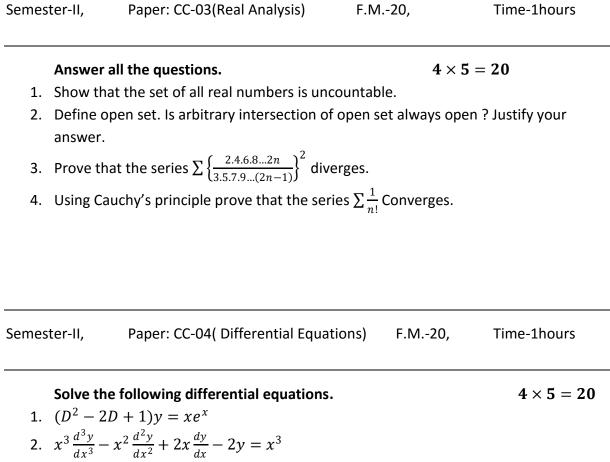
Internal Examination 2023 Department of Mathematics Nabadwip Vidyasagar College



3. Solve by variation by parameter

$$\frac{d^2y}{dx^2} + 2\frac{dy}{dx} + y = \frac{1}{x^2e^x}.$$
4.
$$\frac{dx}{x^2 - y^2 - z^2} = \frac{dy}{2xy} = \frac{dz}{2xz}.$$