

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BVOC- SEMESTER- II EXAMINATION – SUMMER 2023

Subject Code:21120402

Date:19-07-2023

Subject Name: Design of Air Conditioning Systems

Time:10:30 AM TO 12:30 PM

Total Marks:50

Instructions:

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Simple and non-programmable scientific calculators are allowed.**

	Marks
Q.1 (a) Classify of air conditioning systems in detail.	05
(b) Define: Dry Air, Moist Air, Dry Bulb Temperature, Wet Bulb Temperature, and Dew Point Temperature.	05
Q.2 (a) Draw Psychrometric chart and label all the details on it.	05
(b) Define Air Conditioning in brief.	05
OR	
(b) Define the term 'Psychrometry'? Explain in detail Sling psychrometer.	05
Q.3 (a) Explain All Air System in brief.	05
(b) Explain Package Air Conditioning System with neat sketch.	05
OR	
Q.3 (a) Explain All Water System in brief.	05
(b) Explain Split Air Conditioning System with neat sketch.	05
Q.4 (a) Write down the factors affecting on human comfort.	05
(b) Explain the classification of cooling and heating load.	05
OR	
Q.4 (a) Define and explain Effective Temperature	05
(b) Explain sensible heat gain and latent heat gain to air conditioning space	05
Q.5 (a) Give broad classification of duct.	05
(b) Discuss flywheel effect of building material.	05
OR	
Q.5 (a) Explain the function of Duct.	05
(b) Explain load due to air infiltration and ventilation.	05
