BACHELOR IN COMPUTER APPLICATIONS

Term-End Examination

December, 2011

CS-70 : INTRODUCTION TO SOFTWARE ENGINEERING

Time : 3 hours   *Maximum Marks : 75*

Note : Question number 1 is *compulsory*. Answer **any three** questions from the rest.

1. A General Hospital consists of a number of specialized wards (Such as Maternity, Paediatry, Oncology etc). Each ward hosts a number of patients, who were admitted on the recommendation by their own specialist doctor and confirmed by a Sr. Consultant employed by the Hospital. On admission , the personal details of every patient are recorded. A seperate register is to be held to store information of the tests undertaken and the results of a prescribed treatment. A number of tests may be conducted for each patient. Each patient is assigned to one leading consultant but may be examined by another doctor , if required. Doctors are specialists

in some branch of medicine and may be leading consultants for a number of patients , not necessarily from the same ward.

(a) Design the DFD's upto second level.   7

(b) Prepare SRS document. List assumptions, if any.   5

(c) Design an ER diagram. List all the entities, their attributes , cardinality , key constraints etc.   7

(d) Draw PERT chart for the problem and show the critical path.   5

(e) Specify the s/w development life cycle model for the given specifications. Also, explain briefly about the phases of the model.   6

2. (a) What do you mean by Function Point Analysis ? Mention its features.   8

   (b) Describe cocomo model briefly.   7

3. (a) Explain s/w crisis from programmer's point of view.   5

   (b) With the help of an example application , explain the prototyping model.   10

4. (a) Identify and elaborate all the risk factors in   8
   a s/w project.

   (b) What are the 3P's of S/W project   7
   management ? Explain the factors that
   should be considered when planning the
   structure of a team.

5. Write short notes on :   3x5=15
   (a) Software Reliability
   (b) Regression testing
   (c) DEFT case tools

―――――――