Q.1

a. List any two software Myths and explain them in short. (7 × 4)

b. Draw the diagram of RAD model.

c. Define cohesion and coupling as applied to software design.

d. State some advantages of spiral model, over other process models.

e. What is regression testing? When is this testing used?

f. Differentiate between software verification and software validation.

g. Briefly describe any two size-oriented metrics.

Q.2

a. Bring out the differences between evolutionary and throw-away prototyping. What type of prototyping is recommended for large system development? (10)

b. Describe any four key challenges facing software engineering. (4)

c. Suggest the most appropriate generic process model which might be used for the following:

(i) Automated University Accounting System.
(ii) An interactive Railway Information System.

Briefly explain why? (4)

Q.3

a. Explain what do you understand by functional and non functional requirements. Give suitable examples in each case. (8)

b. Give the general structure of a software requirement document and briefly explain each section. (10)

Q.4

a. Develop a set of use-cases that would serve as a basis for understanding the requirements for an ATM system. (6)
b. Draw a neat diagram to show the process flow for object oriented design. Briefly explain. (6)

c. What is data modelling? Explain. (6)

Q.5
a. With suitable example, Explain walkthroughs and inspection with respect to code review process. (8)

b. Write a brief note on following testing strategies – Unit, Integration, Validation & System Testing. (6)

c. Discuss any two approaches for debugging software. (4)

Q.6
a. What do you mean by Heuristic Estimation techniques? Briefly discuss the COCOMO Model of cost estimation. (10)

b. Why it is essential to use Project Scheduling? Discuss any method of Project Scheduling giving suitable example. (8)

Q.7
a. Explain Software Re-engineering and Reverse Engineering. (10)

b. Write a note on CASE tools and their relevance in software engineering. (8)