PC-133/AK

O-2/2041

SOFTWARE ENGINEERING

Paper – MS(A)-213

IInd Year (Annual)

Time : Three Hours] [Maximum Marks : 80

Note : Attempt *five* questions in all, selecting at least *two* questions each from Section A and B. Section C is compulsory.

SECTION – A

I. Define the term "Software Engineering". What are its characteristics? What are the goals of software engineering? Explain the major differences between software engineering and other traditional engineering. 16

II. Elaborate the waterfall model giving its merits and demerits. 16

III. What do you mean by Software Requirement Specifications (SRS)? What is its need? Discuss various characteristics of SRS. 16

IV. Give the characteristics of a good software design. What causes increased productivity when object oriented paradigm is used? 16

SECTION – B

V. Differentiate between software verification and validation. List various methods of code verification. Explain any *one* method in detail. 16

VI. What is the difference between functional testing and structural testing? Discuss any *two* methods of functional testing in detail. 16

VII. What do you mean by software maintenance? What are various types of software maintenance? Why software maintenance is considered most important? Explain. 16

VIII. Discuss the following in detail :

(a) Automated Testing Tools. 8

(b) Reverse Engineering. 8

SECTION – C

IX. (a) What are the qualities of software? 2

(b) What do you mean by process modelling? 2

(c) What are varoius project planning activities? 2

(d) What is cohesion? 2

(e) What do you mean by cyclomatic complexity? 2

(f) What are the merits of using programming standards? 2

(g) What is forward engineering? 2

(h) What are various applications of CASE tools? 2