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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