

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 matrices 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

- 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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