(Pages : 2) **5832**

Reg. No. : .....

Name : .....

Eighth Semester B.Tech. Degree Examination, October 2014
(2008 Scheme)
08.805 (2) : SOFTWARE ARCHITECTURE (Elective – III) (R)

Time: 3 Hours Max. Marks: 100

PART – A

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

1. Describe the various software design levels.
2. Define the following with an example :
   i) Controlled variable
   ii) Set point
   iii) Open loop system
   iv) Feedback control system.
3. Write a short note on data abstraction and object-oriented organization.
4. Mention the classes of notations used in describing software architecture.
5. Differentiate between implementation and interaction.
6. Briefly discuss the observations about environments in architectural design.
7. List the various properties of an architectural style.
8. Mention the features of WRIGHT model for architectural description.
9. Discuss the benefits of a design vocabulary.
10. Write short notes on :
    i) Configuration ii) Abstraction
    iii) Heterogeneity iv) Analysis. **(10×4=40 Marks)**

P.T.O.

PART – B

Answer **any one full** question from **each** Module. **Each** question carries **20** marks.

Module – I

11. a) Describe the features of pipes and filter systems. **10**

    b) Write the context, problem and solution part of mobile Robotics system using a layered architecture. **10**

OR

12. a) Briefly explain the repository style of architecture and interpreters organization. **10**

    b) Explain how a control loop paradigm is applied to cruise control. **10**

Module – II

13. a) Briefly explain how to formalize the architectural style in the context of pipe and filter architectural style. **10**

    b) Explain any two statistical analysis techniques used for analyzing design with a quantified design space. **10**

OR

14. Explain the shared information system evolution pattern in the area of data integration. **20**

Module – III

15. a) Explain any one model for architectural description. **10**

    b) Explain the various design decisions in implicit invocation systems. **10**

OR

16. Explain the model of system configuration using First-class connectors. **20**

(3×20=60 Marks)