

Seat	
No.	

Total No of Pages:03

Kamala College, Kolhapur
(Autonomous)
B.C.A. (Part-I) (Semester-II)
Examination March/April, 2024.
Operating System
Subject Code: CC 309



Day and Date: Saturday, 06/04/2024

Total Marks: 80

Time: 12.00 p.m. to 03.00 p.m.

Instructions:

1. Que.1 and Que. 8 are compulsory and attempt any three Questions from Que. No. 2 to Que. No. 7
2. Figures to the right indicate marks.

Q 1) Multiple Choice Questions.

[12]

- 1) What are the types of distributed operating systems?
 - a) Zone based O.S
 - b) Level based O.S.
 - c) Network Operating system
 - d) All of the mentioned
- 2) The operating system is responsible for?
 - a) bad-block recovery
 - b) booting from disk
 - c) disk initialization
 - d) all of the mentioned
- 3) Which of the following component does not belong to PCB (Process Control Block)?
 - a) CPU registers
 - b) CPU scheduling information
 - c) Operating System information
 - d) Accounting information
- 4) When a process is in a "Blocked" state waiting for some I/O service. When the service is completed, it goes to the _____.
 - 1) Terminated state
 - b) Suspended state
 - c)Running state
 - d) Ready state

- 5) Which of the following method is used to improve the main memory utilization?
- a) Swapping
 - b) Operating system
 - c) Memory stack
 - d) None of these
- 6) What is interprocess communication?
- a) communication within the process
 - b) communication between two process
 - c) communication between two threads of same process
 - d) none of the mentioned
- 7) The operating system maintains a _____ table that keeps track of how many frames have been allocated, how many are there, and how many are available.
- a) memory
 - b) mapping
 - c) page
 - d) frame
- 8) The PCB is identified by _____.
- a) Real-Number
 - b) Binary Number
 - c) Store block
 - d) Integer Process ID
- 9) Whenever a process needs I/O to or from a disk it issues a _____.
- a) system call to the operating system
 - b) a special procedure
 - c) system call to the CPU
 - d) all of the mentioned
- 10) CPU scheduling is the basis of _____?
- a) multiprogramming operating systems
 - b) larger memory sized systems
 - c) multiprocessor systems
 - d) none of the mentioned
- 11) Which of the following statement is correct about fragmentation?
- a) It is software that connects the OS.
 - b) It is part of the software.
 - c) Loss the memory
 - d) All of the these
- 12) In Operating Systems, which of the following is/are CPU scheduling algorithms?
- a) Priority
 - b) Round Robin
 - c) Shortest Job First
 - d) All of the mentioned

Q2) Explain in brief Operating System? Functions of operating system

and need of operating system?

[16]

Q3) a) Explain in brief Process Block Control in memory management?

[8]

b) Explain in brief paging concept in memory management?

[8]

- Q4) a) Explain Layered structure of operating System? [8]
b) Explain in brief memory partitioning fixed partitioning and dynamic partitioning? [8]
- Q5) a) Explain Swapping in memory management? [8]
b) Explain logical address space and physical address space? [8]
- Q6) Define Process, Program? Explain in brief process states in process management? [16]
- Q7) a) Explain in brief Client Server structure and Microkernel Structure of Operating System ? [8]
b) Explain File types and File access ? [8]
- Q 8) Write short notes on. (Any Four out of Six) [20]
- 1) Difference between Windows and Linux Operating System
 - 2) Time Sharing Operating System
 - 3) Process Termination
 - 4) Virtual Memory
 - 5) Basic file operations
 - 6) Process Creation


