





**Term Evaluation (Odd) Semester Examination September 2025**

**Q5.**

**(10 Marks) (CO2)**



Given  $\phi(2) = 0.9772$ ,  $\phi(0) = 0.5$  and  $\phi(3) = 0.9987$ , where  $\phi(z) = P(Z \leq z)$ .

OR

- b) Calls arrive at a helpdesk at an average rate of 2 per minute (Poisson distribution with  $\lambda = 2$ ). Evaluate the following:

  - Probability of getting exactly 3 calls in a minute,
  - Probability of getting at most 2 calls in a minute.