



157A/W/14/0077

B. Sc. (Part - II) - II Year : Computer Science- II  
**(Operating System Concepts and UNIX)**  
**Paper – II**

P. Pages : 4

Time : Three Hours

Max. Marks : 60

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- Notes : 1. All questions carry equal marks.  
2. Draw neat and clean diagram whenever necessary.

Either

1. a) What is operating system ? Write main functions of an operating system. **6**
- b) List different types of operating system and explain any two of them. **6**

**OR**

- c) What do you mean by storage structure ? Explain in detail. **6**
- d) What is Deadlock ? Explain by giving a suitable example. **6**

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**2. Either**

- a) Explain different operating system components in detail. **6**
- b) Explain : **6**
  - i) Main Memory Management.
  - ii) Secondary Storage Management.

**OR**

- c) What is system call ? Explain in detail with diagram. **6**
- d) What is system structure ? Explain simple structure and layered structure. **6**

**3. Either**

- a) Explain different features of UNIX operating system in detail. **6**
- b) What are UNIX commands ? Categories the UNIX commands. **6**

**OR**

c) Explain following filters commands with example : **6**  
i) grep  
ii) egrep  
iii) fgrep

d) Explain the need for an editor. List three different modes available in Vi editor. **6**

**4. Either**

a) Explain different communication utilities available in UNIX. Explain any two with example. **6**

b) What is secret mail ? Discuss commands to send and receive secret mail. **6**

**OR**

c) Explain Role of system administrator in UNIX OS. **6**

d) Explain following security and protection commands in UNIX. **6**  
chmod  
chown  
chgrp

**5. Either**

- a) What is shell programming ? List the usage of shell programming. **6**
- b) What are the steps for writing and running shell script ? Explain in detail. **6**

**OR**

- c) Discuss while and until control structure giving suitable example. **6**
- d) Write a shell script to create a file and write content into that file. **6**

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