B.TECH SEM – VI (2007 COURSE) (COMPUTER ENGG.) :

WINTER - 2017

SUBJECT : SOFTWARE ANALYSIS AND DESIGN

Day : **Tuesday** Time : **10.00 AM TO 01.00 PM**

Date : **21/11/2017** **W-2017-2505** Max. Marks : **80**

N. B. :

1) **Q. No. 1** and **Q.No.5** are **COMPULSORY**. Out of the remaining attempt **Any TWO** questions from each section.
2) Answers to both the section should be written in **SEPARATE** answer book.
3) Figures to the right indicate **FULL** marks.
4) Assume suitable data if necessary.

SECTION - I

Q.1 **a)** Explain why incremental development is the most effective approach for developing business software system. Why is this model less appropriate for real time system engineering? Explain. **(05)**

b) Describe the difference between "Known risks" and "Predictable risks". **(05)**

c) What is feasibility study? Describe the various types of feasibility study. **(04)**

Q.2 **a)** Define CASE tools. Elaborate on the various classifications of CASE tools. **(07)**

b) Suggest the most appropriate generic software process model that might be used as a basis for managing the development of 'An E-mail service system'. **(06)**

Q.3 **a)** Explain why the process of project planning is iterative and why a plan must be continually reviewed during a software project. **(07)**

b) Define Software risks. Comment on Risk Mitigation, Monitoring and Management with the help of example. **(06)**

Q.4 **a)** Describe the main activities in the Software design process and the outputs of these activities. **(07)**

b) Business process engineering strives to define 'data' and 'application architecture' as well as 'technology infrastructure'. Describe what each of these terms means and provide an example. **(06)**

P.T.O.

SECTION – II

Q.5 **a)** Discuss the various communication techniques used in requirement engineering. Describe FAST technique. **(05)**

b) Define testing. Compare the various types of Software testing methods. **(05)**

c) Define SQA. Describe the overall processes and tasks in SQA. **(04)**

Q.6 **a)** What is Data modeling? Design an E-R diagram for online E-publishing system. **(07)**

b) What do you understand by structural analysis? Elaborate the mechanics of structural analysis. **(06)**

Q.7 **a)** Describe the strategic issues in testing a software. **(07)**

b) Illustrate interface design, procedural design and graphical and tabular design notations with the help of an example. **(06)**

Q.8 **a)** Define baselines. How change control is different from version control. Explain? **(07)**

b) Design a interaction diagram for the given system. 'Web Search Engine'. **(06)**

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