

B.Sc. (Ag.) Honours Semester-V Examination, 2014
Course No: AEG-311 (Protected Cultivation & Post Harvest Technology)
(New Syllabus)

Signature of Centre Superintendent

Roll No. : (in figure) _____ (in words) _____

Student Index No. _____ Regn. No. _____ of _____

Time : Two Hours

Full marks : 40

Questions are of value as indicated in the margin

Part - I

(Objective and Short Answer Type)

(Use only ball point pen)

Time : 20 minutes

Full marks : 10

- Note:** 1. Answer in question paper itself.
2. Striking, rewriting or overwriting are not allowed in the objective type questions.

1. Fill up the blanks with most appropriate words (any ten) :

10×1=10

- (i) If the moisture content in dry basis is 25%, its value in the wet basis is _____.
- (ii) Angle of repose _____ with the increase of moisture content of the material.
- (iii) The amount of heat required to raise the temperature of unit mass through 1°C is called _____.
- (iv) The moisture content attained by a grain with respect to a set of atmospheric temperature and relative humidity is called _____.
- (v) The moisture content of the product from where the constant rate drying ceases and falling rate drying starts is called _____.
- (vi) Boilers are stored in _____ house in green house.
- (vii) _____ gas is used as fuel in water tube boiler.
- (viii) Single green house is oriented in _____ direction for >40° latitude
- (ix) To achieve reliable mass flow, hopper slope angle should be in the range of _____
(a) 60-70° (b) 10-20° (c) 5-10° (d) 90-100°.
- (x) The mode of operation of a rubber-roll dehusker for shelling paddy is _____
(a) Impact (b) Crushing (c) Cutting (d) Shearing
- (xi) Classification of cleaned product into various quality fraction depending upon the commercial values and other usage is known as _____ (a) Cleaning (b) Grading (c) Sorting (d) Scalping
- (xii) The Husk content of the paddy varies from _____ (a) 2% - 3% (b) 5% - 8% (c) 18% - 20%
(d) 60% - 70%

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Part - II
(Descriptive Type)

Time : 100 Minutes

Full marks : 30

Questions are of value as indicated in the margin

Answer *any four* questions from the following :

2. (a) Mention the name of three traditional and two improved structures for storage of food grains.
(b) Explain different steps in parboiling of paddy.
(c) Mention advantages and disadvantages of LSU dryer. 2.5×3=7.5
 3. (a) Differentiate between the following : 2.5×3=7.5
 - (i) Cleaning and Grading
 - (ii) Engelburg Huller and Centrifugal Dehusker
 - (iii) Thin layer drying and deep bed drying
 4. Write short notes on the following : 2.5×3=7.5
 - (i) Advantages of Grain drying
 - (ii) Aeration of stored grains
 - (iii) Engineering properties of agricultural materials.
 5. (i) Describe the design criteria of green house and materials for construction of low cost green house. 3.5+4=7.5
(ii) Explain active solar green house cooling system.
 6. (i) Briefly explain green house heating and heat distribution system. 4+3.5=7.5
(ii) Briefly explain central heating systems.
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