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Question Paper Code: 51024

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Second Semester

Agricultural Engineering

15UAG204 - PRINCIPLES OF AGRICULTURAL ENGINEERING

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- The downward movement of water through the soil profile is known as
(a) percolation (b) seepage (c) drainage (d) interflow
- _____ is a micro irrigation.
(a) flooding (b) furrow (c) check basin (d) drip
- _____ used to harvest, thresh and clean the grain from the straw in one operation.
(a) combines (b) thresher (c) harvester (d) reaper
- _____ is a primary tillage equipment.
(a) plough (b) sweeps (c) cultivator (d) tillers
- Pasteurization of milk is done at _____ C.
(a) 50 (b) 72 (c) 90 (d) 110
- _____ is used for ripening.
(a) ethylene (b) CO₂ (c) O₂ (d) Nitrogen
- _____ is an example of renewable energy.
(a) wind (b) coal (c) natural gas (d) liquid fuel
- In biomass conversion process briquetting is a _____ process.
(a) physical (b) chemical (c) biochemical (d) mixed

9. Stanchion barn is also known as _____ barn.
(a) loose house (b) general purpose (c) open air (d) lofing
10. _____ is used for store animal fodder.
(a) silos (b) Bukkhari (c) kothar (d) Morai

PART - B (5 x 2 = 10 Marks)

11. Indicate the importance of agricultural engineering in global scenario?
12. What is meant by fertigation?
13. Name the unit operations done in agricultural processing.
14. Define gasification.
15. Sketch stanchion barn and name the parts.

PART - C (5 x 16 = 80 Marks)

16. (a) Define soil erosion and discuss soil conservation methods in detail. (16)
Or
(b) Discuss soil water plant relationship in detail. (16)
17. (a) Describe secondary tillage equipment with necessary diagram. (16)
Or
(b) Explain the harvesting method for groundnut and potato. (16)
18. (a) Discuss the importance of ripening chamber and sold storage in fruit industry. (16)
Or
(b) Explain any two material handling equipments with neat sketch. (16)
19. (a) Describe the utilization of wind energy and bio gas energy in agricultural operations. (16)
Or
(b) Describe gasification of bio mass with necessary sketch. (16)
20. (a) Explain any two types of poultry house with neat sketch. (16)
Or
(b) Explain any three storage structures used for food grain storage. (16)