Enrollment No.

NAVRACHANA UNIVERSITY
a UGC recognized University

School: School of Science
Program/s: Biomedical Science
Year: 2nd **Semester:** III
Examination: End Semester Examination
Examination year: December - 2022

Course Code: BM201 **Course Name:** **Medical Microbiology**
Date: 02/12/2022
Time: 11:30 am to 1:30pm

Total Marks: 40
Total Pages: 3

Instructions:

- ➔ *Write each answer on a new page*
- ➔ *Draw neat and well-labelled diagrams wherever required*

Q. No.	Details	Marks	COs*	BTL#
Q.1	**Choose the correct option** 1. The aminoglycosides are a very active group of antibacterial agents, particularly against Gram-negative bacilli. Identify their mode of action from the list. A Disruption of cytoplasmic membrane function B Inhibition of bacterial cell wall synthesis C Inhibition of bacterial DNA gyrase D Inhibition of protein synthesis E Interference with bacterial folic acid metabolism 2. Many antiviral drugs act by inhibition of a viral DNA polymerase enzyme. Select the virus for which this class of drugs would be effective. A Cytomegalovirus B Influenza C Measles D Mumps E Rabies 3. A 35-year-old woman presented with a 3-day history of productive cough, breathlessness and rigors. She was treated empirically with intravenous vancomycin. What is the site of action of vancomycin? A cell membrane integrity B DNA synthesis C peptidoglycan cross-linking D protein synthesis via the 50S ribosomal subunit E RNA synthesis 4. What does Streptococcus pneumoniae cause? A. Boils, septicaemia, food poisoning, wound infections	**10**	**CO1** **CO2** **CO3** **CO4**	**BTL1,2,3**

	B. Tonsillitis, cellulitis, scarlet fever, septicaemia C. Pneumonia., otitis media, meningitis D. Endocarditis, dental caries 5.Which virus is known to cause cervical cancer? A. Papillomavirus B. Parvovirus C. Poxvirus D. Paramyxoviruses 6.What word describes a mutually beneficial relationship? A. Saprophytic B. Commensal C. Symbiotic D. Pathogenic 7.What does the protozoa plasmodia cause? A. Ringworm B. Malaria C. Dysentry D. Meningitis 8.Which of these causes AIDs? A. Rhabdoviruses B. Retroviruses C. Reoviruses D. Orthomyxoviruses 9. What type of antibiotics works by affecting cell wall synthesis? A. Beta-lactam antibiotics B. Tetracyclines C. Aminoglycosides D. Macrolides 10.Which of these is carried by mosquitos? A. Influenza B. Ebola type hemorrhagic fevers C. Dengue hemorrhagic fever D. Milkers nodule			
Q.2	**Answer the following in short.** **Any five** 1. What are the differences between gram positive and gram negative cell wall?Which one of the two has higher infection capability? 2. What kind of inter-relationship exists between bacteria, drug and host?Prepare a triangular diagram. 3. Differentiate between bacteriocidal and bacteriostatic antibiotics? 4. Describe the cytocidal effects of virus on the cell? 5. What are the key characteristics of fungal infections?Give any one	**10**	**CO1** **CO2** **CO3** **CO4** **CO5**	**BTL1,2,3 ,4,5**

	example. 6. Explain the parasitic mode of infection citing a suitable example of any one endoparasite.			
Q.3	**Answer the following in detail.** **Any four** 1. Describe in detail mechanisms of virus- host interaction for cell damage? 2. Provide detailed insight into the action of Beta Lactam antibiotic action and resistance mechanisms alongwith their suitable examples . 3. Give a detailed account of microlides and tetracyclines in control of bacterial infection. 4. Write a detailed note on malaria ? What characteristics of the parasite helps it escape the human immune system? Elaborate 5. Why are fungal infections hard to treat? What makes them so robust? What conditions in the body help them thrive and multiple? Giving examples of any two fungal infections explain the above points at length. 6. Compare and debate on the infection capabilities of a virus vs bacteria citing suitable examples.	**20**	**CO4** **CO5** **CO6**	**BTL4.5.6**

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