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| **Text  Description automatically generated** | | | | | |
| **PT3/MAQP/1221/A 24-JAN-2022** | | | | | |
| **PERIODIC TEST – III (2021-22)** | | | | | |
| **Subject: MATHEMATICS**  **Grade: 12** | | | Max. Marks:35Time:1 Hr. 20 Mins | | |
| **Name:** | | | | **Section:** | **Roll No:** |
| ***General Instructions:***   * ***Questions in Section A carries 2 marks each*** * ***Questions in Section C carries 3 marks each***   ***Questions in Section D carries 4 marks each*** | | | | | |
|  | **SECTION A** | | | | |
| **1** | Evaluate | | | | |
| **2** | Write the order and degree( when defined ) of the following differential equations :    (i)  (ii) | | | | |
| **3** | Find the solution of the differential equation : | | | | |
| **4** | Evaluate  ) dx | | | | |
| 5 | Find the area of the region bounded by the parabola  y2= x and the straight line 2y = x | | | | |
| 6 | Solve the differential equation : | | | | |
| **SECTION B** | | | | | |
| **7.** | Find the area of the smaller region bounded by the ellipse | | | | |
| **8** | Evaluate | | | | |
| **9** | Solve the following differential equation : | | | | |
| **10** | Find the area of the region bounded by y = and y = | | | | |
| **11** | Evaluate the following integral **:** | | | | |
| **SECTION D** | | | | | |
| **12** | | Find the particular solution of the differential equation :  , given that when x= 2, y = | | | |
| **13.** | | **Evaluate** | | | |

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