

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Describe evaporator. Name different types of evaporators and explain any one with diagram.
- Q.4 Explain various types of mode of heat transfer.
- Q.5 Define principle, construction and working of centrifugal pump with diagram.
- Q.6 Classify heat exchangers and explain any one of them with diagram.
- Q.7 Enlist different driers used in food industry and explain any one.

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No. of Printed Pages : 4

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4th Sem. / Food Technology

Subject : Principles of food Engineering

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 a) Full form of CGS and MKS unit system.
- b) Pasteurization
- c) Density
- d) Porosity
- e) U.H.T
- f) Manometer
- g) Thousand Grain Weight
- h) Wet bulb Temp.
- i) Humidity

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- j) Sterilization
- k) Food engineering
- l) Heat exchanger
- m) Evaporation
- n) Dew point
- o) Viscosity
- p) Distillation
- q) Thermal Conductivity
- r) Thermal Diffusivity

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) Give principle of plate type heat exchanger.
 - ii) What do you mean by counter, Concurrent and cross flow in heat exchanger?
 - iii) What is autoclave?

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- iv) Write a short note on pasteurization.
- v) Write a short note on manometer.
- vi) Why angle of repose determination required.
- vii) Describe principle of energy balance in brief.
- viii) Draw diagram of fluidized-bed drier showing different parts.
- ix) Make the diagram of spray drier and label its different parts.
- x) What is the principle of microwave heating?
- xi) Define Fick's Law.
- xii) How angle of repose can be determined?
- xiii) Write down the application of psychometric.
- xiv) Write a note on conduction.
- xv) Define pump and write the name of positive displacement pump.

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