



17579

16117

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) *All questions are compulsory.*
 - (2) *Illustrate your answers with **neat** sketches **wherever** necessary.*
 - (3) *Figures to the **right** indicate **full** marks.*
 - (4) *Assume suitable data, if **necessary**.*
 - (5) *Use of Non-programmable Electronic Pocket Calculator is **permissible**.*
 - (6) *Mobile Phone, Pager and any other Electronic Communication devices are **not permissible** in Examination Hall.*

Marks

1. Attempt any five :

20

- a) What is homogenization ? How efficiency of homogenization is calculated ?
- b) Write factors affecting human comfort.
- c) Write application areas of A.C. systems.
- d) Explain year round A.C. system with sketch.
- e) Write sources of sensible heat gain and latent heat gain.
- f) Differentiate between single stage homogenization and two stage homogenization.
- g) Explain centrifugal cream separators with sketch.

2. Attempt any two :

16

- a) Explain positive displacement pump used in sanitary operation with sketch. Write its specifications.
- b) Write principle of operation of can washer. Explain rotary can washer with sketch.
- c) Explain construction and working of refrigerated storage tanks. Write its specification.

3. Attempt any two :

16

- a) Write purpose of pasteurization. Explain continuous pasteurization plant with sketch.
- b) Write concept and necessity of evaporators. Explain single and multiple operation.
- c) Explain in brief:
 - i) Handling of dispenser milk containers
 - ii) Handling of ice cream.

P.T.O.



- 4. Attempt any two :** **16**
- a) Explain the terms
 - i) Bypass factor ii) ADP iii) SHF iv) RSHF
 - b) Explain cream ripening tanks and its working, also comment on materials used.
 - c) Write functions of following in ice cream equipments
 - i) Freezing cylinder ii) Dasher
 - iii) Scrapping blades iv) Control system
- 5. Attempt any two :** **16**
- a) State requirement of duct materials used in air distribution systems. Explain radial duct system.
 - b) Explain various types of insulating materials used in A/c system and methods of applying insulation.
 - c) Explain ghee pan and ghee making equipment with sketch.
- 6. Explain any four :** **16**
- a) Adiabatic mixing of air systems.
 - b) Purpose and properties of insulating materials used in A/c system.
 - c) Grills and diffusers.
 - d) Case stackers and unstackers.
 - e) Spray dryer.
 - f) Sanitary pipe fitting standards.
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