JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- February 2018

B.Tech CSE VIII//M.Tech CSE II Semester

COURSE CODE: 10M11CI212   MAX. MARKS: 15

COURSE NAME: Advanced Operating Systems

COURSE CREDITS: 3   MAX. TIME: 1 Hr.

Note: *All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

Q1. Can a multithreaded solution using multiple user-level threads achieve better performance   [3]
     on a multiprocessor system than on a single-processor system? Explain.

Q2. Illustrate the limitation of Lamport's clock by taking an example.   [3]

Q3. Explain Birman-Schiper-Stephenson (BSS) method for causal ordering of the messages   [5]
     with the help of an example.

Q4. Server B requests time from the time server A at 10:34:502 (hr, min, 1/100 sec). At
     10:34:634, server B receives a reply from A with the timestamp of 10:34:498. Find out the

     i. Adjusted local time of server B.   [2]

     ii. Drift of B's clock with respect to the time-server A's clock.   [2]

     (Assume that there is no processing time at the time server for time service)