(3 Hours)   [Total Marks :80

N.B. : (1) Question No. **1** is compulsory.
   (2) Attempt any **three** questions from **Q.2** to **Q.6**.

1. (a) Explain CMM   5
    (b) Give difference between Waterfall and Prototype Model   5
    (c) List Software Engineering Practice core Principles.   5
    (d) Explain following design concepts: Abstraction, Modularity   5

2. (a) What is agility? Explain XP   10
    (b) What is Design? Explain Design Principles   10

3. (a) Draw control flow graph and find cyclomatic complexity for the following PDL   10
        if(c1or c2 and c3) s1;
        else s2;
        while(c4) s3; s4;
        do s5; while(c5);
        s6

    (b) Explain testing strategies   10

4. (a) How important is requirement analysis. Elaborate on different requirement   10
        engineering tasks.

    (b) For the given Order processing system scenario draw DFD level 0, 1and 2. The   10
        customer can place order, cancel order, do modification in the placed order
        before it is delivered. The order is delivered to the customer address by the
        courier company. Customer can make payment for the placed order using credit
        card or net banking. If customer is not satisfied by the product he can return
        the product within 15 days from the delivery date. The refund is deposited back
        to the customer account within 10 days from the date of product return.

5. (a) Explain Refinement, Refactoring and design classes.   10
    (b) Explain different architectural styles.   10

6. (a) Explain Coupling and Cohesion. What is preferred in the component? Why?   5
    (b) Identify risk of completing graduation with good marks but without knowledge   5
    (c) Explain software quality attributes.   5
    (d) Explain change management process.   5