# U.G. 3rd Semester Examination - 2020

# 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:**                    10×2=20

1.   Write a program in C to find y(0.4) from the equation

$\dfrac{dy}{dx} = x^2 - 2xy$, $y(0)$=1 taking $h$=0.1 by Runge-Kutta method. Write the output result.

2.   Write a C programme to find the solution of the system of equations by Gaussian elimination method:

$$5x_1+x_2-2x_3=1,$$
$$2x_1-x_2-5x_3=-15,$$
$$x_1-3x_2+7x_3=16.$$

Hence solve it.

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