

CC – T – 02

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Answer ALL questions

1. Solve: 2
$$(2x - y + 1)dx + (2y - x - 1)dy = 0$$
2. Solve: 2
$$\frac{dy}{dx} + 1 = e^{x-y}$$
3. Solve: 2
$$(x - a)p^2 + (x - y)p - y = 0$$

where, $p = \frac{dy}{dx}$
4. Solve: 2
$$\frac{d^2y}{dx^2} - 4\frac{dy}{dx} + 4y = xe^x$$
5. Solve the partial differential equation 2
$$z = px + qy + p^2 + q^2$$

where, $p = \frac{\partial z}{\partial x}, q = \frac{\partial z}{\partial y}$

FOR PROGRAMME COURSE STUDENTS, THE QUESTION ENDS HERE