Bangladesh University

Department of Computer Science and Engineering

Final Term Examination, Summer Semester 2026

Course code: CSE 3206

Course Title: Software Engineering

Batch: 69 (Evening)

Time: 2 hours Total Marks: 40

[SET-A]

1. Explain the following concepts (Any Four) 5*4=20
   a. Comparison of these three types of Projects in COCOMO Model?
   b. Describe Project Scheduling?
   c. Describe advantage of modularization in software design?
   d. What is DFD? Describe Context Diagram with figure?
   e. Describe project estimation?

[SET-B]

[Answer any 2 questions out of 4]

A small startup company is planning to develop an **Online Bookstore System**. The objective of the system is to allow customers to browse and purchase books online. Additionally, the system will enable administrators to manage inventory and order processing.

Key Requirements:

1. **Customer Features:**
   - Search for books by title, author, or genre.
   - View book details (title, author, description, price).
   - Add books to the shopping cart.
   - Purchase books (by providing payment information).
   - Track orders (view order status).
2. **Admin Features:**
   - Manage book inventory (add, remove, update book details).
   - View all customer orders (pending, processed, shipped).
   - Process customer orders (change status to shipped, cancelled).

01 Write down the role of System Analyst? 10

02 Draw DFD Diagram for Level 0, Level 1? 10

03 Suppose that this project was estimated to be 600 KLOC (kilo lines of code). Calculate effort, time, Person Required for each of the three modes of development. All the constants value provided in the following table: [Use Basic COCOMO Model] 10

Software Projects	a	b	c	d
Organic	2.4	1.05	2.5	0.38
Semi-Detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

04. Describe Testing Life cycle? 10