Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA– SEMESTER –III-EXAMINATION – WINTER-2023

Subject Code:4539252   **Date: 06-12-2023**
Subject Name: Systems Analysis and Design
Time:10:30 AM TO 1:30 PM   **Total Marks: 70**

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

Q.1		**Define following terms briefly:**	**14**
		(a) Project workbook	
		(b) OLAP	
		(c) Pseudocode	
		(d) BEA	
		(e) Primitive DFD	
		(f) Data mart	
		(g) Reengineering	
Q.2	**(a)**	Explain the role of system analyst. The system analyst is known as "An agent of change". Why?	**07**
	(b)	Explain the waterfall model with suitable example.	**07**
		OR	
	(b)	Explain the use of models, prototypes, and CASE tools in the systems development process. Also explain the pros and cons of agile development methods.	**07**
Q.3	**(a)**	Write down short note on: Methods of assessing project feasibility	**07**
	(b)	Explain term "Walkthrough". Also explain the process of Walkthrough meetings.	**07**
		OR	
Q.3	**(a)**	Describe various methods of interacting with a system and list down various hardware devices for interacting with an information system.	**07**
	(b)	What do you mean by decision table & explain the steps in creating a decision table? Compare & contrast, structured English & decision table techniques of logic modeling.	**07**
Q.4	**(a)**	What are system requirements? Explain traditional methods for determining system requirements.	**07**
	(b)	What is data-flow diagram? Explain the use of data-flow diagrams as an analysis tools.	**07**
		OR	

Q.4 (a) What are the different approaches to installation? Explain the most expensive method and also discuss most risky method for the same? Discuss how does an organization decide which approach to be used. **07**

(b) What is acceptance testing? Why should this testing be done? How important is this testing? **07**

Q.5 Read the following case study & give the answers of following questions. **14**

Alumni Database

The Dean - Mr. Stephen Jacob of the "FutureX" business school wishes to create a "family" consisting of its graduates and corporations that have been staunch supporters of the School of Management. Finding the existing database inadequate in terms of providing him with the information he needs to achieve his goal, he wishes to develop a new alumni database for the college. He wants the new database to capture all relevant information on alumni of the college and the corporate supporters of the college. To build a long-term relationship with alumni, he wishes to keep track of all alumni from each functional area (e.g., Acctg, Fin, Mkt, etc.) of the college, where they work (or have worked in the past), and any donations that they have made to the college. Similarly, for corporate supporters, the database must capture all relevant information on donations made by each corporation.

Upon further interviews with the Dean, he has indicated the following specific requirements for designing of database:

- A report that displays alumni information for a specified area for a particular year (e.g., 2019 graduates). The report should list, for the specified area and year of graduation, each alumnus's name, e-mail address, the degree earned (e.g., BBA, PGDBM, MBA, Ph.D., etc.), work phone number, and home phone number. Note that a similar report could be required for any area and any graduating year.
- For a specified city (e.g., Houston), a report listing all alumni who live in that city. The report will display the name of the city, and for each alumnus in that city, their name, home address, email address, work phone, and home phone.
- A report listing all corporate donors who have donated a total amount greater than $25,000. The report will be sorted in descending order of the total donated amount.
- A report that displays all donations made to a particular G/L (General Ledger) account. The ID of the donor, as well as the date and amount of the donation must be displayed.
- A report listing all alumni working for a particular company (e.g., NORTEL). This report must also display the date an individual joined the company, as well as, their job title and salary.
- A report that displays the employment history for a particular alumnus. The report must show, for each employer that alumnus has worked for, the employer name, the most recent job title the alumnus had with that employer company (e.g., Vice-President), the date the alumnus joined the company, and the date the alumnus left the company (if applicable).

Questions:

(a) According to you what benefits business school will get after implementation of new improved version of "Alumni Database"?

(b) What security factors you will consider while designing & implementing this kind of database?

Q.5 **Questions:** **14**

(a) If you were the administrator of college, what other features you want to add to "Alumni Database"?

(b) "Maintaining Database is always better than maintaining manual excel sheet"- Are you agree with this or not? Justify your stand.

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