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

Fifth Semester										
Agriculture Engineering										
21UAG502 – FARM MACHINERY AND EQUIPMENT										
(Regulations 2021)										
Dura	ation: Three hours		Maximum: 100 Marks							
Answer ALL Questions										
PART A - $(10 \times 1 = 10 \text{ Marks})$										
1.	Which harrow is known as knife harrow?			CO2- App						
	(a) Patela (b	o) Spring tooth harrow	(c) Triangular harrov	v (d) Acme harrow						
2.	How much percent of farm holding belong to small and marginal farmers?									
	(a)75%	(b) 25%	(c) 64%	(d) 36%						
3.	What is the field of	What is the field capacity of a potato planter (semi-automatic)? CO1- U								
	(a) 0.15-0.25 ha/h	r (b) 0.10-0.14 ha/hr	(c) 0.40-0.55 ha/hr	(d) 0.09-0.14 ha/hr						
4.	In which process of seeding, the seeds are placed in the holes made in seed bed and coveringthem?									
	(a) Broadcasting	(b) Transplanting	(c) Dibbling	(d) Drilling						
5.		nich part of power sprayer is used to break the liquid into desired spray d deliver to plants?								
	(a) Boom	(b) Nozzle	(c) Strainer	(d) Pressure gauge						
6.	Hand atomizer is	used for spraying in		CO1- U						
	(a) orchard	(b) field crop	(c) nursery	(d) forests						
7.	A two-bladed flywheel type forge cutter rotates at 50 rev/min at a feed rate of 1.26 m/min. What will be the theoretical length of cut of forge?									
	(a) 0.0126 m	(b) 0.2598 m	(c) 0.3232 m	(d) 0.1234 m						
8.	A multi-crop thresher is used for threshing CO1- U									
	(a) Wheat	(b) Paddy (c) Soyabean (d) All are		(d) All are correct						

9.	farmer should not be more than						
	(a) I	$HR_{max} = 220$ -age	(b) HR_{max} =250-age	(c) $HR_{max} = 230$ -age	(d) HR _{max}	= 200-age	
10.	is an aspect covered under the discipline of ergonomics.						
	(a) ease (b) comfort (c) safety (d) none					f the above	
			PART - B (5 x	2= 10Marks)			
11.	Exp	lain draft and side	in draft and side draft?				
12.	Maximum yield of maize attained with a population of 50000 plants per hectare. The rows are 150 cm apart and on average emergence of 85% is expected. How many seeds per hill should be planted if hills are 150 cm apart?						
13.	List out the functions of sprayers						
14.	List out the factors to estimate threshing efficiency.						
15.	List		CO1 -U				
			PART - C (5	x 16= 80Marks)			
16.	(a) Explain about components of Mould board plough with the help CO1-U of a diagram.						
	4.		Or		G 0.1	-U (16)	
	(b) Write short notes on cultivator and explain briefly mounted type CO1-cultivator with neat sketch.						
17.	(a) What are the factors affecting perfect sowing? Explain the CO1-different types of sowing methods. Or						
	(b)	_					
18.	(a)	neat sketch.				-U (16)	
	(b)	Or (b) Describe about the types of long handle weeding equipments with CO1-neat sketch.					
19.	(a)	(a) Explain mower and discuss about classification of mower. CO1-Or				-U (16)	
	(b)	(b) With the help of diagram explain about the components of power CO1-thresher and different types of threshing cylinder.					

20. (a) Explain the term of anthropometry. CO1-U (16)
Or
(b) List the factors considered for the selection of farm machines? CO1-U (16)