

221142

**4th Sem.**  
**Branch : Food Technology**  
**Sub. Principles of Food Engineering**

M.M. : 60

**Note: Multiple choice Questions. All Questions are compulsory. (6x1=6)**

- Q.1 The SI unit of temperature is \_  
a) Kelvin                                  b) Celsius  
c) Fahrenheit                              d) Rankine
- Q.2 Full form of HTST is  
a) High Temperature Short Time  
b) High Time short Temperature  
c) High Temperature Short Temperature  
d) High Time Short Time
- Q.3 Which of the following is used in the food industry for sterilization?  
a) Pasteurizer                                b) Evaporator  
c) Autoclave                                 d) Drier
- Q.4 Unit of volume is  
a) Volume cube                              b) Meter cube  
c) Kg Cube                                     d) Watt

- Q.5 Which of the following is NOT a fundamental quantity?  
 a) Density                              b) Specific gravity  
 \ c) Thermal conductivity      d) Viscosity
- Q.6 Which of the following is a mode of heat transfer through a solid material?  
 a) Conduction                              b) Convection  
 c) Radiation                              d) None of these

### SECTION-B

**Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)**

- Q.7 Direct heating has higher heat transfer rates than indirect heating. (True/False)
- Q.8 CGS unit system means \_\_\_\_\_.
- Q.9 Define Latent heat.
- Q.10 Viscosity is NOT the property of \_\_\_\_\_. (Liquids / Solids)
- Q.11 Plate evaporators can be used for viscous liquids. (True/False)
- Q.12 Reynolds's number 4000 or more signifies \_\_\_\_\_ flow. (Laminar/ Turbulent)

### SECTION-C

**Note: Short answer type Questions. Attempt any eight questions out of ten Questions. (8x4=32)**

- Q.13 What are the various modes of heat transfer?

- Q.14 What do you understand about system of units? Classify it.
- Q.15 Differentiate between steam and water blanchers?
- Q.16 Describe the operation of fluidized bed boiler with neat and clean diagram.
- Q.17 What is Reynold's number? Give its range for different fluid flow.
- Q.18 Describe the working principle of multiple-effect evaporator.
- Q.19 What is manometer? Explain the working principle of U tube manometer.
- Q.20 What are the uses of heat exchanger?
- Q.21 Define all the characteristics of fluid flow.
- Q.22 Describe the working principle of centrifugal pump.

### SECTION-D

**Note: Long answer questions. Attempt any two questions out of three Questions. (2x8=16)**

- Q.23 Define Dryer and enlist their type. Explain any one in detail with neat and clean diagram.
- Q.24 Explain the concept of mass transfer during food processing in detail.
- Q.25 What are the various physical properties of food? Explain.