



UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)  
उत्तराखण्ड मुक्त विश्वविद्यालय, हल्द्वानी (नैनीताल)

**MCA-11/MCA-16 2<sup>nd</sup> YEAR 3<sup>rd</sup> SEMESTER ASSIGNMENT**

*Last Date of Submission: 15 Dec, 2016*

**Course Title: Operating System**

**Course Code: MCA-11**

**Year: 2016-17**

**Maximum Marks: 30/40 Marks**

**Section 'A'**

Section 'A' contains 08 short answer type questions of 4/5 marks each. Learners are required to answer 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.

1. What is demand paging?
2. Mention the objectives of file management system.
3. What is thread? Explain.
4. Differentiate the various file access methods.
5. Explain Process Control Block.
6. What is the purpose of Inter Process Communication?
7. What do you mean by multiprogramming?
8. Define the difference between preemptive and non-preemptive scheduling

**Section 'B'**

Section 'B' contains 04 long answer-type questions of 7/10 marks each. Learners are required to answer 02 questions only.

1. What are system calls? What are the different categories of system call?
2. Answer the following:
  - a. What is a deadlock? Explain the necessary conditions for its occurrence.
  - b. Explain with example how resource allocation graph is used to describe the deadlock.
3. Explain the Banker's deadlock-avoidance algorithm with an illustration.
4. What are the functions of a Process Management System? Explain.