

Assignment Topics

SI No	ENROLL NUMBER	36431-IMMUNOLOGY	36432- MEDICAL MICROBIOLOGY	36433-ENVIRONMENTAL AND AGRICULTURAL MICROBIOLOGY
1.	2022023640001	Basic concepts and terminologies in immunology	Introduction to Medical Microbiology	Environment and Ecosystems- Definitions
2.	2022023640002	Haematopoiesis.	Laboratory management	biotic and abiotic environment
3.	2022023640003	Immune system	Safety in containment laboratory	Environmental segments.
4.	2022023640004	primary lymphoid organs	Collection clinical samples.	Composition and structure of environment
5.	2022023640005	secondary lymphoid organs	transport of clinical samples.	Conservation and Management
6.	2022023640006	structure and functions and cells of immune system.	Microbiological examination of urine, blood	Concept of biosphere
7.	2022023640007	Innate immune system	Microbiological examination of faeces, cerebrospinal fluid	communities and ecosystems
8.	2022023640008	acquired immune system	Microbiological examination of throat swabs, sputum,	Ecosystem characteristics, structure and function.
9.	2022023640009	immune system- cells and molecules involves	Microbiological examination of pus and wound exudates	Food chains, food webs and trophic structures
10.	2022023640010	Cell mediated response	Normal flora of human systems- skin	Eutrophication- Definition, causes of eutrophication,
11.	2022023640011	humoral mediated response	Normal flora of human systems - respiratory tract	microbial changes in eutrophic bodies of water induced by various inorganic and organic pollutants.
12.	2022023640012	Role of Toll like receptors in innate immunity	Normal flora of human systems- gastrointestinal tract	Types of solid Waste, Treatment of solid wastes
13.	2022023640013	Maturation and Differentiation	Normal flora of human	composting, vermiform

		of T-cell	systems- genitourinary tract	composting
14.	2022023640014	Maturation and Differentiation of B-cell	Nosocomial infections	saccharification and gasification.
15.	2022023640015	T-cell receptors	Bacterial diseases	Types of liquid Waste, Treatment of liquid wastes
16.	2022023640016	Characteristics and functions of cytokines	Gram Positive & Negative Cocci Disease	primary, secondary and tertiary treatment-
17.	2022023640017	Characteristics and functions of haemokines	Pharyngitis	anaerobic (methanogenesis), aerobic,
18.	2022023640018	Immunoglobulins- class	Pneumonia	trickling, activated sludge and oxidation pond.
19.	2022023640019	Immunoglobulins- subclass	Gram Negative Cocci Disease - Gonorrhea	Microbiology of degradation of xenobiotics (heavy metals) in the environment
20.	2022023640020	Immunoglobulins genes	nocardiosis	ecological considerations, decay behaviour
21.	2022023640021	Generation of antibody diversity	diphtheria	biomagnifications, degradative plasmids
22.	2022023640022	Immunogenicity- Immunogens, adjuvants, epitopes, haptens and carriers	Gram positive spore forming bacilli-	substituted hydrocarbons
23.	2022023640023	T dependent and T independent antigens	anthrax	Global environmental problems- Ozone depletion
24.	2022023640024	Strength of antigen-antibody interactions	Tetanus (Lockjaw).	Global environmental problems- UV-B
25.	2022023640025	Strength of antigen-antibody interactions- affinity, avidity, valency.	pertussis	acid rain, their impact and biotechnological approaches for management
26.	2022023640026	Complement systems- mode of activation	Yersiniosis.	Containment of acid mine drainage applying biomining
27.	2022023640027	Complement systems -classical pathway	Vibriosis	Soil as an environment for microorganisms

28.	2022023640028	Mechanisms of antigen processing and presentation	Salmonellosis	Classification of soil
29.	2022023640029	cytosolic pathways	Acid fast bacteria	physical and chemical properties of soil
30.	2022023640030	Antibody engineering	tuberculosis	structure of soil
31.	2022023640031	Major histocompatibility complex (MHC)	leprosy	Microbial interactions between plants
32.	2022023640032	MHC - structure	Cell wall less bacteria - pneumonia	phyllosphere, mycorrhizae
33.	2022023640033	Hypersensitivity reactions	Leptospirosis.	rhizosphere and symbiotic association in root nodules.
34.	2022023640034	Type I of Hypersensitivity reactions	Influenza	Biogeochemical cycles - carbon
35.	2022023640035	Autoimmune disorders	Measles	Biogeochemical cycles - phosphorus
36.	2022023640036	Organ transplantation	Mumps	Biogeochemical cycles - sulfur
37.	2022023640037	HLA tissue typing	Chicken pox	Plant pathogens and classification of plant diseases
38.	2022023640038	Oncogenes	Hepatitis A, B, C, D & E	Host-pathogen recognition and specificity
39.	2022023640039	antioncogenes.	Poliomyelitis	Principles of plant infection
40.	2022023640040	Hybridoma and monoclonals	AIDS	entry of pathogen in to host
41.	2022023640041	Vaccine – Introduction	Human Papilloma virus	colonization of host
42.	2022023640042	Vaccine – types	Rabies	role of enzymes, toxins
43.	2022023640043	Live Vaccine	Yellow fever	growth regulatory substances.
44.	2022023640044	Attenuated vaccine	Dengue	Defense mechanisms in plants

