

**UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)****BCA-II 2nd YEAR 3rd SEMESTER ASSIGNMENT**

Last Date of Submission: 15 Jan. 2015

Course Title: Operating System**Course Code: BCA-10****Year: 2014-15 Summer****Maximum Marks: 40 Marks****Section 'A'**

Section 'A' contains 08 short answer type questions of 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. (i) What is Operating System?
(ii) What is NFS?
2. (i) What is trap?
(ii) Define context switching.
3. What is a virtual memory? What are its advantages?
4. State the concept of mutual exclusion.
5. Explain with suitable diagram layered and monolithic operating system structures.
6. Explain concept of swapping with diagram.
7. Distinguish between the client-server and peer-to-peer models of distributed systems.
8. What is process? Draw process state diagram and state its meaning.

Section 'B'

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

1. Explain Banker's algorithm for deadlock avoidance with an illustration.
2. Write in detail about threading issues.
3. With a neat sketch, explain about Segmentation and Paging.
4. Discuss about any three page replacement algorithm in detail.