[4658] – 602

Seat No.	

T.E. (Information Technology) (Semester – I) Examination, 2014
SOFTWARE ENGINEERING
(2012 Course)

Time : 3 Hours Max. Marks : 70

Instructions *: 1) Answer Q.* ***1*** *or Q.* ***2****, Q.* ***3*** *or Q.* ***4****, Q.* ***5*** *or Q.* ***6****, Q.* ***7*** *or Q.* ***8****, Q.* ***9*** *or Q.* ***10****.*
2) ***Neat*** *diagrams must be drawn* ***wherever*** *necessary.*
3) Figures to the ***right*** *side indicate* ***full*** *marks.*
4) Assume suitable data if ***necessary****.*

1. a) Define software . Compare software and hardware based on their failure curves. **5**
   b) Software engineering process framework activities are complemented by which umbrella activities ? How do process models differ from one another ? **5**

OR

2. a) Discuss agility principles used in agile software development. **5**
   b) Compare scripted testing verses exploratory testing. **5**
3. a) Describe the IEEE template for eliciting software requirement specifications. What information is produced as a consequence of requirements gathering ? **5**
   b) What do you need to know in order to develop an effective use case ? Describe a standard use case documentation template. **5**

OR

4. a) What are different approaches or elements of a requirement analysis model ? **5**
   b) What is the INVEST model of agile requirements gathering ? **5**
5. a) What are the software design quality attributes and quality guidelines ? **8**
   b) Explain any two software architectural styles. **8**

OR

6. a) Give a brief overview of important software design concepts that span both traditional and object-oriented software development. **12**
   b) Why is software architecture important ? **4**
7. a) Explain the Seeheim model of human-computer dialog management. **8**
   b) How do you deal with different stereotypes of users in information gathering phase of user-centered design ? **8**

OR

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8. a) Explain mechanisms applied in user interface design for fulfilling Theo Mandel's three golden rules. **12**

   b) What is Fitt's Law ? How is it used in UI design ? **4**

9. a) Explain the cleanroom process model. **10**

   b) How do we certify a software component during cleanroom testing ? **8**

OR

10. Write short notes on following : **18**

   a) Elements of a Configuration Management System

   b) Test Driven Development Process

   c) Technology Evolution.

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