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

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| **Question I:** Choose the correct answer  (1) The differential equation is of(a) order 4 and nonlinear (b) order 6 and nonlinear (c) order 4 and linear (d) None of the previous |
|  (2) The value of that makes exact is  (a) (b) (c) -2 (d) None of the previous |
|   (3) The function is homogeneous of degree (a) (b) (c) (d) None of the previous\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| (4) To solve the differential equation we use the substitution (a) (b) (c) (d) None of the previous\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(5) The one parameter family of solutions for is The trivial solution for this differential equation is a(a) particular solution (b) member of the family of solutions (c) singular solution (d) None of the previous |
| **Question II:** A. Determine the region of the for which the differential equation has a unique solutionB. Find the integrating factor for the following linear differential equation **Question III**: A. Solve the following differential equations (2) = 4B. Solve the Initial Value ProblemGood Luck☺ |
|   **Question III:** A. Solve the following differential equations:1.2.B. Solve the Initial Value Problem |

Good Luck ☺