VIVEK TUTORIALS

Practice Test

Std: SSC (E.M)	**Subject: Mathematics I**	**Time: 45Min**
Date : 26/Dec/2019	**AP**	**Max Marks: 20**

Q.1   Solve the following questions   **2**

1) Which of the following sequences are A.P. ? If they are A.P. find the common difference: -10, -6, -2, 2, . . .

2) Which of the following sequences are A.P. ? If they are A.P. find the common difference:

$$-\frac{1}{5}, -\frac{1}{5}, -\frac{1}{5}, \ldots\ldots\ldots$$

Q.2   Solve the following questions   **4**

1) Find the 19th term of the following A.P. 7, 13, 19, 25, . . .

2) Write an A.P. whose first term is a and common difference is d in each of the following:
(i) a = 6, d = -3
(ii) a = -19, d = -4

Q.3   Complete the following Activities   **4**

1) In the year 2010 in the village there were 4000 people who were literate. Every year the number of literate people increases by 400. How many people will be literate in the year 2020?

Year	2010	2011	2012	. . .	2020
Literate People	4000	4400	4800	. . .	☐

$a = 4000, \quad d = 400 \quad n = 11$

$$t_n = a+(n-1)d$$
$$= \boxed{} + (11-1)400$$
$$= 4000 + 4000$$
$$= \boxed{}$$

In year 2020, $\boxed{}$ people will be literate.

2) First term and common difference of an A.P. are 6 and 3 respectively ; find S_{27}.

$$S_n = \frac{n}{2}[\boxed{} + (n-1)d]$$
$$S_{27} = \frac{27}{2}[12+(27-1)\boxed{}]$$
$$= \frac{27}{2} \times \boxed{}$$
$$= 27 \times 25$$
$$= \boxed{}$$

Q.4   **Solve the following questions**   **6**

   1) Decide whether following sequence is an A.P., if so find the 20th term of the progression. -12, -5, 2, 9, 16, 23, 30, . . .

   2) Which of the following sequences are A.P ? If it is an A.P, find next two terms:

$$\frac{3}{2}, \frac{1}{2}, -\frac{1}{2}$$

Q.5   **Solve the following questions(challenging)**   **4**

   A mixer manufacturing company manufactured 600 mixers in 3rd year and in 7th year they manufactured 700 mixers. If every year there is same growth in the production of mixers then find (i) Production in the first year (ii) Production in 10th year (iii) Total production in first seven years.

                                               -------- All the Best --------