



VII SEMESTER B.TECH. (COMPUTER SCIENCE AND ENGINEERING)

END SEMESTER EXAMINATIONS, NOV/DEC 2016

SUBJECT: OBJECT ORIENTED ANALYSIS AND DESIGN [CSE 405]

REVISED CREDIT SYSTEM

2-12-2016

Time: 3 Hours

MAX. MARKS: 50

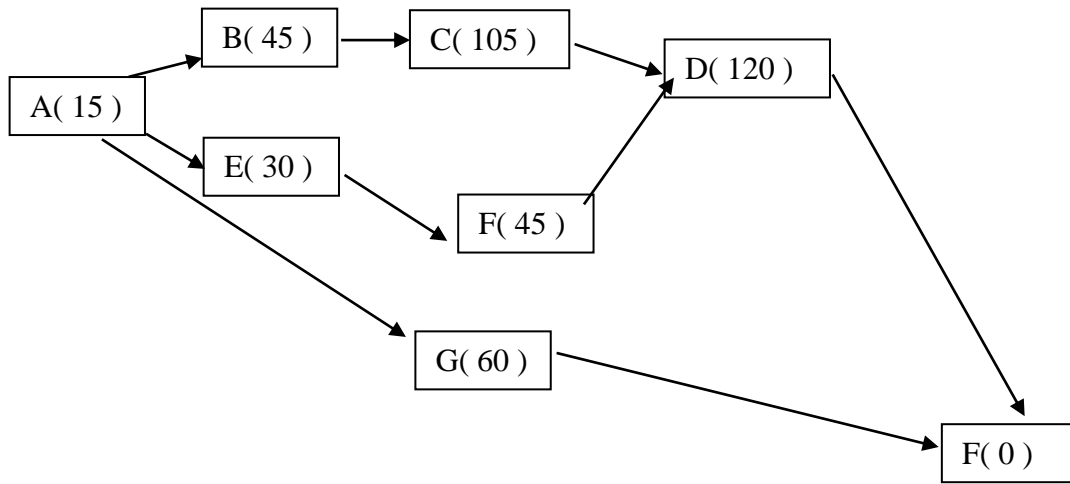
Instructions to Candidates:

- ❖ Answer **ANY FIVE FULL** questions.
- ❖ Missing data may be suitable assumed.

Case Study: Supermarket

A supermarket needs to develop the following software to encourage regular customers. For this, the customer needs to supply his/her residence address, telephone number, and the driving license number. Each customer who registers for this scheme is assigned a unique customer number (CN) by the computer. A customer can present his CN to the checkout staff when he makes any purchase. In this case, the value of his purchase is credited against his CN. At the end of each year, the supermarket intends to award surprise gifts to 40 customers who make the highest total purchase over the year. Also, it intends to award a 70 caret gold coin to every customer whose purchase exceeded Rs.80000. The entries against the CN are the reset on the day of every year after the prize winners' lists are generated.

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| 1A. | Explain SDLC Model with all the steps. | 5M |
| 1B. | Which SDLC Model is suited for the above example? Explain. | 3M |
| 1C. | How does a UP Model function? Explain the steps involved. | 2M |
| 2A. | Using Common Class pattern Approach, find all the classes for Supermarket Case Study, and draw the detailed class diagram. | 5M |
| 2B. | Explain the different relationships in class diagrams. | 5M |
| 3A. | Give Activity Diagram for Supermarket Case Study, using Swim lanes. | 4M |
| 3B. | An Organic Software Product has 32 KLOC. If the average salary of a software engineer is Rs.15000 per month, estimate the effort, development time and cost to develop the product. | 3M |
| 3C. | For the following Activity Network, given below, estimate Early Start Time, Early Finish Time, Late Start time, Late Finish Time and Slack Time. | 3M |



- 4A.** Give Use Case Description for any one use case for Supermarket Case Study. **3M**
- 4B.** What are Interaction Diagrams? Give all the Interaction Diagrams for any one use case for Supermarket Case Study. **5M**
- 4C.** Give a template for describing Functional Requirement, along with a suitable example. **2M**
- 5A.** What are Design Patterns? Explain its types with examples. **4M**
- 5B.** Explaining the parts of a Use Case Diagram, give the complete Use Case Diagram for Supermarket Case Study. **4M**
- 5C.** What are Stereotypes in UML? Explain with an example. **2M**
- 6A.** What are different types of Team Structures, in Project management? Explain. **4M**
- 6B.** What are the characteristics of a good user Interface Design? Explain. **3M**
- 6C.** How do you define events in UML? Explain with an example. **3M**