

Ex 5.1

P II

2 (v) $a = -1, d = \frac{1}{2}$

First 4 terms are $-1, -1 + \frac{1}{2}, -1 + 2 \times \frac{1}{2}, -1 + 3 \times \frac{1}{2}$
 $= -1, -\frac{1}{2}, 0, \frac{1}{2}$

2 (vi) $a = -1.25, d = -0.25$

First 4 terms are $-1.25, -1.25 + (-0.25), -1.25 + 2(-0.25), -1.25 + 3(-0.25)$
 $= -1.25, -1.5, -1.75, -2$

3 (i) first term (a) = 3

common difference (d) = $1 - 3$
 $= -2$

3 (ii) $a = -5$

$d = -1 - (-5)$
 $= 4$

3 (iii) $a = \frac{1}{3}, d = \frac{5}{3} - \frac{1}{3}$
 $= \frac{4}{3}$

3 (iv) $a = 0.6, d = 1.7 - 0.6$
 $= 1.1$

4 (i) 2, 4, 8, 16, ...

$a_2 - a_1 = 4 - 2$
 $= 2$

$a_3 - a_2 = 8 - 4$
 $= 4$

$\therefore a_3 - a_2 \neq a_2 - a_1$

\therefore Not A.P.

4 (ii) 2, $\frac{5}{2}, 3, \frac{7}{2}$

$a_2 - a_1 = \frac{5}{2} - 2$
 $= \frac{1}{2}$

$a_3 - a_2 = 3 - \frac{5}{2}$
 $= \frac{1}{2}$

$a_4 - a_3 = \frac{7}{2} - 3$
 $= \frac{1}{2}$

\therefore diff. remains constant

\therefore A.P.