**Q.1**. (A) What is software architecture ? Give its importance.

(B) Explain data design at component level.

(C) Give architectural pattern and style used in design

(D) Explain in context architecture design and representing system.

**Q 2.** (A) Explain the working of Black box testing.

(B) Explain flow graph notation.

(C) Explain working of white box testing.

(D) Explain art of debugging in detail with its psychological parameters.

**Q.3** A) Explain the need of software architecture. 5

(B) Explain Data-flow architecture with its advantages and disadvantages. 5

(C) Write a short note on architectural pattern.

(D) What is the use of software architecture document ? How is the documentation done in the software architectural design ?

**Q.4** (A) Explain the various testing objectives in detail. 5

(B) List and explain the levels of testing. 5 OR

(C) What is structural testing ? Explain its advantages and disadvantages. 5

(D) Explain the debugging process using suitable diagram.

(a) Explain the role of the software architecture. 5

(b) What is archetypes ? What is the role of archetypes in architecture designing ? 5

OR (c) Explain Data Centered Architecture. 5

(d) What is data design ? Explain the purpose of data design.

**Q5.** (a) Explain software testing and testability. List the various characteristics of testability. 5

(b) Explain the different levels of testing.

(c) Explain the white-box testing with its advantages. 5

(d) What are the various debugging strategies ? Explain in brief

**Q.6** (a) What is Data Design ? Explain data design at the architectural level. 5

(b) Explain architectural patterns in detail. 5

OR (c) Explain data design at component level. 5

(d) Explain Archetypes in detail. 5

Q 7 .(a) Explain integration testing in the object oriented context. 5

(b) Write short note on Black Box testing. 5

OR (c) Write short notes on :

(i) Security testing

(ii) Stress testing.

(d) Explain debugging process in detail.