

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2160701

Date: 27/04/2017

Subject Name: Software Engineering

Time: 10:30 AM to 01:00 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 Answer the following 14**
- 1 The most important feature of spiral model is
A) requirement analysis B) risk management.
C) quality management D) configuration management.
 - 2 “Consider a system where, a heat sensor detects an intrusion and alerts the security company.” What kind of a requirement the system is providing ?
A) Functional B) Non Functional C) Non of the above
 - 3 Agility is defined as the ability of a project team to respond rapidly to a change.(TRUE/FALSE)
 - 4 In function point analysis, value adjustment factors used to rate the system are
A) 10 B) 14 C) 20 D) 12
 - 5 Which one is not a risk management activity?
A) Risk identification B) Risk generation
C) Risk Monitoring D) Risk Mitigation
 - 6 SRS is also known as _____ testing.
 - 7 What DFD notation is represented by the Rectangle?
A) Data flow B) Data Store
C) Process D) None of the mentioned
 - 8 Alpha and Beta Testing are forms of _____ testing.
 - 9 _____ is a collection of software engineering work tasks, milestones, and deliverable that must be accomplished to complete a particular project.
 - 10 _____ tools extract data, architectural, and procedural design information from an existing program.
 - 11 Which web app attribute is defined by the statement:”A large number of users may access the WebApp at one time”?
 - 12 What combines procedures and tools to manage different versions of configuration objects that are created during the software process?
 - 13 SaaS means _____.
 - 14 Which of the following is not a direct measure of SE process?
A) Efficiency B) Cost
C) Effort Applied D) All of the mentioned
- Q.2 (a) Explain Software Engineering as a Layered Technology. 03**
(b) Compare Prototype and RAD Process Model. 04
(c) Explain Scrum with merits and demerits. 07

OR

- (c) Enlist characteristic of SRS. Write a SRS for college management system. **07**
- Q.3** (a) Compute function point value for a project with the following domain characteristics: **03**
No. of I/P = 30
No. of O/P = 62
No. of user Inquiries = 24
No. of files = 8
No. of external interfaces = 2
Assume that all the complexity adjustment values are average.
- (b) What is architectural design? Enlist different style and patterns of architecture. **04**
- (c) Explain different design Concepts in details. **07**
- OR**
- Q.3** (a) Describe golden rules of User Interface Design. **03**
(b) Explain RMMM. **04**
(c) Define Coupling and Cohesion. What is the difference between cohesion and coupling. **07**
- Q.4** (a) Explain Formal Technical Review. **03**
(b) Compare: Quality Control Vs. Quality Assurance. **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) List quality standards. Explain any one. **03**  
(b) Difference between reverse engineering and forward engineering. **04**  
(c) List set of guidelines for BVA. Also Explain merits and demerits of BVA. **07**
- Q.5** (a) Enlist and explain different types of maintenance. **03**  
(b) What is mobile testing? Mention the challenges in mobile testing. **04**  
(c) Explain Client/Server Software Engineering. **07**
- OR**
- Q.5** (a) The WebE process model. **03**  
(b) Describe CASE building blocks. **04**  
(c) Explain SCM process in details. **07**

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