



17582

15162

2 Hours / 50 Marks

Seat No.

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

	Marks
1. Attempt any seven questions :	14
i) Give the importance and scope of post harvest technology.	2
ii) Derive the relationship between dry basis and wet basis moisture content.	2
iii) Give the advantages and disadvantages of sun drying.	2
iv) Differentiate between cleaning and grading.	2
v) What is storage ? Explain the general principle of storage.	2
vi) What is expression and extraction of oil ?	2
vii) What is the selection criteria before selecting a conveying system ?	2
viii) Explain different types of idlers with neat sketch.	2
ix) Write down the selection criteria for the selection of fruits and vegetables for canning.	2
x) Write down the advantages of exhausting in canning.	2
2. Attempt any four questions :	12
i) What is deep bed drying ? Discuss the term of advance of drying front and decreasing rate period.	3
ii) Explain the construction and working principle of scalper.	3
iii) What is bagging ? Explain the different methods of bagging the seed.	3
iv) Explain in brief about the Rittinger's law and Kick's law.	3
v) Explain the construction and working of screw conveyor.	3
vi) What is moisture content ? Explain the different methods used to determination of moisture content.	3

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- 3. Attempt any four questions :** **12**
- i) Explain the construction and working principle of LSU dryer with neat sketch. **3**
 - ii) Explain the construction and working principle of indented cylinder separator. **3**
 - iii) Explain the different methods of seed treatment. **3**
 - iv) Explain the working principle of Hammer Mill with neat sketch. **3**
 - v) Explain the steps involved in canning of fruits. **3**
 - vi) Explain the method of preparation of jam with the help of flow chart. **3**
- 4. Attempt any four questions :** **12**
- i) Explain in detail constant rate period of drying. **3**
 - ii) Explain the method of preparation of tomato ketchup with the help of neat flow chart. **3**
 - iii) Explain the working principle of magnetic separator. **3**
 - iv) Explain in brief about the different packaging materials used for packaging. **3**
 - v) How much power is required to crush 02 tonnes/hr. of material if 80% of the feed passes through IS (Sieve No. 480) (4.75 mm opening) and 80% of the product passes through IS Sieve No. 50 (0.5 mm opening). Give the work index of the material is 6.30. **3**
 - vi) Write down the different machineries used in processing of fruits and vegetables with their use. **3**
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