B. Tech Degree V Semester Examination, November 2008

CS/IT 503 SOFTWARE ENGINEERING

(2006 Scheme)

Time: 3 Hours

Maximum Marks: 100

PART A

(Answer <u>ALL</u> questions (All questions carry <u>EQUAL</u> marks)

 $(8 \times 5 = 40)$

- I. (a) What do you understand by the term "life cycle model" of software development? Why is it important to adhere to a life cycle model during development of a large software product?
 - (b) Briefly discuss the five desirable characteristics of a good software requirement specification (SRS) document.
 - (c) Differentiate between corrective, preventive and perfective maintenance in the context of software maintenance.
 - (d) Differentiate between Structured Analysis and Structured Design.
 - (e) What do you understand by the term system testing? What are the different types of system testing that are usually performed on software products?
 - (f) What are the important activities carried out during the feasibility study phase?
 - (g) Discuss the important drawbacks of using LOC as a metric to estimate project size.
 - (h) List the important activities software project managers perform during project planning.

PART B

(All questions carry **EQUAL** marks)

 $(4 \times 15 = 60)$

II. Explain the software life cycle using Waterfall. Spiral and Prototype models. Discuss the pros and cons of each module.

OR

- III. Discuss requirement analysis. Using suitable examples, explain the different types of requirements problems that should be identified and resolved during the requirement analysis phase.
- IV. Explain the desirable characteristics of a GOOD user interface

OR

- V. Discuss the fundamental software design concepts in detail.
- VI. Discuss Software Quality and the quality factors associated with Software products.

 Briefly discuss different quality standards applicable to software industry and their relative merits.

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- VII. Discuss the importance of testing in the development of software products and explain the different levels of testing the product goes through.
- VIII. Discuss in detail the COCOMO model of software project cost estimation technique.

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IX. Discuss CASE and tools and CASE environment. What are the different types of CASE tools used in different phases of software development.

