

**COURSE CODE - 3050107**

**PG DIPLOMA EXAMINATION- JAN 2009**

**PGDCA**

**COMPUTER FUNDAMENTALS & PROGRAMMING IN C**

**(For the Candidates Admitted from Calendar Year 2007)**

**Time: 3 hours**

**Max. Marks 75**

**Section-A**

**Answer all the Questions:**

**15 X 1=15**

1. What is the decimal equivalent of  $(100011)_2$ ?
2. What is OR Gate? Give the truth table.
3. What are Registers? How they one important?
4. Define flipflop.
5. What is an Accumulator?
6. What is an Adder?
7. What is subtractor?
8. What is decoder?
9. What is encoder?
10. What is Mux?
11. What is Demux?
12. Define pointers.
13. Define Recursion
14. Define structure.
15. Define Union.

**Section – B**

**Answer any Five Questions:**

**5 X 6 =30**

16. a. Explain about Binary storage.

**(Or)**

b. i. Find Binary equivalent of  $(1234.89)_{10}$ ?

ii. Find octal equivalent of  $(FF7)_{16}$ ?

17. a. What is a 6 variable Map? Explain with an example?

**(Or)**

b. Explain flipflop with types.

18. a. Explain digital computer with block diagram.

**(Or)**

b. Explain Full subtractor.

19. a. Explain the functionality of for statement with an example.

**(Or)**

b. Explain the following with example. i. Call by reference

ii. Call by value.

20. a. What is a pointer? Explain.

**(Or)**

b. How does a structure differ from Union? Explain.

**Section – C**

**Answer any Two Questions:**

**2 X 15 =30**

21. With suitable diagrams, explain the logic gates with its truth tables.

22. Explain shift registers and counters in detail

23. Explain multiplexer & demultiplexer with suitable diagram.

24. What is recursion? Explain with example.

25. Explain how to declare and initialize the pointers.