

**U.G. 3rd Semester Examination - 2021**

**MATHEMATICS**

**[HONOURS]**

**Course Code : MATH-H-CC-P-07**

**[PRACTICAL]**

**SET-5**

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 C programme to evaluate  $\int_0^{\frac{\pi}{2}} \frac{dx}{\sqrt{(1-0.165 \cos^2 x)}}$   
using Simpson's one third rule.
2. Solve using Modified Euler's method. Also find  $y(3)$ .

$$\frac{dy}{dx} = \frac{y \ln(y)}{x}, y(2) = e$$

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