Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER– VI (New) EXAMINATION – WINTER 2019
Subject Code: 2160701   **Date: 04/12/2019**
Subject Name: Software Engineering
Time: 02:30 PM TO 05:00 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)**	Provide three examples of software projects that would be amenable to the waterfall model. Be specific.	**03**
	(b)	Compare Product and Process.	**04**
	(c)	Explain Waterfall Model with suitable diagram.	**07**
Q.2	**(a)**	Enlist and explain different types of maintenance.	**03**
	(b)	List five functional requirement of Library management System.	**04**
	(c)	Explain Project Scheduling Process. Also Explain Gantt Chart in detail.	**07**
		OR	
	(c)	Explain Extreme Programming (XP) in detail.	**07**
Q.3	**(a)**	State difference between procedural design and object oriented design.	**03**
	(b)	Explain RMMM.	**04**
	(c)	Explain software matrics used for software cost estimation.	**07**
		OR	
Q.3	**(a)**	Compare coupling and cohesion.	**03**
	(b)	What is architectural design? Enlist different style and patterns of architecture.	**04**
	(c)	What is the importance of User Interface? Explain User Interface design rules.	**07**
Q.4	**(a)**	Draw E-R Diagram for Online shopping System.	**03**
	(b)	Differentiate software Engineering and Reverse Engineering.	**04**
	(c)	Consider the program given below	**07**

```
 void main()
{
   int i,j,k;
   readln (i,j,k);
   if ( ( i < j) || ( i > k) )
   {
     Writeln ("then part");
     if (j < k)
     writeln ("j less then k");
     else writeln  ( " j not less then k");
   }
     else writeln( "else Part");
}
```

(i) Draw the flow graph.
(ii) Determine the cyclomatic complexity.
(iii) Arrive at all the independent paths.

OR

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Q.4	(a)	Explain concept of test case.	03
	(b)	Explain Formal Technical Review	04
	(c)	What are the different testing strategies? Explain any one with suitable example.	07
Q.5	(a)	Write short note on Six Sigma standard.	03
	(b)	Explain Version and Change Control Management.	04
	(c)	Explain Software as a Service (SaaS). Give its applications.	07

OR

Q.5	(a)	Explain Client/Server Software Engineering.	03
	(b)	Write short note on Forward Engineering.	04
	(c)	Write a short note on: CASE.	07

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