

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

Group – A

[6×5]

- If $a_0 = 1$, $a_1 = 1$ and $a_n = a_{n-1}a_{n-2} + 1$ for $n > 1$, then
 - a_{465} is odd and a_{466} is even
 - a_{465} is odd and a_{466} is odd
 - a_{465} is even and a_{466} is even
 - a_{465} is even and a_{466} is odd
- Find the domain of definition of the real valued function $f(X) = \log_e[x]$, where $[x]$ denotes the greatest integer value function.
 - Set of all real numbers
 - $[1, \infty)$
 - Set of reals except $(-1, 1)$
 - none of these
- The value of $\frac{\binom{30}{1}}{2} + \frac{\binom{30}{3}}{4} + \frac{\binom{30}{5}}{6} + \dots + \frac{\binom{30}{29}}{30}$ is
 - $\frac{2^{31}}{30}$
 - $\frac{2^{30}}{31}$
 - $\frac{2^{31}-1}{31}$
 - $\frac{2^{30}-1}{31}$
- 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 $x \geq 1$, is differentiable for all $x > 0$. Then
 - $a = 0$ and $b = -2$
 - $a = 6$ and $b = 10$
 - $a = -6$ and $b = -14$
 - a is any real number and $b = 2a - 2$
- 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
 - 1
 - 2
 - 3
 - 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
 - $9(x^2 + y^2) = 4a^2$
 - $9(x^2 + 4y^2) = 4a^2$
 - $9(4x^2 + y^2) = 4a^2$
 - $9x^2 + 4y^2 = 4a^2$

Group – B

[1×20]

- 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.

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