

# MARWARI COLLEGE RANCHI

Subject : FL & AT

Full Marks : 30

Paper : XVI

Time : 1Hr.

## MCA SEMESTER 3

### Mid semester examination 2017

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#### GROUP – A

1. Do as directed: 2 x 5 = 10
- IF P THEN Q can be denoted by.....
  - A.....is a wff whose truth value is T for all possible assignments.
  - State De Morgan's Law.
  - State Destructive Dilemma.
  - The set Z with multiplication is an .....

#### GROUP - B

Answer any **TWO** questions: 5 x 2 = 10

- Prove Z with addition is an Abelian group.
- What is a Set and Subset? Discuss the operations on sets.
- Define a finite automation.

#### GROUP - C

Answer any **ONE** question: 10 x 1 = 10

- Define a field.
- Discuss the validity of the following argument  
All graduates are educated.  
Ram is a graduate.  
Therefore, Ram is educated.