


**NAVVRACHANA
UNIVERSITY**
a UGC recognizes University

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

Course Code: BM201 **Course Name:** Medical Microbiology

Date: 01/12/2021

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
- Any other relevant instructions if any

		Marks	CO	BTL
Q.1	Provide short answers to the following. <ol style="list-style-type: none"> 1. Define bacterial systematics. 2. Define virulence factors. 3. What is the significance of inclusion bodies found in microorganisms? 4. Define phylogenetic classification of microbes. 5. What is an endoparasite? Give example. 6. Define a viroid. 7. What are the characteristics of a microbe to be considered as a pathogen? 8. Define innate immunity. 9. Define chronic infection. 10. What is the significance of capsule and slime layers in bacteria? 	10 (1 x 10)	CO1 CO2 CO4	BT1 BT2
Q.2	Explain in brief. Any 5 <ol style="list-style-type: none"> 1. What are the various growth phases of bacteria? Provide brief details for each. 2. What is the difference between the cell membrane composition of Gram negative and Gram positive microorganisms? 3. What are the major classes of Fungi? 4. What are the different routes through which viruses can enter host organisms. State examples for each. 5. How does specific immunity work against virus infection? 6. What are the major barriers of infection? 7. State any two parasitic infections with their target sites. 8. What is the difference between endo and ecto parasite. Give example. 	10 (2 x 5)	CO1 CO2	BT1 BT2

Q.3	Match A with B and C			10	CO3 CO4	BT1 BT2
	A	B	C			
1	Fimbriae	Cell-wall	Viable but non culturable			
2	Crenarchaeol	Outer cell membrane	O- antigen			
3	Gram positive bacteria	Adhesion	Virulence factor			
4	Spheroplast	Capsule and slime layer	Twitching motility			
5	Death phase	Conjugation	Pseudomurein			
6	Gram negative bacteria	Plasma membrane	Teichoic acid			
7	Pathogenicity	Peptide interbridge	Osmotic balance			
8	<i>Methanobacterium</i>	Secondary metabolite synthesis	Bio-films			
9	Stationary phase	Toxic waste accumulation	Archaea			
10	pilli	Lipopolysaccharide	Nutrient limitation			
Q.4	Explain in detail. (Provide figures if necessary) Any 2 1. Explain each phases of a bacterial growth curve. 2. Do you believe that its difficult to treat fungal infections? Explain 3. Describe in detail virus-host interaction. 4. Describe the lytic and lysogenic viruse life cyle with examples.			10 (5 x 2)	CO2 CO3 CO4	BT1 BT2

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