	-												
Α	Reg. No. :												
Question Paper Code: R8A65													
B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2024													
One Credit													
Agricultural Engineering													
R21UAG865 – COMMERCIAL BEEKEEPING													
(Regulations 2021)													
Duration: 1.30 hours Maximum: 50 Marks													
Answer ALL Questions													
PART A - $(10 \times 1 = 10 \text{ Marks})$													
1.													
	(a) Bee veil				(c) High boots (d) None					e of	the a		
2.	Wax gland is presen												1 -U
	(a) Queen bee	b) Worker be	ee	(a) Q	ueen	bee		(b)	Wor	ker l	bee		
3.		ollowing bee species are dome							CO1 -U				
	(a) Indian bee (b) Little bee (c) Rock bee					(d) All the above							
4.	Amongst honey bee, the workers are											1 -U	
		Male	(c) Both	ı femal	es an	d ma	les	(d)	Herr	napł	nrodi	tes	
5.	Nature of honey is							( )		I			1 <b>-</b> U
	-	Alkaline	(c) Neu	tral		(d) '	Turn	basi	c aft	er a	few (	days	
6.	(a) Acidic(b) Alkaline(c) Neutral(d) Turn basic after a few daysWhere is the wax glands situated in a worker bee?CO1						1 <b>-</b> U						
	(a) $4^{th} - 8^{th}$ abdominal segments (b) $4^{th} - 5^{th}$ abdominal segments												
	(c) $4^{\text{th}} - 7^{\text{th}}$ abdominal segments (d) $4^{\text{th}} - 6^{\text{th}}$ abdom						dome	enina	al seg	gmer	nts		
7.									-	-		CO	1 <b>-</b> U
	(a) Karl von Frisch	(b) Langstrot	-				(d) Newton						
8.	Shape of the Queen							CO	1 <b>-</b> U				
	(a) Irregular shape			(c)	) Squ	are s	hape	(	d) Bo	oth (	a) an	d (b)	)

9.	Whi purp	e	CO1 -U					
	(a) (	Ovipositor	(b) Wax gland					
	(c) I	Mandibular gland	(d) Mouth parts					
10.	Whi	ich types of mouth parts are present in wo	CO1 -U					
	(a) Biting and chewing		(b) Piercing and sucking					
	(c) Chewing lapping		(d) Chewing sucking					
$PART - B (2 \times 20 = 40 Marks)$								
11.	(a)	Give detail about brood and adult dis their management	seases of honey bees and	CO1 -U	(20)			
Or								
	(b) Differentiate the morphological and internal differences of three castes of honey bees?		CO1 -U	(20)				
12.	(a) Differentiate the morphological and internal differences of three castes of honey bees?			CO2 -App	(20)			
Or								
	(b)	Calculate the benefit cost ratio analysis	of 50 bee hives apiary	CO2 -App	(20)			