**Weekly test of Maths, class: 9, FM:25, PM:10**

**Time:40mins**

1. 1+4+9+16+25….. is a series.

Answer the following

i. Name the type of the above series. (1)

ii. Write the formula of the general term of a geometric series.

(1)

iii. Find the seventh terms of the above series. (2)

iv. Express the above series by using the sigma notation. (1)

2. The marks obtained by a student in five different subjects are:

2, 4, 6, 8, 10. Find

i. Mean, median and mode. (3)

ii. Write the formula of Q1 (1st Quartile). (1)

iii. Write the relation between mean, median and mode. (1)

3. If 2, x, 8, y, 32 is a G.P

i. Define geometric sequence. (1)

ii. Write the formula of common ratio. (1)

iii. Find the values of x and y. (2)

iv. Write the formula of nth term of A.S. (1)

4. i. Construct a trapezium MNOP, MN//OP, MN=6cm,

NO=3cm, OP=4cm, = (3)

ii. Is trapezium a parallelogram. (1)

iii. Define trapezium. (1)

5. Define the following terms:

i. sigma notation ii. Sequence iii. Series (3)

iv. , find the sum of 5 terms. (2)

**Good Luck!**

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**Weekly test of Maths, class: 10, FM:25, PM:10**

**Time:40mins**

1. A tree of height 20 m is broken by the wind. It touches the ground at an angle of . Find:

i. the height of remaining part of the tree.(2)

ii. Define angle of depression. (1)

iii. How far does the tree touches the ground? (2)

2. If 2, x, 8, y, 32, is G.P

i. Define geometric sequence. (1)

ii. Write the formula of the general term of geometric sequence. (1)

iii. Fint the value of x and y. (3)

3. From the given data, find mean and mode. (3)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| X: | 0-10 | 0-20 | 0-30 | 0-40 | 0-50 |
| F: | 3 | 5 | 7 | 5 | 3 |

i. Write the formula of median. (1)

ii. Write the relation between mean, median and mode. (1)

4. a. Solve: 2x2=72 (1)

b. Sove: 4x+ = 16 (3)

c. What is the value of 5-1×x0 (1)

5. A tent is made by cloth, if the diameter of tent is 14m and

height is 10m. Find:

i. LSA, TSA and volume of the tent. (3)

ii. Find the cost of making tent with cloth at Rs. 250/m2

(2)

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