

U.G. 3rd Semester Examination - 2021**MATHEMATICS****[HONOURS]****Course Code : MATH(H)-CC-P-07****[PRACTICAL]****SET-4**

Full Marks : 20

Time : 2 Hours

*The figures in the right-hand margin indicate marks.***Answer all the questions:** $10 \times 2 = 20$

1. Write a 'C' program to find the value of y at x=0.6 by Runge-Kutta method, from the differential equation

$$\frac{dy}{dx} = \frac{0.5 - x + y^2}{1 + y + x^2}$$

With $y(0)=0$, taking $h=0.110$

2. Write a 'C'-program to solve the equation $e^x + \cos x = 25$ by Newton-Raphson method.
