

Department of Computer Science & Engineering
University of Asia Pacific (UAP)

**Mid-Semester
Examination**

Fall 2020

**3rd Year 1st
Semester**

Course Code: CSE 305

Course Title: System Analysis and Design

Credits: 3

Full Marks: 60

Duration: 1 Hour 20 min

Instructions:

There are **Three (3)**. All questions are of equal value. Part marks are shown in the margins.

1.
 - a. Draw the complete SDLC diagram showing all its' phases. **4**
 - b. List some interactive requirements gathering tools or fact finding methods. Also discuss the advantages and disadvantage among all those tools. **10**
 - c. for arranging question in order gather the requirements of a system explain the following structure with example : **6**
 - I. Pyramid
 - II. Funnel
 - III. Diamond

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**

	Year 0	Year 1	Year 2	Year 3
Costs: 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
Benefits: from country branches		55,000	105,000	305,000
From international branches		50,000	100,000	400,000
From home deliveries		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: User the answers of 2.a] **8**

OR

- a. What is the major disadvantage of simple cash flow analysis method? Explain how you can overcome this. **8**

- b. 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**

- 3.** a. What is a system, system constraints and system properties? **10**

- b. “A system analyst is a single person who performs several roles simultaneously”- justify the statement according to the roles and skills of a system analyst. **10**