P-1696

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

March/April – 2014

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. 7)**

Name of the Subject :

☛ **SOFTWARE ENGINEERING**

☛ Subject Code No. : | 1 | 6 | 9 | 6 | ☛ Section No. (1, 2,......) : **Nil**

Seat No. :

Student's Signature

1 (a) Compute new object point and productivity rate with **6** project of ATM system.

No of Screens = 15

No of Reports = 13

3GL Components = 20

Complexity weights for all of the above are 3

50% reuse of the components

20 programmers working on the project

(b) Answer the following questions in brief : (any six) **12**

(i) Explain any 2 object oriented s/w development matrices?

(ii) What is the use of <<include>> and <<extend>>?

(iii) What is BAC? How to find the value of it?

(iv) In DRE, which value is good indication: 1, 0 or less than 1? Why?

(v) Unpredictable risks are the joker in the deck. Justify this

(vi) What are the duties of FTR team?

(vii) How formal methods help in the development of the software?

2 Answer the following questions in detail : (any three) **18**

(i) Explain risk components and drivers

(ii) Explain change control process of SCM in detail

(iii) What is class diagram? Explain role and multiplicity of association concept with example

(iv) Differentiate structure system analysis and design and OOAD. In the current world of web development which methodology is best suitable? Why?

3   Answer the following questions : (any six)   18
     (i)   Draw the state transition diagram for printing activity
     (ii)   What is component diagram? What are the notations used to represent component diagram?
     (iii)   Explain the attributes of web-based applications
     (iv)   What is SPI and CPI? How to calculate it?
     (v)   What is 40-20-40 distribution?
     (vi)   Formal method .
     (vii)   What are the duties of FTR team?

4   (a)   One online shop sells cards, gifts and other materials   8 online. To purchase the item customer have to open the account and after selection the items to shopping cart payment process will be completed. Create the relevant sequence diagram and use case diagram for this scenario with your assumptions.

     (b)   Attempt any two questions :   8
        (i)   Explain the major categories of the SE resources in detail.
        (ii)   Describe the framework for Web Engineering.
        (iii)   What is Raw FP? How to count raw FP?

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