

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA – SEMESTER –III-EXAMINATION – SUMMER-2022**

**Subject Code: 4539252****Date: 16-07-2022****Subject Name: Systems Analysis and Design****Time: 02:30 PM TO 05:30 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

<b>Q. No.</b>		<b>Marks</b>
<b>Q.1</b>	Definitions / terms / explanations / short questions based on concepts of theory/practical (a) Open Ended System (b) Distributed System (c) Entity (d) Enterprise Resource Planning (e) Beta Testing (f) Prototype approach (g) Reverse Engineering	<b>14</b>
<b>Q.2</b>	(a) Define System. Discuss various boundaries of System with underline objectives. (b) Discuss various basic principles of Successful System with appropriate example.	<b>07</b> <b>07</b>
<b>OR</b>		
	(b) Discuss SDLC approach of system designing with example in detail.	<b>07</b>
<b>Q.3</b>	(a) Discuss various types of documentation methods and elaborate the importance of documentation for every organization. (b) How to prepare technical and operational feasibility report for any given system. ( You can take any system as example)	<b>07</b> <b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Discuss with Example how Cost Benefit Analysis can be performed for evaluating the proposed System. (b) What is Prototyping? Explain difference between evolutionary and throwaway prototyping.	<b>07</b> <b>07</b>
<b>Q.4</b>	(a) Prepare E-R Diagram for School Management System. (b) Discuss how Decision Tree techniques can be used to design system for Stock broking house.	<b>07</b> <b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) Design and Explain DFD for Ticket Booking system. (b) Explain the Project Management tools that are utilized during System Development process with their pros and cons.	<b>07</b> <b>07</b>

**Q.5 Case Study:**

In the new system for Holiday Travel Vehicles, the system users follow a two-stage process to record complete information on all of the vehicles sold. When an RV or trailer first arrives at the company from the manufacturer, a clerk from the inventory department creates a new vehicle record for it in the computer system. The data entered at this time include basic descriptive information on the vehicle such as manufacturer, name, model, year, base cost, and freight charges. When the vehicle is sold, the new vehicle record is updated to reflect the final terms of the sale and the dealer-installed options added to the vehicle. This information is entered into the system at the time of sale when the salesperson completes the sales invoice.

When it is time for the clerk to finalize the new vehicle record, the clerk will select a menu option from the system, which is called “Finalize New Vehicle Record.” The tasks involved in this process are described next.

When the user selects the “Finalize New Vehicle Record” from the system menu, the user is immediately prompted for the serial number of the new vehicle. This serial number is used to retrieve the new vehicle record for the vehicle from system storage. If a record cannot be found, the serial number is probably invalid. The vehicle serial number is then used to retrieve the option records that describe the dealer-installed options that were added to the vehicle at the customer’s request. There may be zero or more options. The cost of the option specified on the option record(s) is totaled. Then, the dealer cost is calculated, using the vehicle’s base cost, freight charge, and total option cost. The completed new vehicle record is passed back to the calling module.

- (a) Design the DFD diagram for the given requirement. **07**
- (b) Develop a structure chart for this segment of the Holiday Travel Vehicles system. **07**

**OR**

- Q.5**
- (a) Design the E-R Diagram for the above mentioned Detail. **07**
  - (b) What type of structure chart have you drawn, a transaction structure or a transform structure? Why? **07**

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