## RAMAKRISHNA MISSION VIDYAMANDIRA

Belur Math, Howrah - 711 202

## ADMISSION TEST – 2016

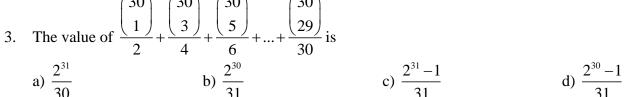
## **ECONOMICS (Honours)**

Date: 14-06-2016 Full Marks: 50 Time: 02.30 p.m - 04.00 p.m

## Instructions for the candidate

Use a separate Answer book for each group. Answer all the questions

		$\underline{\mathbf{Group}} - \underline{\mathbf{A}}$	[6×5]
1.	If $a_0 = 1$ , $a_1 = 1$ and $a_n = a_{n-1}a_{n-2} + 1$ for $n > 1$ , then		
	a) $a_{465}$ is odd and $a_{466}$ is even	b) a <sub>465</sub> is odd and a <sub>466</sub> is odd	
	c) $a_{465}$ is even and $a_{466}$ is even	d) $a_{465}$ is even and $a_{466}$ is odd	
2.	Find the domain of definition of the real valued function $f(X) = \log_e[x]$ , where [x] denotes the greatest		
	integer value function.		
	a) Set of all real numbers	b) [1,∞)	
	c) Set of reals except (-1, 1)	d) none of these	
	(30) $(30)$ $(30)$	(30)	



Suppose that the function g given by  $g(x) = ax^2 - 4\sqrt{x} + 1$ , if 0 < x < 1 and g(x) = bx + 5, if  $x \ge 1$ , is differentiable for all x > 0. Then

a) 
$$a = 0$$
 and  $b = -2$ 

b) 
$$a = 6$$
 and  $b = 10$ 

c) 
$$a = -6$$
 and  $b = -14$ 

d) a is any real number and b = 2a - 2

5. Let a, b, c be distinct real numbers. Then the number of real solution of  $(x-a)^3 + (x-b)^3 + (x-c)^3 = 0$  is b) 2 c) 3 d) depends on a, b, c

A straight line segment AB of length a moves with its ends on the axes. Then the locus of the point P such that AP:BP=2:1 is

a) 
$$9(x^2 + y^2) = 4a^2$$
 b)  $9(x^2 + 4y^2) = 4a^2$  c)  $9(4x^2 + y^2) = 4a^2$  d)  $9x^2 + 4y^2 = 4a^2$ 

b) 
$$9(x^2 + 4y^2) = 4a^2$$

c) 
$$9(4x^2 + y^2) = 4a^2$$

d) 
$$9x^2 + 4y^2 = 4a^2$$

Group - B  $[1\times20]$ 

Suppose the new government in West Bengal chooses you as the Finance Minister. What type of policies are you going to take? describe your policy priorities within 250 words.

