RAMAKRISHNA MISSION VIDYAMANDIRA
Belur Math, Howrah – 711 202
ADMISSION TEST – 2022
ECONOMICS (Honours)

Date : 02-07-2022   **Full Marks : 50**   Time: 11·00 a.m. – 12·00 noon

[Use a separate Answer Book for each group]

Group – A

Answer all the following questions : [6×5=30]

1. Find the value of $\begin{vmatrix} 10! & 11! & 12! \\ 11! & 12! & 13! \\ 12! & 13! & 14! \end{vmatrix}$

2. Determine $f(0)$ so that the function $f(x)$ defined by $f(x) = \dfrac{\left(4^x - 1\right)^3}{\sin\dfrac{x}{4} \log\left(1 + \dfrac{x^2}{3}\right)}$ becomes continuous at $x = 0$.

3. Differentiate the following function with respect to x :

$$\sqrt{\log\left\{\sin\left(\dfrac{x^3}{3} - 1\right)\right\}}$$

4. When a group photograph is taken, all the seven teachers should be in the first row and all the twenty students in the second row. If the two corners of the second row are reserved for the two tallest students, interchangeable only between them and if the middle seat of the front row is reserved for the Principal, how many arrangements are possible?

5. Find the probabilities that when a hand of 7 cards is dealt from a well-shuffled deck of 52 cards, it contains : (i) all 4 kings (ii) exactly 3 kings, (iii) at least 3 kings.

Group – B

[Essay Writing]

6. Suppose you are the finance minister of a developing country with huge population. In the post-COVID -19 era, what policies would you like to pursue to achieve a V-Shaped economic recovery? [20]

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