10.05.2

EE23BTECH11053-R.Rahul*

QUESTION:

1. In the following APs, find the missing terms in the boxes:

(i) 2,, 26

(ii) , 13, , 3

(iii) 5, , ,$9\frac{1}{2}$

(iv)'- 4', , , , , 6

(v) , 38, , , , '- 22'

Solution:

(i) a_1=2 a_3=26 a_3=a+2d

$\implies$ 26=2+2*d $\implies$ d=12

a_2=14

(ii) a_2=13 a_4=3 , a_2=a+d a_4=a+3d

$\implies$ 3-13=2d $\implies$=-5

a_1=18 ,a_3=8

(iii) a_1=5, a_4=$9\frac{1}{2}$ a_4=a+3d

$\implies$ $9\frac{1}{2}$=5+3d ..3d=$4\frac{1}{2}$ $\implies$ d=$1\frac{1}{2}$

a_2=$6\frac{1}{2}$, a_3=8

(iv) a_1=-4 a_6=6 a_6=a+5d

$\implies$ 6=-4+5d $\implies$10=5d ... d=2

a_2=-2 a_3=0 a_4=2 a_5=4

(v)a_2=38 a_6=-22

$\implies$ -22-38=4d... d=-15

a_1=53 a_3=23 a_4=8 a_5=-7