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Name.....

Reg. No.....

FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION DECEMBER 2008

CS 04 501/IT 04 501—SOFTWARE ENGINEERING

(2004 admissions)

Time : Three Hours

Maximum : 100 Marks

Part A

I. (a) Write notes on relationship of software engineering with operating system.

(b) What are the qualities of requirements of Information Systems ?

(c) How to design module interfaces ? Give example.

(d) How anomalies are handled during software design ?

(e) Explain how syntax-directed techniques can be applied to programs that are not language processors.

(f) What is structured analysis/structured design ? Explain the tools used in it in brief.

(g) What are the main activities involved in management functions ? Explain them in brief.

(h) What are editors ? What role it plays as a software development tool ?

(8 × 5 = 40 marks)

Part B

II. (a) Describe in detail the most important qualities of software products and processes.

Or

(b) Discuss the principles that may be useful in software development and show how they are related to the principles of software engineering.

III. (a) Using Finite State Machines, describe a lighting system consisting of one lamp and two buttons. If the lamp is off, pushing either button causes the lamp to switch on and conversely.

Or

(b) Discuss in detail the key problems to be addressed in concurrent software design.

IV. (a) Discuss in detail how testing is performed in concurrent and Real Time Systems and issues to be addressed in testing these types of systems.

Or

(b) Describe in detail the evolutionary model of software production process in detail with example.

V. (a) What are the various metrics for measuring software productivity ? Explain them in detail.

Or

(b) Discuss in detail the social and ethical responsibilities to be considered in software development.

[4 × 15 = 60 marks]