Chandigarh College of Engineering and Technology, (Degree Wing) Chandigarh Department of Computer Science and Engineering

CS-301: Data Structures Assignment: 01 Date: 16.07.2024

S. **Note:** Start answer of a fresh question from fresh page only. Direct Marks course No. answer to a question will not be entertained. (CO)

(CO) CO4

- 1. In a marketing firm, commission is given based on the sales. If sales are less than 5000.00, then there is no commission. If sales are more than or equal to 5000. 00 but less than 10000 then the commission is 2%. If sales is greater than or equal to 10000 but less than 50000 then the commission is 4%. If sales is greater than 50000. 00 the discount is 6%. Draw a decision table for it.
- 2. Student results are declared using the following rules: There are two subjects in the examination called main and ancillary. If a student gets 50 % or more in the main subject and 40% in the ancillary he/she is passed. If he/she gets less than 50% in the main subject, he/she must get 50% or more in the ancillary to pass. However, the minimum pass marks are 40% in the main subject. If a student gets 60% or more in the main subject, he/she is allowed to repeat ancillary subject if the ancillary subject is less than 40%. However, there are a group of students in the class who are granted special consideration. Their percentage is 40% in main and 40% in ancillary. If they get less than 40% in the ancillary, they are allowed to repeat that subject, if they obtain 40% or more in the main subject.
- 3. How a program is executed? Discuss with the help of suitable example.
- 4. How to perform the dry run or desk check? Give suitable example(s) in support of your answer.
- 5. What are basic concepts of Decision table? Discuss. Give suitable example(s) in support of your answer.
- 6. What is flowchart? How it differs from Decision Table. Discuss with the help of suitable example. What are Advantages and disadvantages of the flowcharts
- 7. A Company manufactures three product engines, pumps and fans. It gives a discount of 25 percent on orders for engines, if the order is worth Rs. 10,000 or more. The same discount or more on fan orders of value 5000 or more and on pump orders value Rs. 7000 or more. On all other orders, they do not give any discount. Prepare flowchart for this decision problem.