* A - 1 7 4 3 *

A-1743

M. Sc. (I.T.) (Sem. VII) Examination

March/April – 2015

Software Engineering

Time : **3** Hours] [Total Marks : **70**

Instruction :

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય 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

1 (A) Answer the following questions in brief (Any Five) **10**

1. The project is scheduled for 4 months for the budget of 80000 Rs. At the end of 3rd month project is 60% complete and the cost occurred till now is 70000. Find PV and SV
2. Why software deadlines are unrealistic?
3. In the web site project, 100 errors were found during the before deployment and 20 defects were found after deployment of the project. Find the DRE for this project.
4. How to describe the use cases?
5. What is NOP? How to count object points?
6. What are the advantages of design pattern?

(B) Consider the scenario for online examination where students can give the online exam after paying stipulated fees for a particular course. The faculties can set questions but assessment is done by the system only. Draw the use case diagrams with necessary assumptions. Create the sequence diagram for the exam completion process. **8**

2 Answer the following questions in detail : (Any Three) **18**

1. What is software quality? What are the important points of SQA? Explain 6 sigma concept.
2. Explain the types of SE resources in detail.

3. Explain the attributes of web-based applications. For creation of social networking web site like linkedin what other attributes are desirable?
4. What is design pattern? Explain structural design pattern.

3 Answer the following questions : [Any Six] **18**

1. What is PNR curve? What is the use of PNR curve?
2. The risk probability is 70%. Suppose, there are 50 reusable s/w components to be planned and only 70% of those can be used. 1 component = 200 LOC and 1 LOC = 500 Rs. Find the overall risk impact and count the RE (Risk Exposure)
3. Explain any one tool of project scheduling and tracking
4. What are the types of events? Identify the exceptional flow of event in withdrawal process of ATM system
5. What is baseline? How to create the baseline?
6. Which strategy is desirable when the risks of technology updates are not accepted by the employees? How to overcome it?
7. What is difference between LOC based and FP based software matrices?

4 (A) Calculate the raw FP and final FP estimation for a new development project with the following information domain characteristics. The CAV for all the 14 factors are significant. What is the effort and cost estimation if the rate is 20 FP/PM and the cost for one month development is Rs. 15000/- **8**

Information Domain	**Value Counts**	**Weighting Factors**
Total User inputs	15	3
Total User outputs	17	3
No. of inquiries	13	2
No. of files	15	3
No. of external interfaces	14	3

(B) Answer the following questions in detail : [Any Two] **8**

1. Explain SCM repositories functions and tools
2. What is class diagram? Draw the class diagram for railway reservation system
3. What is RMMM Plan? Explain with example in brief