First Year Examination of the Three Year Degree Course, 2001 (Faculty of Science) COMPUTER SCIENCE Second Paper (Introduction of Computer Programming Using PASCAL Language)

> Time - Three Hours Maximum Marks – 50

Attempt **FIVE** questions in all, Choosing ONE question from each Unit.

#### UNIT -I

- 1. Write short notes on the following :-
  - (i) CPU
  - (ii) Machine instruction
  - (iii) Fetch and execution cycle in a computer.
- 2. (a) Explain various types of computers.
  - (a) Explain different computer generations.

### UNIT II

- 3. What are the various steps to develop a program? Explain in detail.
- 4. What is the algorithm? Define the properties of algorithm? Write an algorithm to calculate the sum of digits in a given number.

### UNIT III

- 5 (a) What are th scalar data types in Pascal? Differentiate these with sub-range data types.
  - (b) Write down the structure of a Pascal program.
- 6. Write a Pascal program to calculate 10 no's of Fibonacci series.

# UNIT IV

- 7. What do you understand by Top-down modular design? Explain the advantage and disadvantage of structured programming.
- 8. Explain functions and procedures. Describe recursion with an appropriate example.

# UNIT V

- 9. Define Set. Write a Pascal program to count the no. of vowels in a given text.
- 10. What are the different types of files available in Pascal? Explain elementary operations on a file.

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