53 (CS 602) SWEN

2016

SOFTWARE ENGINEERING

Paper : CS 602

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1. (a) Discuss about the classical waterfall model for software development.

    (b) Find out the problems of the above mentioned model.

    (c) Suggest any other model which can overcome the problems.   10+5+5

2. Design a suitable SRS for the library of your college.   20

3. (a) Consider the book-issue scheme of library.

Why SRS cannot represent the book-issue scheme ?

Use any suitable technique to represent.

(b) Construct a DFD for the following expression $S = -A + \left(B^2 - C^2 + D^2\right)/3$

10+10

4. (a) Consider the following table :

Task No.	Time (days)
T_1	10
T_2	5
T_3	15
T_4	7
T_5	8
T_6	20
T_7	10
T_8	12

The precedence of the above mentioned Tasks are

$$T_1 \leq \{T_2, T_3\}$$
$$\{T_2, T_3\} \leq T_4$$
$$T_4 \leq \{T_5, T_6, T_7\}$$
$$T_7 \leq T_8$$

Find out the critical path for the above mentioned tasks.

[*N.B.* $T_i \leq T_j$ means T_j will start after the end of T_i]

(b) Briefly discuss about Halstead metric.

15+5

5. (a) Discuss about the different standards should be adopted during coding.

(b) With example discuss on *any one* software testing technique.   10+10

6. Write short notes on :   5×4

(a) Function Point

(b) COCOMO

(c) SPMP

(d) Cyclomatic complexity.