Reg.	No.																	
------	-----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

FOURTH SEMESTER B.Sc. DEGREE (SUPPLEMENTARY/IMPROVEMENT) **EXAMINATION, MAY 2016**

(UG-CCSS)

Complementary Course

ZU 4C 07—GENETI	CS AND IMMUNOLOGY
(2013 A	Admissions)
Time : Three Hours	Maximum: 30 Weightag
I. Answer all twelve questions. Each question	n carries ¹ A weightage :
A Objective type questions :	
1 DNA finger printing technique wa	as introduced by:
(a) Kary Mullis.	(b) Alec Jeffreys.
(c) Ian Wilmut.	(d) H.G. Hhorana.
2 Monoclonal antibodies are produc	ced by:
(a) Plasma cells.	(b) Myeloma cells.
(c) Hybridoma cells.	(d) Leucocytes.
3 HIV has:	
(a) Double stranded DNA.	(b) Single stranded DNA .
(c) Double stranded RNA.	(d) Single stranded RNA.
4 A hereditary disease which is nev	er passed from father to son is:
(a) Y-chromosomal linked dis	sease.
(b) X-chromosomal linked dis	sease.
(c) Autosomal linked disease	
(d) None of these.	
B. Name the following:	
5 An individual in which a part of t	he body is male while the rest is female.
6 Cancerous growth of Connective	tissue.
7 Enzyme used for joining the cut	ends of DNA.

8 The process of formation of mRNA from DNA.

C. Fill up the blanks: 9 ______ is considered as" father of Human Genetics". 10 Gene for Sickle cell anaemia is located on chromosome number — 11 Blotting technique used for the analysis of Protein is ______ 12 Small pox vaccine was introduced by _____ $(12 \times \frac{1}{4} = 3 \text{ weig})$ II. Answer all *nine* questions: 13 Define Karyotype. 14 Explain Multiple sclerosis. 15 Write note on T cells. 16 Explain Eugenics. 17 What is Barr body? 18 Define Genetic Engineering. 19 What are Plasmids? 20 What is Metastasis? 21 Explain Translation. $(9 \times 1 = 9 \text{ we})$ III. Answer any five questions: 22 Distinguish between Primary lymphoid organs and Secondary lymphoid organs 23 Explain Sex determination in Bonellia 24 Describe Southern Blotting technique. 25 Explain Genic balance theory. 26 What is Polygenic inheritance? Give examples. 27 Explain Criss-cross inheritance with an example. 28 What are Vaccines? How they give Immunity to the body? $(5 \times 2 = 10)$,e)

IV. Answer any two questions:

- 29 Briefly explain different types of Cancer .Add a note on various theories about of cancer.
- 30 What are Antibodies? Explain the structure of IgG antibody.
- 31 Explain different types of immunity.