

## COURSE OBJECTIVES AND COURSE OUTCOMES

T. Y. B. Sc. SEMESTER - V

MICROBIOLOGY PAPER - II

SUBJECT: MEDICAL MICROBIOLOGY & IMMUNOLOGY - I (USMB502)

Sr. No.	Course Objectives	Course Outcomes
1)	To identify and categorize defense mechanisms of the human body	Understanding the potential of pathogens and the role played by the Immune System to develop immunity against them
2)	To identify and investigate infectious diseases of different systems of the human body viz Respiratory tract and Urinary tract infections and diseases of skin and gastrointestinal tract	Understanding etiology, cultural characteristics, pathogenesis, clinical features, laboratory diagnosis, treatment and prevention (diseases covered are TB, pneumonia, influenza, pharyngitis, cystitis, urethritis, herpes, leprosy, candidiasis, typhoid, dysentery (bacterial and amoebic), rota virus diarrhea)
3)	To explain and categorize the Immune system and its role in developing immunity, types of antigens, immunogenicity, antigenicity	Understanding structure of the immune system (organs) and its response to antigens  Understanding the responses shown by the immune system varied types of antigens thereby getting the knowledge of the structure of antigen and immunogen
4)	To explain and analyse antigen- Antibody reaction in In Vivo and In Vitro	Students gain knowledge of the importance of antigen - antibody reaction in the diagnosis of diseases
5)	To justify the role of various class of antibody and other factors (MHC, APC, Cytokine) in initiating the immune response.	Understanding the role played by different antibodies and other molecules in establishing humoral response
6)	To evaluate various antigen - antibody reactions for the diagnostic purposes	Students understand the working principles of serological diagnostic tests along with the significance

## COURSE OBJECTIVES AND COURSE OUTCOMES

### T. Y. B. Sc. SEMESTER - VI

### MICROBIOLOGY PAPER - II

### SUBJECT: MEDICAL MICROBIOLOGY & IMMUNOLOGY - II (USMB602)

Sr. No.	Course Objectives	Course Outcomes
1)	To illustrate the role of vector in transmitting diseases and (sexually transmitted diseases, diseases of nervous system)	Understanding the mode of transmission, preventative measures and laboratory diagnosis of vector borne and sexually transmitted disease and diseases of the Nervous system
2)	To categorize mode of action of antibiotics To analyze mechanisms of drug resistance To select and test the antibiotics for pathogens	Understanding the role of antibiotics working on the principle of selective toxicity to cure the disease and antibiotics resistant mechanism found among bacterial pathogens along with the testing methods to decide the therapy
3)	To classify types of immunity shown by the human body (humoral and cell mediated)	Understanding the coordinated roles played by T cells and B cells in establishing the immunity
4)	To classify types of vaccine as a part of prophylaxis	Understanding various mechanisms of "vaccine working" along with merits and demerits
5)	To study various blood group antigens	Understanding the role of isoantigens in blood transfusion and the importance of "testing" before transfusion to avoid serious reactions due to mismatched blood
6)	To study serum protein (complement) with respect to nomenclature and pathways	Understanding multiple roles of serum proteins (complement) in augmenting immunity