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**Question Paper Code: 52A04**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Second Semester

Agriculture Engineering

15UAG204-PRINCIPLES OF AGRICULTURAL ENGINEERING

(Regulation 2015)

Duration: 1.15 hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

- Storage fodder in grain storage structures are called as CO1- R  
(a) Sewage (b) Silage (c) Spoilage (d) Bukhari
- Thermal decomposition of organic matter in the absence of air is CO1- R  
(a) Gasification (b) Densification  
(c) Biogas production (d) Biomass production
- \_\_\_\_\_ is a primary tillage equipment. CO2- R  
(a) Plough (b) Thresher (c) Harvester (d) Reaper
- Tillage system in which only the isolated bands are tilled is called as CO2- R  
(a) Zero tillage (b) Mulch tillage (c) Minimum tillage (d) Strip tillage
- Pasteurization of milk is done at \_\_\_\_\_ °C CO3- R  
(a) 50 (b) 72 (c) 90 (d) 110
- Concentrating collectors can absorb CO3- R  
(a) Only direct radiation (b) Only diffused radiation (c) Direct and diffused radiation (d) Global radiation
- Stanchion barn is also known as \_\_\_\_\_ barn CO4- R  
(a) Loose house (b) General purpose (c) Open air (d) Lofing
- The main difference between planter and seed drill is CO4- R  
(a) Row spacing (b) Sowing (c) Covering the seed (d) Speed
- The water content retained in the soil after the gravitational water has drained off from the soil is known as CO5- R  
(a) Capillary water (b) Salt water (c) Hygroscopic water (d) Wilting point

10. In biomass conversion process, briquetting is a \_\_\_\_\_ process CO5- R  
(a) Chemical                      (b) Hydrothermal                      (c) Thermal                      (d) Compression

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. What are the methods of irrigation? Discuss the drip irrigation system of irrigation with a neat sketch of layout indicating all components. CO1-U (8)
12. Explain combine harvester, its components and functions in detail. CO2-U (8)
13. Discuss the different material handling equipments and their applications in detail CO3- U (8)
14. Explain the process of gasification of biomass, chemistry and its application for IC engines CO4-U (8)
15. Explain the green house structure, components, design requirements and applications in detail with neat diagram. CO5- U (8)