COURSE CODE-3050110

PG DIPLOMA EXAMINATION – JAN 2009

PGDCA

MATHEMATICAL FOUNDATION OF COMPUTER SCIENCE

(For Candidate Admitted from Calendar 2007 Onwards)

Time: 3 Hours **Max.Marks:75**

Section-A

Answer all the Questions: **15 X 1 = 15**

1. What is truth table?
2. What is predicate calculus?
3. What is Inference theory?
4. What is normal forms?
5. What is permutation/?
6. What is Combination ?
7. What is Group?
8. What is Monoid?
9. What is ring?
10. What is field?
11. What is lattices?
12. What is Momorphism?
13. What is Harse diagram?
14. What is Primitive functions
15. What is recursive functions

Section-B

Answer any Five Questions: **5 X 6 = 30**

16. a. Write about truth tables.

(Or)

b. Explain about inference theory for statement calculus

17. a. Explain permutation with example

(Or)

b. Write down the principle of inclusion and exclusion.

18. a Explain about groups

(Or)

b. Explain about Homomorphism

19. a. write down the properties of lattices

(Or)

b. Write short notes on Bookan algebra

20. a. What is recursive function? Explain it

(Or)

b. Explain about primitive functions.

Section- C

Answer any Two Questions: **2 X 15 =30**

21. Explain in detail about predicate calculus with example
22. Explain pigeon hole principle
23. Explain with examples the various types of rings
24. Briefly explain partially order set
25. Explain in detail about primitive functions.