

UG Sem - IV Internal Exam - 22 (20-23)  
Math (Core - VIII)

Answer any three question:

- Q1. Define Absolute, relative and percentage Error?
- Q2. Write Newton gregory formula?
- Q3. Apply Gauss's Jordan method  
 $x + 2y + z = 8$ ,  $2x + 3y + uz = 20$  &  
 $4x + 3y + 2z = 16$ .
- Q4. Discuss Boole's rule.

Math (Core IX)

Answer any three question:

- Q1. Define Comparison test.
- Q2. Discuss Abel's theorem.
- Q3. Write Dirichlet's test.
- Q4. Write Hadamard theorem.

Math (Core X)

Answer any three question:-

- Q1. Define rings and properties of rings?
- Q2. Define Integral domain of set R?
- Q3. Write the definition of sub-ring of R?
- Q4. Every field is an integral domain but the converse is not necessarily true.



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# Math (GE/GEN)

Answer any three question.

- Q1. Show that  $U(10)$  is an Abelian group under multiplication modulo 10.
- Q2. State and Prove Lagrange's theorem.
- Q3. Prove that the residue classes mod 6 form a group w.r.t. addition mod 6.
- Q4. Prove that the set of complex number is an abelian group under addition.