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|  | | **SRM Institute of Science and Technology**  **Kattankulathur** |  |
| **DEPARTMENT OF MEATHEMATICS** |
| **18MAB102T ADVANCED CALCULUS & COMPLEX ANALYSIS** |
| **UNIT –V Complex Integration** |
| **Sl.No.** | | **Tutorial Sheet -3** | **Answers** |
| **Part – A** | | | |
| **1** | **Find the residues of** | | **2e-z** |
| **2** | **Find the residues of  at z=ai** | | **2aieai** |
| **3** | **Find the residues of** | | ***-2*** |
| **4** | **Find the residues of** | | **,** |
| **5** | **Find the residues of** | | **1** |
| **Part – B** | | | |
| **6** | **Using Cauchy’s residues theorem, evaluate where C is a circle │z│=2** | | **4πi** |
| **7** | **Using Cauchy’s residues theorem, evaluate where C is an ellipse** | | **(16/ 5)πi** |
| **8** | **Show that,(a2<1)** | |  |
| **9** | **Evaluate** | |  |
| **10** | **Evaluate**  **a>│b│** | |  |



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