Topics for General Microbiology and Immunology (2nd Level clinical Pharmacy students) 2019-2020

1-	Genetic variations in bacteria
2-	Cell wall structure of bacteria, fungi, protozoa and algae
3-	Cell membrane structure in prokaryotes and eukaryotes
4-	Transcription process and the differences between prokaryotes & eukaryotes
5-	Fungi (morphology, taxonomy, reproduction and mycotoxins)
6-	Viruses (classifications, epidemiology, treatment and prevention)
7-	Detailed mechanisms of genetic transfer in prokaryotes
8-	Autotrophy versus heterotrophy in prokaryotes
9-	Bacterial, fungal and algal growth and reproduction
10-	Viruses (classification , nomenclatures, culture and multiplication)
11	Archaebacteria
12	Enumeration of bacteria
13	Accessory structures of bacteria (falgella, pili, axial filaments, glycocalyx, capsules and slime layer)
14	Replication and transcription in prokaryotes and eukaryotes
15	Types of vaccines
16	Role of various cells that constitute the immune system
17	Humoral immunity
18	Hypersensitivity reactions
19	Various types of immunodeficiency
20	Methods of detection of antibodies in serum samples
21	Immunological tolerance (types and mechanisms)
22	Complement (definition and pathways)
23	Detailed role of T cell subsets in immunity
24	Organ transplantations and rejection (types, mechanisms and treatment)
25	Autoimmunity and autoimmune diseases (types, mechanisms and genes involved)
26	Immunoglobulins
27	Types and roles of cytokines and chemokines in immunity
28	Innate immunity
29	Cell-mediated immunity
30	Types of antigens