to Rs.6720 at 6% per annum?
- 39) Find the mode of the following data.  
14, 15, 12, 14, 16, 15, 17, 13, 16, 16, 15, 12, 16, 15, 13, 14, 15, 13, 15, 17, 15, 14, 18, 19, 12, 14, 15, 16, 15, 16, 13, 12

**VII. Answer any one of the following:**

1x5=5

- 40) Draw concentric circles for the following measurements of radii/diameters. Find out the width of each circular ring.  
i)  $r_1 = 3$  cm and  $r_2 = 5$  cm
- (OR)
- ii)  $r_1 = 7.1$  cm and  $d_2 = 12$  cm