

Enrollment No: \_\_\_\_\_ Exam Seat No.: \_\_\_\_\_

# C.U.SHAH UNIVERSITY

## Winter Examination-2018

**Subject Name: Operating System**

**Subject Code: 4CS05BOS1**

**Branch: BCA**

**Semester: 5**

**Date: 30/11/2018**

**Time: 10:30 To 01:30**

**Marks: 70**

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
  - (2) Instructions written on main answer book are strictly to be obeyed.
  - (3) Draw neat diagrams and figures (if necessary) at right places.
  - (4) Assume suitable data if needed.
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**Que-1 Attempt all the following MCQs.**

**[14]**

- (1) PCB is associated with \_\_\_\_\_.  
(a) Operating System (b) Deadlock (c) Memory (d) Process
- (2) \_\_\_\_\_ Points to the address where instruction to be executed next is stored.  
(a) Program counter (b) Pointer (c) Register (d) Process state
- (3) Which of the following is not a process state?  
(a) Dead (b) New (c) Ready (d) Running
- (4) Which command is used to create a file in Unix?  
(a) ls (b) cat (c) mkfile (d) mkdir
- (5) \_\_\_\_\_ Command counts characters, words and lines of a file.  
(a) count (b) cd (c) wc (d) tail
- (6) During execution, if any I/O request occurs, process moves to \_\_\_\_\_ state.  
(a) Running (b) Ready (c) Waiting (d) New
- (7) User programs communicate with OS and request services from it by making \_\_\_\_\_.  
(a) Service (b) System call (c) Process (d) Deadlock
- (8) Which of the following is not an attribute of a file?  
(a) Location (b) Size (c) Name (d) Link
- (9) Unix is developed in \_\_\_\_\_.  
(a) 1969 (b) 1979 (c) 1970 (d) 1960



- (10) \_\_\_\_\_ is the utility that processes request of user.  
(a) Tool            (b) File            (c) Kernal            (d) Shell
- (11) \_\_\_\_\_ contains files related to system processes.  
(a) sbin            (b) proc            (c) mnt            (d) home
- (12) \_\_\_\_\_ is called light weight process.  
(a) System            (b) Thread            (c) Service            (d) Server
- (13) The interval from the time of submission of a process through the time of completion is called \_\_\_\_\_.  
(a) Waiting time            (b) Submission time            (c) Throughput            (d) Turnaround time
- (14) Which of the following is not an operating system service?  
(a) Error detection            (b) Error prevention            (c) User interface            (d) Protection

**Attempt any four questions from Que-2 to Que-8**

**Que-2 Attempt all questions. [14]**

1. Discuss different types of operating system in detail. [7]
2. Define process. Explain different process states with diagram. [7]

**Que-3 Attempt all questions. [14]**

1. What is UNIX? Explain its architecture with diagram. [7]
2. Define vi editor. Discuss various modes of vi editor in detail. [7]

**Que-4 Attempt all questions. [14]**

1. What is deadlock? Explain characteristics of deadlock. [7]
2. Write a note on segmentation. [7]

**Que-5 Attempt all questions. [14]**

1. Explain various attributes of file. [5]
2. Explain head and tail commands in detail. [5]
3. Explain different shells of UNIX. [4]

**Que-6 Attempt all questions. [14]**

1. Discuss deadlock prevention in detail. [5]
2. Write a short note on virtual memory. [5]
3. Explain SJF algorithm with suitable example. [4]

**Que-7 Attempt all questions. [14]**

1. Explain various system programs. [5]
2. Define scheduling. Explain FCFS algorithm with example. [5]
3. Discuss deadlock recovery in short. [4]

**Que-8 Attempt all questions. [14]**



1. What is paging? Explain it in detail.
2. Explain cd and pwd commands with example.
3. Discuss file protection in short.

[5]

[5]

[4]

