



**KERALA AGRICULTURAL UNIVERSITY**  
**B.Tech. (Ag. Engg.) 2016 Admission**  
**V Semester Final Examination-January 2019**

**Fape.3104      Agricultural Structures and Environmental Control (2+1)**

**Marks: 50**  
**Time: 2 hours**

**I      Fill up the following      (10x1=10)**

- 1 In a stall barn, the floor area (in m<sup>2</sup>) required for each cow is \_\_\_\_\_
- ✓ 2 Mangers used in barns should have width ranging from \_\_\_\_\_
- 3 Bag storage structures are often used to store grains from \_\_\_\_\_ to \_\_\_\_\_ tonnes.
- ✓ 4 Safe grain moisture content for storage is about \_\_\_\_\_ percent.
- ✓ 5 The stored fodder is known as \_\_\_\_\_

**State whether following statements are true or false**

- 6 Barbed wire fencing is preferred on dairy farms
- 7 A floor area of 0.36m<sup>2</sup> per bird is usually provided.
- 8 Deep litter poultry housing aims at keeping poultry inside a shed all the time.
- 9 In loose housing barn, the cows are housed and milked in the same building.
- 10 The minimum slope which should be provided in the gutter so that there is unrestricted flow of drainage water into manure pit outside the barn is 3.5%.

**II      Write Short notes on any FIVE of the following      (5x2=10)**

- 1 ✓ Loose Housing Barn
- ✓ 2 Farmstead
- 3 Rural Roads
- 4 Silo
- 5 Bag storage structure
- 6 Sources of water supply at farmstead
- ✓ 7 Stanchion Barn

**III      Answer any FIVE of the following.      (5x4=20)**

- 1 What factors should be considered for location of Farmstead?
- ✓ 2 What do you understand by fencing? Enlist the types of fencing and Explain Barbed wire fencing with figure.
- ✓ 3 Enlist types of silo. Explain pit silo in brief.
- 4 Sources of farmstead water supply.
- 5 What are the storage structures? Explain Bukhari type storage structure with neat figure.
- 6 Physiological reaction of livestock to solar radiation and environmental factors.
- ✓ 7 Different components of deep litter poultry system.

**IV      Answer any ONE of the following      (1x10=10)**

- 1 Importance of aeration during moisture and temperature changes in stored grain.
- ✓ 2 What are the requirements of good storage structure? Differentiate between deep bin and shallow bin.

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