

KERALA AGRICULTURAL UNIVERSITY

B.Tech (Agrl.Engg.) 2008 Admission

VIth Semester Final Examination – July 2011– August 2011

Phpt - 3205

Agricultural Structures and Environmental Control (2+0)

Max. Marks: 80

Time: 3.00 hours

I. Fill in the Blanks:

(10x1=10)

1. The capacity of a septic tank may be taken as _____ cu.m for an average size family of five members.
2. The type of barn where the cows are housed and milked in the same building is called as _____.
3. The average floor area required for hens varies from _____ sq.m.
4. The face-out type of barn is preferred for _____ (cows/bullocks).
5. _____ is a litter material that can be used on the floor of a deep litter poultry house.
6. _____ are essential in raising and managing chicks.
7. _____ are required in the laying house to serve as a perch for hens to rest up on.
8. Concrete is low in _____ strength. (tensile / compressive)
9. _____ ponds are also called as lagoons or oxidation ponds.
10. Chemical composition of lime is _____.

II. Write short notes on any TEN of the following:

(10x3=30)

1. Solar radiation factor.
2. BIS-poultry
3. Bore hole latrine.
4. Woven wire fencing.
5. Cow stall (stanchion barn).
6. Water Trough
7. Compost pit
8. Silage
9. Milking parlour
10. BOD
11. Feed alley
12. Filtration of Food plant waste.

III. Write short essays on any SIX of the following:

(6x5=30)

1. Briefly explain about the construction details of a trench silo.
2. Describe the construction of a soakage pit with a neat sketch.
3. Enumerate the differences between a stall barn and a loose housing barn.
4. Give the construction procedure of a deep litter poultry house with a sketch.
5. Describe the different layers of a water bound macadam road for a farmstead.
6. Give an account of cement, mortar and concrete used for building construction.
7. Describe the primary treatment processes of food plant waste.
8. Work out the economical diameter and depth of a silo to store sufficient quantity of silage for a herd of 500 dairy cows having an average body weight of 400 kg each. The cows are fed silage for 250 days a year.

IV. Write an essay on any ONE of the following:

(1x10=10)

1. Describe the various equipments used in a poultry house with sketches wherever necessary.
2. Design a septic tank for a family of six members with necessary assumptions.