Southeast University **[MMJR]**
Department of Computer Science & Engineering
Mid-Term Examination, Summer 2023
Program: B. Sc. in CSE
Course Code: CSE 141.1/141.6, **Course Title:** Computer Fundamental
Date: Tuesday, 05-09-2023, **Time:** 9:30 AM to 11:00 AM

Instructions: Examinees are not allowed to use cell phones or any communication devices in the exam hall

[N.B. - The figures in the margin indicate full marks and the symbols carry the usual meaning.]

Duration: **1.5 Hours** Full Marks: **30**

Answer the following questions.

1.	Convert the following number into the given format. A. $(152A.25)_{16} = (\ )_{10}$ B. $(1100110101)_2 = (\ )_{16}$ C. $(111110101011.0011)_2 = (\ )_8$	6
2.	Write a Python program that takes marks from the user and displays the corresponding grade based on the provided marks range. A+ ->80 to 100 A ->70 to 79 B -> 40 to 69 F -> 0 to 39 Sample input and output: Input: Output: 85 Your Grade is: A+ 32 Your Grade is: F 65 Your Grade is: B 73 Your Grade is: A 40 Your Grade is: B	6
3.	Draw the context diagram based on the given scenario: A customer opens the **Food Order System** app or website and browses through a list of restaurants and their menus. They select items they want to order, specify any customizations, and add them to their cart. The order details are instantly transmitted to the chosen restaurant's kitchen. The restaurant staff acknowledges the order and starts preparing the food. The customer provides delivery information, including their address and preferred payment method. The system calculates the total cost, including taxes and delivery fees, and displays it to the customer. The customer securely pays for their order using the chosen payment method, such as credit card, digital wallet, or cash on delivery. The customer receives an order confirmation with an estimated delivery time. They can track their order's status in real-time. The restaurant's kitchen staff prepares the ordered dishes while maintaining quality and hygiene standards. Once the food is ready, a delivery driver is assigned to pick up the order and deliver it to the customer's specified location. The driver	6

	delivers the food to the customer. After receiving the order, the customer can provide feedback and rate their experience through the app or website. The system ensures that the restaurant receives the payment for the order, minus any applicable fees. The system administrator regularly maintains and updates the Food Order System to ensure it operates smoothly and securely.	
4.	Write down the five software requirement elicitation techniques with descriptions and their real-life application.	6

5.	Write down the output for the following code based on the given input: [The values of b and h are 4 and 1 respectively, b=4 and h=1]
	
	# To print the single spaces in the sentence
	print("Geeks"+" "+"For"+" "+"Geeks")
	print("Geeks","For","Geeks")
	# to print spaces by given times
	print("Geeks"+" "*3+"For"+" "*3+"Geeks")
	print("Geeks"+" "*5+"For"+" "*10+"Geeks")
	b = int(input("Input the base : "))
	h = int(input("Input the height : "))
	# Take input of the b and h from the user
	area = b*h/2
	print("area = ", area)
	print("Dhaka")
	print("b")
	print("\n SEU")
	print (b**h)
	print (b!=h)
	p='My passion is singing
	print(p[2:5])
		6