Total Marks: 70

Time: 3 Hours

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 7 = 14

a.	Write two advantages of Waterfall model of Software life cycle.
b.	What do you mean by Requirement Gathering?
c.	What is Cyclomatic Complexity?
d.	What are the fundamentals of Testing? Explain in brief.
e.	What is Project Planning and Control?
f.	Explain in brief about cost estimation.
g.	What is reusability in Software Engineering?

SECTION B

2. Attempt any *three* of the following: 7 x 3 = 21

a.	Explain the need of Software life cycle models in Software Engineering.
b.	Why do we use Validation and Verification in Quality Assurance Plans?
c.	Explain in detail about DFD and Structure Chart.
d.	Explain the Constructive Cost Model (COCOMO) used for determining the software cost estimate.
e.	What do you mean by Software Maintenance? Explain in detail.

SECTION C

3. Attempt any *one* part of the following: 7 x 1 = 7

(a)	What are the major differences between System Engineering and Software Engineering?
(b)	Explain Water fall Model. What are the problems that are sometimes encountered when the waterfall model is applied?

4. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Explain the Software requirement Analysis and Specification. Discuss various methods for Requirement gathering.
(b)	Explain the Requirement Elicitation and Analysis Process.

5. Attempt any *one* part of the following: 7 x 1 = 7

(a)	What is meant by Modular Design? When and how should a modular design be implemented?
(b)	What is the difference between Decision Table and Decision Tree?

6. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Discuss White Box techniques in detail. .
(b)	What is the process of Software Testing? Explain the different testing methods illustrating their importance.

7. Attempt any *one* part of the following: 7 x 1 = 7

(a)	What do you mean by Function Point Analysis? Mention the features of it.
(b)	Discuss the concept of Software Maintenance Process. .