



DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
FIRST SESSIONAL EXAMINATION
SUBJECT: (CT616) SOFTWARE ENGINEERING

Examination	: B.TECH - Semester - VI	Seat No.	:
Date	: 19/01/2016	Day	: Tuesday
Time	: 11:00 to 12:15	Max. Marks	: 36

INSTRUCTIONS:

1. Figures to the right indicate maximum marks for that question.
 2. The symbols used carry their usual meanings.
 3. Assume suitable data, if required & mention them clearly.
 4. Draw neat sketches wherever necessary.
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Q.1 Do as directed.

- (a) Describe why the spiral model is known as meta model. [2]
- (b) What are the important activities carried out in the feasibility analysis phase? Give an appropriate example. [2]
- (c) LOC is suitable for project cost estimation. True / False Justify [2]
- (d) Name a few of the non-functional requirements for ATM system. [2]
- (e) Why is the SRS document also known as the black-box specification of a system? [2]
- (f) Which process model you follow for developing software for following applications? [2]
 1. A new graphics editor.
 2. Software that would provide, monitor and control cellular communication among its subscribers using a set of revolving satellites.

Q.2 Attempt *Any TWO* of the following questions. [12]

- (a) Compare the pros and cons of the life cycle models with appropriate examples.
- (b) Using the algebraic specification method, formally specify a string supporting the following operations: Append, add, create, is-equal, is-empty.
- (c) Suppose you are developing a software product in the organic mode. You have estimated the size of the product to be about 1,00,000 lines of code. Compute the nominal effort and the development time. Compare all COCOMO models.

Q.3 (a) Write the SRS for a Payroll management System(As given below): [6]

The system maintains the information of employees, calculates the gross salary and net salary(deduction of IT and PF from gross salary), update the record according to a salary and print the check of net salary.

- (b) Prepare the decision table for the system given below. [6]

OR

Q.3 (a) The following are the requirements for an on-line examination system: [6]

This Web Application provides facility to conduct online examination world wide. It saves time as it allows number of students to give the exam at a time and displays the results as the test gets over, so no need to wait for the result. It is automatically generated by the server. Administrator has a privilege to create, modify and delete the test papers and its particular questions. User can register, login and give the test with his specific id, and can see the results as well.

Write the SRS for the same.

- (b) Draw the decision tree for the system given above. [6]