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Question Paper Code: 55A03

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

Fifth Semester

Agriculture Engineering

15UAG503 - PLANT PROTECTION AND HARVESTING EQUIPMENTS

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Mechanical manipulation of soil to provide favourable condition for proper crop growth is called CO1- R
(a) tillage (b) soil conditioning (c) graveling (d) all the above
2. The working angle of a hand hoe varies between_____. CO1- R
(a) 70-80⁰ (b) 60-70⁰ (c) 80-90⁰ (d) 90-100⁰
3. Foliar spraying is done on the _____ of plants. CO2- R
(a) Root (b) Leaves (c) Stem (d) Flowers
4. The expansion of NMD is _____. CO2- R
(a) Numerical mean diameter (b) Non mean diameter
(c) Number mean distance (d) Number mean diameter
5. The length of bund to be constructed in an area depends on_____. CO3- R
(a) Horizontal Interval (b) Vertical Interval (c) Bottom width of bund (d) all the above
6. A vertical conveyor reaper cans harvest_____. CO3- R
(a) Wheat crop only (b) Grasses only
(c) Wheat and grasses (d) Wheat and shrubs

7. A combine harvester can perform _____ . CO4- R
 (a) Harvesting of crops only (b) Threshing of crops only
 (c) Both harvesting and threshing (d) Harvesting, threshing and packaging
8. Hedge Shear is a _____ equipment CO4- R
 (a) Pruning (b) Cutting (c) Shearing (d) All of these
9. Broadcasting is done for _____. CO5- R
 (a) Plucking of seeds (b) Spraying of seeds
 (c) Sowing of seeds (d) Planting of seeds
10. The reversible plough covers _____ when compared to other CO5- R
 type of ploughs.
 (a) Less area (b) More area (c) Equal area (d) Minimum area

PART – B (5 x 2= 10Marks)

11. Define a cono weeder CO1- R
12. Differentiate sprayer from duster and give examples for both. CO2- U
13. Differentiate between a thresher and harvester. CO3- R
14. Enumerate the various forest machinery utilized for cutting CO4- R
15. Enlist the role of a seed drill in farming operations. CO5- U

PART – C (5 x 16= 80Marks)

16. (a) Describe about the weeding techniques, types of weeding CO1- U (16)
 equipments
 Or
 (b) Elucidate the procedure involved in selection, construction and CO1- U (16)
 adjustments made for different intercultural equipments.
17. (a) Classify sprayers with neat sketches. CO2- Ana (16)
 Or
 (b) Examine the process of atomization and the role of an atomizer in CO2- Ana (16)
 spraying process.
18. (a) Explain about the Principles and types of cutting mechanisms CO3- U (16)
 Or
 (b) What are reaper binders and forage harvesters? Explain in detail CO3- U (16)

19. (a) What is thresher, its types and working principle? Explain with neat illustrations CO4- Ana (16)
- Or
- (b) What is fruit harvesting, its principle? Explain about fruit harvesting in trees and other fruit harvesting techniques CO4- Ana (16)
20. (a) Discuss elaborately about the pneumatic planter and reversible plough. CO5- U (16)
- Or
- (b) Discuss elaborately about various equipments used for paddy cultivation. CO5- U (16)

