



**NAVRACHANA
UNIVERSITY**

a UGC recognized University

School: School of Science
Program/s: Biomedical Science
Year: 2nd **Semester:** 3rd
Examination: End Semester Examination
Examination year: December - 2021

Course Code: BM202 **Course Name:** Over view of Human Diseases
Date: 03/12/2021
Time: 08:30 am to 10:30 am

Total Marks: 40
Total Pages: 02

Instructions:

- Write each answer on a new page.
- Use of a calculator is permitted/not permitted: NA
- Any other relevant instructions if any: Provide neat and clean figure wherever necessary.

Q. No.	Details	Marks	CO	BT
Q.1	<p>Provide short answers to the following.</p> <ol style="list-style-type: none"> 1. Define autoimmunity. 2. Define clonal selection. 3. How does the fusion inhibitors help in the treatment of HIV infection? 4. Give one example of secondary immunodeficiency. 5. Which type of mutation is responsible for the onset of sickle cell anemia? 6. Define opportunistic infections. 7. What is "first line of defence" in terms of immunity? 8. Enlist the nutritional factors that play role in further aggravating the state of HIV infection. 9. Define rheumatoid factors. 10. How hydroxyurea helps in the treatment for sickle cell disease? 	<p>10 (1x10)</p>	<p>CO 1 CO 2 CO 3 CO 4</p>	<p>BT 1 BT 2</p>
Q.2	<p>Explain in brief.</p> <ol style="list-style-type: none"> 1. Define the asymptomatic stage of HIV infection. 2. Enlist the possible treatments of rheumatoid arthritis. 3. What is the role of CD4+ T cells and macrophages during the early HIV infection? 4. explain the role of bone marrow transplant treatment for sickle cell anemia. 5. what is the principle behind the formation of twisted long helical structure of hemoglobin in sickle cell disease? 6. what is the difference in the functionalities of B cells and T cells in terms of providing immunity? 	<p>Any 5 10 (2 x 5)</p>	<p>CO 2 CO 3 CO 4</p>	<p>BT 1 BT 2</p>

	7. What is the difference between primary immunodeficiency and secondary immune deficiency?						
Q.3	Match A with B and C			10	CO 1	BT 1	
		A	B		C	CO 2	BT 2
	1	Amyloid- beta protein	Synovial fluid		Treponema pallidum	CO 3	
	2	Tuberculin skin test	Widal test		Neisseria gonorrhoeae		
	3	Peyer's patch	Tangled protein adducts		Type III hypersensitivity		
	4	Chancre	Human immunodeficiency virus		CD4+ and CCR5		
	5	Gonorrhea	Delayed hypersensitivity reaction		atherosclerosis		
	6	Rheumatoid factors	spirochete		Helical fibers		
	7	Nucleotide reverse transcriptase inhibitors	Comptetitive advantage over lactic acid bacteria		Alzhemimer's disease		
	8	Deficiency of Vitamin D	HIV		Salmonella typhimurium		
	9	Ox-LDL	Protein folding		M. tuberculosis		
10	HbS	Fatty streak	Macrophage				
Q.4	Explain in detail. (Provide figures if necessary) any 2			10	CO 2		BT 1
	<ol style="list-style-type: none"> 1. Explain the significance of protein folding in case of sickle cell anemia. 2. Enlist possible drug treatments for HIV-AIDS with example. 3. Explain the role of autoimmunity during the onset of rheumatoid arthritis. 4. Explain the co-ordination between cell mediated and humoral immunity to fight infections. 			(5 x 2)	CO 3	BT 2	
					CO 4		

*****End of Question Paper*****