CBCS Scheme

	USN	1		15BT35	
	USIN	1	To LG Ave B. F. Dogwoo Evamination, Dec 2017/Jan.2	2018	
		Third Semester B.E. Degree Examination, Dec.2017/Jan.2018			
			Cell Biology and Genetics		
	Tim	ne. 3	3 hrs. Max	. Marks: 80	
	1 111	1C. J		dule	
			Note: Answer FIVE full questions, choosing one full question from each me	inic.	
			Module-1		
tice	1	a.	Explain the Singer and Nicolson model and discuss why this model is a	ccepted one to	
prac			describe the structure of plasma membrane.	(10 Marks) (06 Marks)	
ompulsorily draw diagonal cross lines on the remaining blank pages. appeal to evaluator and /or equations written eg, $42+8=50$, will be treated as malpractice.		b.	Briefly explain the differences between plant and animal cells.	(00 Marks)	
d as			OR		
eate	2	a.	What are Microfilaments? Describe their structure and functions.	(10 Marks)	
es. e tr	_	b.	Briefly explain the cytoplasmic micro trabecular system / lattice.	(06 Marks)	
pag /ill b			Module-2		
ank 0, v	3	a.	What is Melosis? Describe the various stages of melosis with diagrams a	and explain the	
g bl	5	a.	significance of melosis	(10 Marks)	
inin 12+8		b.	Endonlessuic reticulum Vaculoles.	(06 Marks)	
ems			$\langle \langle \hat{O} \rangle \rangle$		
the r	4	a.	Briefly explain the cell to cell integration methods in plants and animal cells.	(08 Marks)	
on writ	-	b.	. O Deie fler explain the role of cashases in programmed cent	leath. (08 Marks)	
ines			Madule-3		
oss l quati	_		End in the Law of Sogregation and the Law of Independent Assortment with	n examples.	
al cr	5	a.		(10 Marks) (06 Marks)	
gons nd/pu		b.	. What is Gene Interactions? Explain with one example.	(00 Marks)	
dia or a			\sim OR \sim \sim		
Iraw	6	a.	Explain the classical experiments that led to the discovery of DNA as genetic	e material.	
ily c	U	α.		(10 Marks) (06 Marks)	
ılsor al tc		b	. Briefly explain multiple alleles and group antigens.	(00 1/111113)	
mpr			Module-4	1	
s, co	7	a		e chromosomes	
wers			iv) Human chromosomes.	(12 Marks) (04 Marks)	
ans		b	Explain Inbreeding and Heterosis.	(04 Marks)	
our ider	3		OR		
ng)	5 20 5	R a	a. Explain Population Genetics and Hardy – Weinberg law.	(10 Marks)	
pleti	Tage of the same o		Define Mutation. Differentiate Induced and Spontaneous mutations.	(06 Marks)	
moc			Module-5	70 cs.	
On (Amy	9 a	$Z = \frac{1}{2} $	with examples.	
∹ ∈	4	9 0	a. Explain in oriel AX = X1, AX X0, 2 == 91	(98 Marks)	
ote:		ŀ	b. Discuss sex linked inheritance and add a note on colour blindness and hemo	phina. (od marks)	
r Z			OR	Carried Cal	
orta	1	10 a	a. Briefly discuss Bridges work as a proof of Chromosomal theory of inherita	nce. (08 Marks)	
Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.	,		b. Write short notes on: i) Chromosomal maps ii) Interference and Coince	(08 Marks)	

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