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 **Reg. No. :**

**Question Paper Code: 52104**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 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)

1. \_\_\_\_\_\_ is a micro irrigation.

(a) flooding (b) furrow (c) check basin (d) drip

2. According to USDA classification the size of gravel is \_\_\_\_\_\_\_\_\_\_ mm.

(a) > 2 (b) 1 to 2 (c) 0.5 to 1 (d) 0.2 to 2

3. \_\_\_\_\_\_\_ is a primary tillage equipment.

 (a) plough (b) sweeps (c) cultivator (d) tillers

4. \_\_\_\_\_\_\_ is a reaper cum thresher put together to harvest, thresh and clean grains in one operation.

 (a) combines (b) harvester (c) thresher (d) cleaner

5. The conveying equipment used to transport bagged material is

 (a) Belt (b) screw (c) bucket (d) pneumatic

6. Pasteurization of milk is done at \_\_\_\_\_\_ C.

 (a) 50 (b) 72 (c) 90 (d) 110

7. \_\_\_\_\_\_\_\_ is an example of renewable energy.

 (a) wind (b) coal (c) natural gas (d) liquid fuel

8. Process of converting solid biomass fuel into a gaseous combustible gas is

 (a) Gasification (b) electrification (c) digestion (d) ingestion

9. Stanchion barn is also known as \_\_\_\_\_\_\_\_ barn.

 (a) loose house (b) general purpose (c) open air (d) lofing

10. Stanchion barn is also known as \_\_\_\_\_\_\_\_ barn.

 (a) loose house (b) general purpose (c) open air (d) lofing

PART - B (5 x 2 = 10 Marks)

11. Indicate the importance of agricultural engineering in global scenario?

12. Define traction.

13. Name the unit operations done in agricultural processing.

14. Differentiate solar thermal and solar photovoltaic.

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) Explain about watershed management in detail. (16)

17. (a) Describe secondary tillage equipment with necessary diagram. (16)

Or

(b) Explain the pumps that are used in agricultural operations in detail. (16)

18. (a) Discuss the different packing methods of agricultural produces. (16)

Or

 (b) Explain any two material handling equipments with neat sketch. (16)

19. (a) Describe gasification of bio mass with necessary sketch. (16)

Or

 (b) Discuss the agricultural waste utilization methods in detail. (16)

20. (a) Discuss about farm stead and farm roads in detail. (16)

Or

(b) Explain any two types of poultry house with neat sketch. (16)