Q. P. Code: 26255

(3 Hours)   [Total Marks: 80]

N.B. (1) Question No.1 is **compulsory**, solve any three questions from **remaining** questions.
(2) All questions carry **equal** marks.
(3) Specify your answers with neat **diagrams** and **examples** wherever **necessary**.

Q1 (a) Define Software and explain its characteristics   05
    (b) Explain layered structure of Software Engineering   05
    (c) What is QFD   05
    (d) What are the limitations of LOC metric to measure size of the software   05

Q2 (a) What is Cleanroom Software Engineering   10
    (b) Explain different phases of Unified Process   10

Q3   For an Organization with employee strength of 5000 employees having 20   20
         branches across world, Document Management system is to be developed. On an
         average 20 thousand documents are uploaded every day by its employees. The
         employee can upload the document, remove the document and online edit the
         uploaded document. Using Machine Learning the uploaded documents is to be
         categorized and stored in relevant folders on the servers. The system should
         provide employee registration and login facility. The system should analyze the
         uploaded document and notify the administrator regarding objectionable
         contents. The administrator can remove the objectionable document. The warning
         message to the employee who uploaded the objectionable document should be
         send. The daily report of uploaded and deleted document is to be prepared. As per
         requirement required documents can be downloaded from the system.

         Draw Use Case, Activity Diagram, Class and Deployment Diagram for the given
         scenario

Q4 (a) Explain guidelines for good design. What are quality attributes?   10
    (b) Explain design concepts   10

Q5 (a) Explain different testing strategies   10
    (b) Draw CFG for the PDL and find cyclomatic complexity   10
         s1;
         s2;
         if(c1 or c2 and c3) s3; else s4;
         s5;
         do s6; while(c4);
         s7;

Q6 (a) Identify two risks for your ASE paper and prepare RMMM plan   10
    (b) What is software reuse? How it affects productivity and quality of software   10
                          ****

D22DB1B264D0DADCC265B273A91CF19F