

B.C.A.-I (CBCS Pattern) Semester - II  
**UBCAT204 - Paper-IV : Operating System and Linux**

P. Pages : 2

Time : Three Hours



**GUG/S/23/11715**

Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagram wherever necessary.
  3. Avoid vague answers and write specific answer related to question.

**Either:**

1. a) What is Batch processing system? List advantage and disadvantage of it. 8
- b) Write a note on: 8
  - i) Storage structure.
  - ii) Storage Hierarchy.

**OR**

- c) Define with suitable example what I/O Interrupts are. 8
- d) What is Swapping? Explain swap-in and swap-out. 8

**Either:**

2. a) Describe file management in operation system. 8
- b) Explain following in detail. 8
  - i) Simple system structure.
  - ii) System calls.

**OR**

- c) List and explain in detail the operating system components. 8
- b) What is the purpose of command interpreter? Explain. 8

**Either:**

3. a) Give the architecture of Linux operating system and explain it. 8
- b) Explain wildcard characters in linux with suitable example. 8

**OR**

- c) Give syntax, purpose and example of following commands. 8
  - i) cat                      ii) cp                      iii) mv                      iv) pwd
- d) What is I-node? Name Pieces of information held in an I-node. 8

**Either:**

- 4.** a) Discuss following shell variables. **8**  
i) \$HOME ii) \$PATH iii) \$TERM
- b) Explain user and system defined variables with example. **8**

**OR**

- c) Write a program in shell script to create a file and write content into that file. **8**
- d) Explain pipe and filters with suitable example. **8**
- 5.** Attempt **all** the questions.
- a) What is Bootstrap program? **4**
- b) Explain various attributes associated with files. **4**
- c) Explain directory structure of Linux. **4**
- d) Explain Exit statement with suitable example. **4**

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