

Printed Pages : 3



EAG-701

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 180707

Roll No.

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B. Tech.

(SEM. VII) (ODD SEM.) THEORY
EXAMINATION, 2014-15
CROP PROCESS ENGINEERING

Time : 3 Hours]

[Total Marks : 100

Note : The question paper is divided into three sections.
Attempt each section.

SECTION - A

1 Attempt the following short answer type questions :

(10×2=20)

- Define processing. Name any two desirable features of processing.
- Name any two animal products need to be processed.
- Give any two size reduction machines and their principles.
- Define Fineness modules.
- Name any two mixtures composed of dry materials and their utilities.
- List any four types of filters and their rate of filtration.
- On what principles Pnumatic separation works.

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[Contd...

- (h) What is unsized separation ?
- (i) What is the work of conveyor ?
- (j) Name any two importance of material handling devices.

SECTION - B

- 2 Attempt any **three** parts of the following : (10×3=30)
- (a) Discuss the status and scope of food processing industry in our country.
 - (b) Explain the construction and working of Burr-mill.
 - (c) What is the theory of mixing and mixing index ?
 - (d) Explain the working of belt conveyor.
 - (e) Write short note on :
 - (i) Bucket Elevators
 - (ii) Gravity Conveyor.

SECTION - C

3. Attempt any **five** questions : (10×5=50)
- (a) What are the desirable design features of processing equipments ? Describe.
 - (b) Design a horizontal screw conveyor for conveying grain (bulk density=640 kg/m³) with required capacity of 2 tonnes/hr and for conveying length of 5m. The diameter of screw conveyor is 5cm. Assume data wherever necessary.
 - (c) Draw line diagram of hammer mill and discuss design features pertaining to safety fitted on it.

- (d) Make the layout of modern Dal-mill and suggest measures to enhance its process efficiency.
 - (e) Describe any one improved method of oil extraction.
 - (f) Write the important mechanical properties of a material commonly used in the construction of process equipment.
 - (g) Write FPO requirements for installation of a small scale fruit processing industry in Uttar-Pradesh.
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