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| **Student’s Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |

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| **Question Number** | **I** | **II** | **III** | **Total** |
| **Mark** |  |  |  |  |

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| **Question I:** Choose the correct answer   1. If  then the relation  is   (a) an explicit solution (b) an implicit solution (c) a particular solution (d) None of the previous |
| (2)The differential equation is  (a) of order 5 and nonlinear (b) of order 6 and nonlinear (c) of order 5 and linear (d) None of the previous |
| (3) The value of that makes exact is  (a) (b) -3 (c) -2 (d) None of the previous |
| (4) The function is homogeneous of degree  (a) (b) (c) -1 (d) None of the previous |
| (5) The differential equation is  (a) first order linear equation (b) exact equation (c) Bernoulli equation (d) None of the previous |
| **Question II:** A. Determine the region of the for which the differential equation has a unique solution  B. Find the integrating factor for the following linear differential equation    **Question III**: A. Solve the following differential equations    (2) = 4  B. Solve the Initial Value Problem  Good Luck☺ |
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