

1. a. Draw the complete SDLC diagram showing all its' phases. 4  
**CO1**
- b. List some interactive requirements gathering tools or fact finding methods. 4  
**CO1**
2. a. Following is the list of all costs and benefits of multinational clothing brand "Fashion Clothes". Compute the cost benefit analysis using simple cash flow method. Find **BEP** and **ROI**. 12  
**CO3**
- |  | Year 0  | Year 1  | Year 2  | Year 3  |
|--|---------|---------|---------|---------|
| <b>Costs:</b> Salary                       | 100,000 | 200,000 | 200,000 | 250,000 |
| Transportation                             | 10,000  | 50,000  | 25,000  | 25,000  |
| Machineries                                | 200,000 | 20,000  | 25,000  | 27,000  |
| Utility bills and advertisement            | 90,000  | 40,000  | 45,000  | 20,000  |
| <br><b>Benefits:</b> from country branches | 0       | 55,000  | 105,000 | 305,000 |
| From international branches                | 0       | 50,000  | 100,000 | 400,000 |
| From home Deliveries                       | 0       | 55,000  | 110,000 | 205,000 |
- b. Mr. X wants to invest his money in some business which would take not more than 2 years to recover his original investment. Do you suggest him to invest his money in "Fashion Clothes"? Justify your answer. [Hint: Use the answers of 2.a] 8  
**CO2**

3. You need to design an online movie ticket booking system. User need to register for the first time, then he can login. After login, a user can choose movie theater, and show date and time. Then system shows list of available movies and user can choose any of them. There are two types of tickets: premier and general, user can buy any type. User can pay ticket fare by bkash, rocket, or credit card. After a user buys a ticket, system updates the available seat information. Draw the use case diagram of the online movie ticket booking system.

**12**  
**CO3**