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Question Paper Code: 95A02

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2024

Fifth Semester

Agriculture Engineering

19UAG502 – AGRICULTURAL FARM MACHINERY

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. In disc harrow, the penetration of disc improves by: CO1- U
(a) Increasing disc angle (b) Lowering hitch point (c) 67.2 m³ (d) 67.2 ha
2. In animal drawn implements work output/ day in the range of CO1- U
(a) 0.3-0.4 ha (b) 0.4-0.5 ha (c) 0.5- 0.6 ha (a)0.6-0.7 ha
3. _____ weeder is useful for uprooting and burying weeds in line CO1- U
planted rice fields in wetlands.
(a) Power (b) Mono (c) Duster (d) Cono
4. In which process of seeding, the seeds are placed in the holes made in CO1-U
the seed bed and covering them.
(a) Broadcasting (b) Transplanting (c) Dibbling (d) Drilling
5. _____ cuts the soil with the blade to a shallow depth of 2-3 cm CO1-U
(a) junior hoe (b) hoe (c) hand hoe (d) shovel
6. Spraying using drones is _____ spraying. CO1-U
(a) Aero (b) Arial (c) Jet (d) all of the above
7. A machine used for harvesting of grasses and forage crops is _____ CO1-U
(a) Reaper (b) Binder (c) Mower (d) Combine
8. This is not a part of a Thresher _____ CO4- U
(a) Spike tooth (b) Cutter bar (c) shovel (d) reel

9. _____ are the testing enters that have published standards on machine/components for different agricultural machines. CO5- U
- (a) ISO (b) BIS (c) NCAM (d) all the above.
10. _____ is an aspect covered under the discipline of ergonomics. CO5- U
- (a) ease (b) comfort (c) safety (d) none of the above

PART – B (5 x 2= 10Marks)

11. What are the objectives of tillage? CO1-U
12. Explain the working principle of sugarcane planter. CO1-U
13. What are the types of nozzles used? CO1-U
14. What are the different types of mowers used in the country? CO1-U
15. What are the factors to be considered for the selection of tractor? CO5- U

PART – C (5 x 16= 80 Marks)

16. (a) Discuss the farm mechanization operation in detail. CO2-App (16)
- Or
- (b) What is meant by tillage? Explain in detail about the primary and secondary tillage. CO1-U (16)
17. (a) What is calibration of seed drill? Describe the process of calibration of seed cum fertilizer drill? CO2-U (16)
- Or
- (b) What are the factors affecting perfect sowing? Explain the different types of sowing methods CO2-U (16)
18. (a) Analyze and determine the particle size distribution of spray nozzle. CO3-App (16)
- Or
- (b) Explain about different types of duster with neat sketch CO2- App (16)
19. (a) Discuss elaborately about the Combine harvester types, its construction and working? CO1- U (16)
- Or
- (b) What is a mower? In detail discuss about classification of mower. CO1- U (16)

20. (a) Explain the procedure of testing and standard code for testing of tractor performance. CO2- App (16)

Or

(b) What are the factors considered for the selection of farm machines. CO1- U (16)

