Paper : **MS-213**
Title of Paper : **Software Engineering** (SEM-III) K-9/2110
Time Allowed : **3 Hours**
Maximum Marks: 70 7440/N

Note: Candidates are required to attempt five questions in all selecting at least two questions each from sections A and B. Section C is compulsory.

SECTION A

Q1. 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. 10.5

Q2. Discuss the Spiral model of software development in detail giving its merits and demerits. 10.5

Q3. What are the central problems in Software requirement specification? What are the basic activities performed during the requirement phase? Discuss the characteristics of Software Requirement Specification. 10.5

Q4. Define term "Modularization". Why a system design with high cohesion and low coupling is desired? Discuss various types of cohesions in brief. 10.5

SECTION B

Q5. What do you mean by structured programming? Discuss various constructs of structured programming giving examples. Also give the advantages and disadvantages of structured programming. 10.5

Q6. What is software testing? Discuss the role of software testing during software life cycle and why it is so difficult? Why complete testing is impossible? Explain the boundary value analysis testing technique with the help of an example. 10.5

Q7. What is the difference between software development and software maintenance? Discuss the major problems in software maintenance. Discuss briefly about various tools and techniques used for software maintenance. 10.5

Q8. Discuss the following in detail

a) Software re-engineering 5.5
b) Building blocks for CASE 5.0

SECTION C

a) What are the drawbacks of waterfall model? 04
b) What is risk management? 04
c) What is meta data? How meta data is stored? 04
d) What is abstraction? 04
e) Differentiate between verification and validation. 04
f) What are the salient features of object oriented testing? 04
g) What is reverse engineering? 04