



**DH-1743**

**M. Sc. (I.T.) (Sem. VII) Examination**  
**March/April – 2016**  
**Software Engineering**

Time : 3 Hours]

[Total Marks : 70

**Instruction :**

નીચે દર્શાવેલ નિશાનીયાળી વિગતો ઉત્તરવહી પર અવસ્થા લખવી.  
Fillup strictly the details of signs on your answer book.

Name of the Examination : **M. SC. (I.T.) (SEM. VII)**

Name of the Subject : **SOFTWARE ENGINEERING**

Subject Code No. : **1 7 4 3** Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

**Q.1 [A] Answer the following questions in brief [Any Five]**

[10]

- During the design and construction phase of 1 project, 90 errors were found and 20 errors were found after deployment of the project. Find the DRE for this project.
- What is the use of fork and join in activity diagram?
- The project is scheduled for 5 months for the budget of 1,50,000 Rs. At the end of 4<sup>th</sup> month the project is 70% complete and the cost occurred till now is 1,40,000 Rs. Find PV and SV
- What is customer related risk?
- What is the role of verification and validation in improving software quality?
- What is the difference between composition and aggregation?

**Q.1 [B] Draw the use case diagram for online real estate information system like [www.magicbricks.com] or [www.99acres.com]. Consider that you are drawing the use case for the actor broker (Property Agent). Draw the activity diagram for search property activity**

[8]

**Q.2 Answer the following questions in detail [Any Three]**

[18]

- What type of role walkthrough and inspection is playing in SQA? What is the difference between walkthrough and inspection?
- What is the software design pattern? Explain façade design pattern
- Explain version control and repository process of SCM in detail.
- Your company is assigned with a new project of online shopping portal. Presently the company is having 1 project leader and 3 fresher joined as programmer. Make assumptions and identify 2 risks from each category. Create the risk projection table.

**Q.3 Answer the following questions [Any Six]****[18]**

1. What is the load testing of the web site?
2. What is OTS type of component?
3. How to represent multiplicity in class diagram?
4. What are the different tools available for project planning and scheduling?
5. Why software deadlines are unrealistic? What are the solutions to unrealistic deadlines?
6. Explain the attributes of web-based applications in brief
7. Define the CMMI level 4 and 5?

Q.4 [A] Calculate the raw FP, FP Estimate, estimated cost and estimated effort for a project with the following information domain characteristics. **[8]**

Information Domain Values	Counts	Weighting Factors
No. of inputs	10	4
No. of outputs	16	4
No. of inquiries	14	3
No. of files	8	3
No. of external interfaces	7	3

The CAV values are Significant for all the factors. The FP/PM is 30, Salary is Rs 17000 per month.

**Q.4 [B] Answer any TWO questions****[8]**

1. Explain types of SE resources
  2. Explain basic principles of project scheduling
  3. Draw the class diagram for online attendance system?
-