

Sub: Climatology (AR 303)

3rd Semester Examination

Full Marks: 35

Answer any four questions

Time: 2 Hrs.

3 marks reserved for neatness

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1. (a) What is the difference between Dry Bulb Temperature and Wet Bulb Temperature? How these two temperatures are measured? 2
- (b) What is the difference between Monthly Mean Maximum Temperature, Monthly Mean Minimum Temperature, Monthly Extreme Maximum Temperature and Monthly Extreme Minimum Temperature? 2+2+2
2. (a) What is a Comfort Scale? 2
- (b) What is the use of Bioclimatic chart? Explain with a sketch 2
- (c) What is Effective Temperature (ET) Nomogram? What is its utility in understanding thermal comfort in a region? 4
- 3.(a) Explain with sketch the heat exchange process in a building. 5
- (b) What are the factors in a building that influence its heat exchange process. 3
- 4.(a) Explain the role of a heat absorbing glass in thermal control in a building. 3
- (b) Explain graphically the roles of site planning parameters, building parameters and mechanical means in controlling indoor climatic conditions. 5
- 5.(a) What are the functions of natural ventilation in a building? 1
- (b) What do you mean by Stack Effect? Explain with sketch. 3
- (c) What are the factors that influence stack pressure? 1
- (d) Explain with sketch the utility of Wind Scoop in controlling indoor situation in hot dry climate. 3