Roll No.
MCA-13
2ₙₔ Year Examination, Academic Batch 2016-17
(A) Visual Basic
(B) Discrete Mathematics

Time : 3 Hours]   *[Max. Marks : 100*
Note. *Attempt any five questions. All questions carry equal marks.*

Q.1. (a) Prove that G = { 1,2,3,4,5,6} is a finite abelian group of order 6 under multiplication modulo 7.
(b) Explain the sub-group with example.

Q.2. (a) Consider the set M of all 2×2 matrices of the type [a/(-b) b/(-a)] where a',b' are the conjugates of a and b. Is M a field?
(b) Explain the cyclic group with example.

Q.3. Write short notes on: [Any Four]
(i) Complete graph (ii) Walk (iii) Bipartite graph (iv) Trees (v) Spanning Tree

Q.4. (a) Explain the planner and non planner graph.
(b) Explain the Konigberg's bridge problem.

Q.5. What are Picture Boxes? How are they used?

Q.6. (a) What do you understand by the concepts of Projects in V.B?
(b) Describe the Event –Driven Programming.

Q.7. (a) What are Class Modules?
(b) How would you create a MDI form?

Q.8. Describe the Various Types of Arrays.