Second Year B.C.A (Semester - I) Examination
Paper - 15BCA205
Operating System

Time : Three hours]   [Full Marks - 60

N.B. :   i)   All questions carry equal marks
      ii) Due credit will be given to neatness & adequate dimensions.
      iii) Illustrate your answer necessary with the help of neat skectches.
      iv) Use Blue/Black ink/refill only for writing the answer book.

Q.1   Choose correct alternative.   5

   a) Operating system is
      i)   Software   ii) Hardware
      iii) Software/Hardware   iv) Memory

   b) The interval from the time of submission of a process to the time of completion is termed as.
      i)   Waiting time   ii) Turnaround time
      iii) Response time   iv) Throughput

   c) Paging is ?
      i)   Virtual Memory
      ii) Memory Management Scheme
      iii) Allocation of Memory
      iv) Deadlock Prvention Scheme

   d) Kernal is
      i)   Part of operating system
      ii) Operating system
      iii) Hardware
      iv) Register

e) Unix operating system based on.
   i) Language Structure
   ii) Kernal Approach
   iii) Virtual Machine
   iv) Time Sharing

Q.2 a) What is Operating system ? & Explain components
       of Operating System.   6
    b) Explain Characteristics of operating system.   5

                          OR

Q.3 a) Explain Inter process Communication in detail.   6
    b) Explain process, process state, process state
       transition.   5

Q.4 a) Explain Processor sscheduling. Explain types of
       scheduler in details.   6
    b) Explain Scheduling Algorithm & explain following.   5
       i) FIFO   ii) ROUND-ROBIN

                          OR

Q.5 a) What is Deadlock ? And explain characterization of
       deadlock.   6
    b) Explain following terms with example.   5
       i) Mutual Exclusion   ii) Semaphore

Q.6 a) What is Partitioning ? Explain Fixed size, variable
       partioning.   6
    b) Write any five difference between Paging and
       Segmentation.   5

                          OR

Q.7 a) What is Page Replacement ? Explain with FIFO.   5
    b) Explain following terms.   6
       i) Thrashing
       ii) Virtual Memory
       iii) Demand Paging

Q.8 a) Write any five differences between software Interrupt
       & Hardware Interrupt.   5
    b) Explain following terms.   6
       i) I/O Scheduling
       ii) Buffering
       iii) Spooling

                          OR

Q.9 a) What is Disk Scheduling ? Explain any three Disk
       Scheduling.   6
    b) Explain Disk Mangement in detail.   5

Q.10 a) Explain Architecture of Unix O.S.   6
     b) Explain Memory Management of Unix O.S. in
        detail.   5

                          OR

Q.11 a) Explain any Six features of Unix O.S.   6
     b) Explain Security concept of Unix O.S. in detail.   5

                       ******