

CS/IT/PTCS 09 501—SOFTWARE ARCHITECTURE AND PROJECT MANAGEMENT OF THE PROJECT MANAGEMENT OF THE

Time: Three Hours

Maximum: 70 Marks

Part A

Answer all questions.

Each question carries 2 marks.

- 1. Define software architecture.
- 2. What do you mean by conceptual architectural view?
- 3. List some creational patterns.
- 4. What are template view and transform view?
- 5. Differentiate between Optimistic and Pessimistic offline lock.

 $(5 \times 2 = 10 \text{ marks})$

Part B

Answer any **four** questions. Each question carries 5 marks.

- 1. Explain execution and code architecture view in detail.
- 2. Write a note on:
 - (a) Abstract factory.
 - (b) Prototype.
- 3. Explain how Java session bean is used as a remote facade.
- 4. Write a brief note on patterns for concurrent objects.
- 5. What is a Ghost? With an example, explain how a ghost works.
- 6. Write the structure, participants and consequence of mediator pattern.

 $(4 \times 5 = 20 \text{ marks})$

Part C

Answer all questions.

Each question carries 10 marks.

1. Explain the IS 2000 architecture.

Or

2. Explain in detail conceptual and module architectural view.

Turn over

3. Write in detail how patterns are used in organising work.

Or

- 4. Explain any two structural patterns in detail.
- 5. Describe how patterns are used in managing concurrent objects.

Or

- 6. Explain in detail about the patterns for distributed computing.
- 7. Explain in detail about :
 - (i) Single-table inheritance.
 - (ii) Class-table inheritance.
 - (iii) Concrete-table inheritance.

Or

8. Explain with an example how two offline locks work.

 $(4 \times 10 = 40 \text{ marks})$