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Daffodil International University

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Final Examination, Fall 2023

Course Code: CSE325, Course Title: System Analysis and Design

Level: 3, Term: 2 Batch: 59

Time: 2 hours Marks: 40

Answer all the following questions

You must answer parts of a question sequentially. The figure in square brace at the right side of a question indicates the marks allocated to the questions.

	Daraz is one of the well-known and leading e-commerce marketplaces across South Asia (excluding India). Their business covers four key areas – e-commerce, logistics, payment infrastructure and financial service. In this platform, they provide sellers and customers an end-to-end commerce solution. Suppose you want to build an e-commerce website like Daraz, However, You want to make your site more attractive than Daraz. In the proposed system, different categories of products will be available like electronics, clothes, living room, dining room, Kitchen item and so on. When a customer clicks on any categories it will show its sub categories and under subcategories different items are listed. Items are displayed with item name and necessary description. Customers can view any item from the website and can order products. After submission of an order the system will check whether the items are in stock. On the other hand, to confirm the order, customers should have to select the item name, quantity and other specifications if any. Customer has to login the system with a valid email address and password. If the customer does not have any account then he/she has to sign up first. For that he/she has to fill up a form. Form will contain customer name, mobile number, email id, credit/debit card information, address and so on. To protect user information the password must be at least 8 characters long, It will contain a capital letter, a small letter, a digit, and a special character. An invoice will be created against the accepted order and will be sent to the customer. A promotional package, discount offer, shipment cost will be considered during the invoice preparation. Customers can pay their bill by credit/debit/master card, by Bkash or Nagad. Now answer the following questions		

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1.		Different task schedule and their dependency for your propose system is given bellow: **Task / Dependency / Time(Weeks)** A — None — 5 B — None — 7 C — A — 4 D — A,B,C — 8 E — B,C, H — 6 F — D — 3 G — D,E — 6 H — None — 4 I — F — 3 J — G — 4 K — J,I — 8 Now, Construct a Gantt chart, a PERT diagram for this system and identify the critical path with critical value.	[10]	[C02]
2.	a.	Demonstrate about the appropriate Internet business model of Daraz. Explain about the category of e-commerce that attracts you to start your own business.	[5+5]	[CO2]
	b.	Plan the testing required for the system. You should consider performance tests, scalability tests, and regression tests in your test plan. Also design the test cases and data that you will use for testing the Sign up form.		
3.		Design a web page for customers to browse the different items and order them online. Include buttons or links to change the sort sequence in your design. Also design an invoice with necessary information for your proposed system.	[10]	[CO5]
4.	a.	From your point of view what types of major security challenges may you face in your site? Illustrate your plan to minimize these problems.	[5+5]	[CO3]
	b.	Identify the most effective security systems for online payment gateway systems of your propose systems with proper explanation.		