FMT-09

MSc (SECOND SEMESTER) EXAMINATION, 2021

MATHEMATICS

PAPER: IX

COMPLEX ANALYSIS

MAX MARKS: 35

Note: Attempt all the questions.

Q 1. If $\mathrm{Re}(z) > 0$, then prove that $\Gamma z = \int_0^\infty e^{-t} t^{z-1} dt$

Q 2. Explain power series method of analytic continuation.

Q 3. State and prove Harnax inequality.

Q 4. State and prove Jenson's formula.