# C.U.SHAH UNIVERSITY
**Wadhwan City**

Subject Code  :5CS02POS1          **Summer Examination-2014**          Date: 23/06/2014
**Subject Name: Operating System**
**Branch/Semester:- M.Sc(I.T)/II**          **Time:02:00 To 5:00**
**Examination: Regular**
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**Instructions:-**
(**1**) Attempt all Questions of both sections in same answer book / Supplementary
(**2**) Use of Programmable calculator & any other electronic instrument is prohibited.
(**3**) Instructions written on main answer Book are strictly to be obeyed.
(**4**)Draw neat diagrams & figures (If necessary) at right places
(**5**) Assume suitable  & Perfect  data if needed
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## SECTION-I

**Q:1**   **Attempt the following questions.**
          1     What are short, long and medium-term scheduling?                          2
          2      What are turnaround time and response time?                              2
          3     What is the Translation  Lookaside Buffer (TLB)?                          2
          4     What is a semaphore?                                                      1

**Q:2**   **a**      **Attempt the following questions.**
                    (1)  Explain Different Types of Operating Systems.                    4
                    (2)  Explain Computer System Structure.                               4
          **b**   What is process? Describe the elements of PCB in details.              6

**OR**

Q:2   a   Describe inter process communication using message passing. Give a solution to the          8
          Producer / Consumer problem using message passing.
      b   Write a detailed note on remote procedure call (RPC).                          6

Q:3   a   What is scheduling?  Explain FCFS Scheduling with an example.                  7
      b   What is paging? Explain the logical to physical address translation mechanism with          7
          example.

**OR**

Q:3   a   What is segmentation? How does it  differ with paging? Explain address translation in          7
          segmentation with paging.
      b   Explain the round-robin scheduling policy with example.                        7

## SECTION-II

**Q:4**   **Answer the following questions.**
          1     List out some reasons for process termination.                           3
          2     What is relative path and absolute path?                                 2
          3     What is the difference between Primary storage and secondary storage?    2
Q:5   a   Why define File? Explain Different File Operations.                            6
      b      (1)    Comparison of directory with File.                                   4
             (2)    Explain Different Structure of Directory.                            4

**OR**

Q:5   a   Explain File Interface. Explain Different concepts of file (open, create, close)          6
      b      (1)    Explain Different File Access Methods.                               4
             (2)    Explain File Protection in terms of UNIX.                            4

Q:6   a   Explain I/O Hardware Bus Structure.                                            7
      b   Explain I/O System Lifecycle.                                                  7

**OR**

Q:6   a   Explain UNIX SVR4 i/o.                                                         7
      b   Describe software device drivers.                                             7

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