JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2016

B.Tech (VIII)/ M.Tech (I) Semester

COURSE NAME: ADVANCED SOFTWARE ENGINEERING   MAX. MARKS: 15

COURSE CODE: 10M11CI213

COURSE CREDITS: 3   MAX. TIME: 1 HR

Note: *All questions are compulsory.*

1.
   a. Give two circumstances where you might recommend against software reuse?
   b. Explain why adaptors are usually needed when systems are constructed by integrating COTS products.
   [1 + 2]

2.
   a. Suggest two important types of application that are unlikely to make use of a service-oriented approach.
   b. Explain why design conflicts might arise when designing an architecture for which both availability and security requirements are the most important non-functional requirements.
   [1 + 2]

3.
   a. List one example each for transaction processing and language processing systems.
   b. Give two advantages and two disadvantages of decentralized and semi-centralized peer-to-peer architectures.
   [1 + 2]

4.
   a. Identify possible stimuli and the expected responses for a system that controls a home refrigerator or a domestic washing machine.
   b. The XP planning game is based around the notion of planning to implement the stories that represent the system requirements. Explain the potential problems with this approach?
   [1 + 2]

5. Design process architecture for an environmental monitoring system that collects data from a set of air quality sensors situated around a city [3]