

## SEQUENCES & SERIES (Q 5, PAPER 1)

### LESSON NO. 1: WORKING WITH SEQUENCES

**2007**

5 (a) The  $n$ th term of a sequence is given by  $T_n = 1 - n$ .

(i) Find  $T_5$ , the fifth term.

(ii) Find  $T_5 - T_{10}$  where  $T_{10}$  is the tenth term

**2000**

5 (a) The  $n$ th term of a sequence is given by  $T_n = n^2 + 1$ .

(i) Write down the first three terms of the sequence.

(ii) Show that  $T_1 + T_2 + T_3 = T_4$ .

**1999**

5 (a) The  $n$ th term of a sequence is given by

$$T_n = \frac{n}{n+1}.$$

(i) Find  $T_2$ , the second term.

(ii) Show that  $T_2 + T_3 > 1$ .

#### ANSWERS

**2007** 5 (a) (i)  $-4$  (ii)  $5$

**2000** 5 (a)  $2, 5, 10$

**1999** 5 (a) (i)  $\frac{2}{3}$