Software engineering MMS-III (University Exam) (I.T.)

QP Code : 26185

(3 Hours) **[Total marks : 60**

Software Engineering. 23-11-2015

N.B. 1. Q.1 is compulsory.
2. Attempt any four questions from remaining six questions.

Q.1 A company needs to develop a time management software for its executives. The software should let the executives register their daily appointment schedules. The information should be stored includes with whom meeting is arranged, venue, time, duration and purpose of the meeting. When a meeting involving many executives needs to be organized, the system should automatically find a common slot from the database of all executives. The system should inform all executives by e-mail about the meeting. If no common slot is available, TMS should help the secretary to rearrange the appointments of executives. Early morning the TMS should e-mail every executives his daily appointments. **20**

i. **Draw Context level diagram and DFD fragments for above mentioned system.**
ii. **Design input and output screens for TMS. (any 5)**

Q.2 Answer any two: **10**
(a) Explain spiral model. State its similarities with unified process model.
(b)Explain different documents generated during analysis phase.
(c) Write a note on: Software Metrics

Q.3 Answer any two: **10**
(a) Write a short note on output designing. Give example of each type of report which can be used as output of a system
(b) Write a note on White Box testing.
(c) What are the basic principles of software project scheduling? Explain.

Q.4 (a) Differentiate between problem based estimation and process based estimation. **05**
(b) Explain why prototyping model is best suitable when requirements are unknown.
(c) Compare and contrast between bugs and failures.

Q.5 Answer any two: **10**
(a) Explain COCOMO2. State and justify for which types of Softwares COCOMO2 is applicable.
(b) Explain different types of GUI and advanced controls used for input screens.
(c) By giving appropriate explain Extreme programming (XP)

Q.6 Answer any two: **10**
(a) Explain testing principles. Also state attributes of good test.
(b) Explain the use of FTR in software quality assurance.
(c) What do you understand by Software Quality Measurement technique?

Q.7 Answer any two: **10**
(a) Explain with example how measures, metrics and indicators are measured.
(b) Explain the techniques to measure size of software.
(c) Justify the statement: Software testing is costly and time consuming activity.

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