



Reg. No. :

Name :

Sixth Semester B.Tech. Degree Examination, June 2018 .
(2008 Scheme)
08.603 : SOFTWARE ARCHITECTURE (F)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

(10×4=40 Marks)

1. Why is software architecture important ?
2. Briefly explain UML.
3. What is meant by aggregation and generalization ?
4. What are the various design goals ?
5. What is micro architecture pattern ?
6. Briefly write about various design challenges ?
7. What is the use of delegation and recursion ?
8. What are the parts of a quality attribute scenario ?
9. How do you detect interface mismatches in software design ?
10. Explain the relationship of tactics to architectural patterns.



PART – B

Answer **all** questions. **Each** question carries **20** marks.

Module – I

11. a) Prepare an activity diagram for computing a supermarket bill. There should be a charge for each delivered item. The total amount should be subject to tax and service charge of 16% for groups of six or more. Any coupons charge submitted by the customer is subtracted from bill. **10**
- b) Explain activity model. What are the steps involved ? **10**

OR

12. a) Explain about links and associations. **8**
- b) Draw class diagram for the following problem : In a university course :
- Some instructors are professors, while others have job title tutor.
 - Departments offer many courses, but a course may be offered by > 1 department.
 - Courses are taught by instructors, who may teach up to three courses.
 - Instructors are assigned to one (or more) departments.
 - One instructor also serves a department head. **12**

Module – II

13. What are all the various categories of design patterns ? Explain in detail. **20**

OR

14. Explain the typical design trade-offs in detail. **20**

Module – III

15. a) Explain the significance of security tactics in software design. **10**
- b) What is meant by software architecture documentation ? **10**

OR

16. a) Explain testability in detail. **10**
- b) Discuss about usability tactics in detail. **10**
-