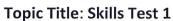
MATHEMATICS DEPARTMENT

Course: A3MAA





Student Name: Answevs.		Date:	2016
Special Instructions: No Calculators		Time Allov	ved: 20 mins
	(· i	Marks:	114-14
Question 1 For the recursive equation $T_{n+1} = T_n + 7$ describe t	~		
To Find the next term,	previou	us tei	m
add 8.7			
			+2
Question 2 For the recursive equation $T_n = T_{n-1} - 3$ describe	the sequence in	words.	
To find the next te	rm, pre	eviou	s term
subtract 3	1		

Question 3

State a recursive formula for the following sequence.

32, 26, 20, 14,
$$\alpha = 32$$
 $d = -6$
 $T_{n+1} = T_n - 6$, $T_1 = 32$.

+2

Question 4

Determine the first five terms for the following recursive formula

$$T_{n+1} = T_n - 4, \qquad T_1 = 55$$

$$T_1 = 55$$

 $T_2 = 55 - 4$
 $= 51$
 $T_3 = 51 - 4$
 $= 47$
 $= 47$
 $= 47$
 $= 39$
 $= 39$

Question 5

A sequence is defined by:

$$T_n = 15 + 3n$$

Find the

a)
$$T_4 = 15 + 3(4)$$

= 27 .

b)
$$T_{25}$$
 $T_{25} = 15 + 3(25)$
= 15 + 75

Question 6

Determine the general form expression for the following arithmetic sequence:

$$T_n = at(n-1)d$$
. $a=12$.
 $d=11$.
 $T_n = 12 + (n-1)11$
 $= 12 + 11n - 11$. $\sqrt{\sqrt{ }}$
 $T_n = 11n + 1$