Total No. of Questions—**8**] [Total No. of Printed Pages—**3**

Seat No.	

[5057]-256

S.E. (Computer) (Second Semester) EXAMINATION, 2016

OBJECT ORIENTED AND MULTICORE PROGRAMMING

(2012 PATTERN)

Time : Two Hours **Maximum Marks : 50**

N.B. **:—** (*i*) Attempt Q. No. **1** *or* Q. No. **2**, Q. No. **3** *or* Q. No. **4**, Q. No. **5** *or* Q. No. **6**, Q. No. **7** *or* Q. No. **8**.

(*ii*) Neat diagrams must be drawn wherever necessary.

(*iii*) Figures to the right indicate full marks.

(*iv*) Assume suitable data, if necessary.

1. (*a*) Explain the following terms with example : [8]

(1) Constant arguments

(2) Reference variable

(3) Static member functions

(4) Inline functions.

(*b*) Explain the difference between early and late binding. [4]

P.T.O.

Or

2. (*a*) What is operator overloading ? Explain the need of operator overloading. [4]

(*b*) What is the ambiguity problem in inheritance ? How can it be resolved ? [4]

(*c*) Explain in brief manipulators. [4]

3. (*a*) What is an exception ? How is an exception handled in C++ ? [4]

(*b*) What are the most commonly occurring problems when there is concurrent access to data or resources by multiple tasks ? [8]

Or

4. (*a*) Explain *one* application of container class with suitable example. [8]

(*b*) Explain the different activities in process creation. [4]

5. (*a*) Explain architecture of thread with suitable block diagram. [8]

(*b*) Explain the hardware thread and software thread. [5]

Or

6. (*a*) Explain the pthread_create and pthread_join function. [8]

(*b*) What are the different thread attribute. [5]

7. (*a*) Explain *four* basic synchronization relationships between any two tasks. [9]

(*b*) Write a short note on interthread communication. [4]

Or

8. (*a*) Explain delegation model in brief. [7]

(*b*) Explain in brief : [6]

(1) Critical section

(2) Message queue

(3) Mutex semaphore.