GUJARAT TECHNOLOGICAL UNIVERSITY

M.E -IIst SEMESTER-EXAMINATION - JULY- 2012

Subject code: 725302 Date: 09/07/2012

Subject Name: System Development Methodology

Time: 10:30 am – 13:00 pm Total Marks: 70

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.
- Q.1 (a) Explain the importance of making correct estimates in project management.
 - **(b)** List and Explain principal activities of a modern quality system?
- Q.2 (a) Explain relative merits of ISO 9001 certification and the SEI CMM based quality 07 assessment.

(b) Using following set of tasks and task relationships:

Task	Duration	Waits for
T1	6	
T2	9	T1
T3	7	T2
T4	11	T1
T5	3	
T6	6	T5
T7	3	T4,T6
T8	6	T5
T9	3	T4,T6
T10	11	T8,T9
T11	4	T3,T7,T10

- 1. Draw GANTT and PERT Charts for these tasks.
- 2. Compute earliest & latest start times for each task?
- 3. Compute earliest completion time for the project?

OR

- (b) Using white box testing strategies design a test suite for the algorithm of binary 07 search.
- Q.3 (a) List and Explain main components of an organization's information systems strategy? 07
 - (b) Using black box testing strategies design a test suite for the program that accepts two strings and checks if the first string is a substring of the second string and display the number of times the first string occurs in the second string..

OK

- Q.3 (b) Discuss how the reliability changes over the lifetime of a software product and a 07 hardware product.
- **Q.4** (a) Why must the application plan be integrated with equipment acquisition? 07
 - (b) Using example explain difference between process metrics and product metrics.

OR

- **Q.4** (a) Describe why you need a strategic plan?
- Q.4 (b) Using white box testing strategies design a test suite for the algorithm of sorting . 07
- Q.5 (a) Design the black box test suite for a program that accepts up to 10 simultaneous liner 07 equations in up to 10 independent variables and displays the solution.
 - (b) Explain how SCCS or RCS can be used to efficiently manage the configuration of 07 source code.

OR

Q.5 (b) Explain roles walkthrough

07

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