B.C.A. (Part–II) Semester–III (CBCS) Examination

3 BCA 1

OPERATING SYSTEM

Time : Three Hours]   [Maximum Marks : 80

Note :— (1)   Questions No. **1** is compulsory.

(2)   All other questions carry equal marks.

(3)   Assume suitable data and draw neat labelled diagram wherever necessary.

1.   (A)   Fill in the blanks :   5

(1)   As process enter the system, they are put in _____ queue.

(2)   In some O.S. the command interpreter is called the _____.

(3)   _____ is a system call which creates a new process that is a copy of the current process.

(4)   The simplest directory structure is _____ .

(5)   _____ is a process of attaching a partition to a directory in the file system.

(B)   Choose correct alternative from given options and rewrite the statement :   10

(1)   BIOS is used by _____ .

(a)   Operating system   (b)   Compiler

(c)   Interpreter   (d)   Application

(2)   _____ operating system does not support multi programming.

(a)   Linux   (b)   Unix

(c)   MAC   (d)   DOS

(3)   For reading input operating system uses _____ system call.

(a)   rd   (b)   write

(c)   read   (d)   access

(4)   _____ considers each file to be a sequence of 8-bit bytes.

(a)   DOS   (b)   LINUX

(c)   UNIX   (d)   Android

(5)   _____ is a pointer to another file or subdirectory.

(a)   link   (b)   arrow

(c)   path   (d)   direction

(6) _____ contains details about ownership, size, premissions, dates, etc of file.

(a) Director   (b) File control block

(c) FAT   (d) FTP

(7) _____ is the first partition which is mounted at boot time.

(a) Start   (b) Root

(c) Structure   (d) Mounting

(8) To prepare a drive by deleting all old unused data and setting up a new file system is known as _____.

(a) Creating   (b) Opening

(c) Formatting   (d) Customizing

(9) _____ is a hardware device which is used to transfer data between devices without involving the CPU.

(a) Data controller   (b) DMA controller

(c) Memory controller   (d) CPU controller

(10) _____ is a virtual address created by the CPU of the computer system.

(a) Pogical address   (b) Physical address

(c) Memory address   (d) Pointer address

(C) Answer the following in **one** sentence :   5

(1) What is Open Source Software ?

(2) What is path name ?

(3) What is disk management ?

(4) What is Paging ?

(5) What is process scheduling ?

2. (A) What are various purposes of O.S ?   8

(B) What do you mean by time sharing system ?   4

OR

3. (A) What do you mean by Real time systems ? Give its types and explain.   8

(B) What is online processing ? Explain.   4

4. (A) What are various services given by O.S ?   8

(B) Describe MS DOS layer structure.   4

OR

5. (A) What are major activities of O.S. with respect to file management ? 8

   (B) What is command interpreter ? Explain its working. 4

6. (A) What is file ? What are various file accessing methods ? 8

   (B) Describe linear list directory implementation with example. 4

OR

7. (A) What is Tree structured directory ? Explain with example. 8

   (B) Describe virtual file system. 4

8. (A) Describe various types of DMA controllers. 8

   (B) Give difference between logical and physical address in O.S. 4

OR

9. (A) What is swapping ? Give its advantages and disadvantages. 8

   (B) What are various page replacement algorithms ? 4

10. (A) What are various possible operations on the process ? 8

    (B) Give comparison between long term and short term schedulers. 4

OR

11. (A) Describe multilevel feedback queue scheduling with suitable diagram. 8

    (B) Give difference between process and thread. 4