45.	2022023640045	killed and DNA vaccines	Japanese Encephalitis	Defense mechanisms in plants - Structural and biochemical
46.	2022023640046	Stem Cells and its clinical application	SARS	Molecular aspects of host defense reactions
47.	2022023640047	Human pluripotent stem cells	Swine Flu	Lipoxygenase in the expression of disease resistance
48.	2022023640048	bone marrow, nerve cells	Superficial Mycoses	other enzymes in the expression of disease resistance
49.	2022023640049	heart muscle cells and pancreatic islet cells	Cutaneous Mycoses and Subcutaneous Mycoses	Mosaic disease of tobacco,
50.	2022023640050	MHC - its interaction with peptide.	Systemic mycosis, Opportunistic Mycoses and Mycotoxicosis	Bunchy top of banana
51.	2022023640051	Complement systems - alternate pathway	Amoebiasis	Bacterial blight of paddy
52.	2022023640052	endocytic pathways	Malaria	Grassy shoot of sugar cane.
53.	2022023640053	Strength of antigen-antibody interactions- agglutination and precipitation.	Classification of antibiotics based on mode of action- antibacterial (Penicillin)	Plant disease management- exclusion, evasion
54.	2022023640054	Immunoglobulins- structure and fuction	Classification of antibiotics based on mode of action- antiviral (Amantidine)	Plant disease management- eradication, crop rotation
55.	2022023640055	Immunoglobulins- Organization and expression	Classification of antibiotics based on mode of action- antifungal (Amphotericin)	Sanitation - physical, chemical
56.	2022023640056	Type III of Hypersensitivity reactions	Classification of antibiotics based on mode of action- antiparasitic drugs (Quinine and Metraindazole).	Sanitation - biological control
57.	2022023640057	B-cell receptors	Emerging and re-emerging infections -Chickungunya,	Plant disease forecasting

			Zika virus	
58.	2022023640058	Type IV of Hypersensitivity reactions	Emerging and re-emerging infections - H1N1 and Ebola	Global environmental problems- green house effect
59.	2022023640059	Type II of Hypersensitivity reactions	National programmes in prevention of infectious diseases.	Biotechnological approaches to disease management.
60.	2022023640060	Basic concepts and terminologies in immunology	Introduction to Medical Microbiology	Environment and Ecosystems- Definitions
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70.	2022023640070	humoral mediated response	Normal flora of human systems - respiratory tract	microbial changes in eutrophic bodies of water induced by various inorganic and organic pollutants.
71.	2022023640071	Role of Toll like receptors in innate immunity	Normal flora of human systems- gastrointestinal tract	Types of solid Waste, Treatment of solid wastes

72.	2022023640072	Maturation and Differentiation of T-cell	Normal flora of human systems- genitourinary tract	composting, vermiform composting
73.	2022023640073	Maturation and Differentiation of B-cell	Nosocomial infections	saccharification and gasification.
74.	2022023640074	T-cell receptors	Bacterial diseases	Types of liquid Waste, Treatment of liquid wastes
75.	2022023640078	Characteristics and functions of cytokines	Gram Positive & Negative Cocci Disease	primary, secondary and tertiary treatment-
76.	2022023640079	Characteristics and functions of haemokines	Pharyngitis	anaerobic (methanogenesis), aerobic,
77.	2022023640080	Immunoglobulins- class	Pneumonia	trickling, activated sludge and oxidation pond.
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80.	2022023640083	Generation of antibody diversity	diphtheria	biomagnifications, degradative plasmids
81.	2022023640084	Immunogenicity- Immunogens, adjuvants, epitopes, haptens and carriers	Gram positive spore forming bacilli-	substituted hydrocarbons
82.	2022023640085	T dependent and T independent antigens	anthrax	Global environmental problems- Ozone depletion
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86.	2022023640089	Complement systems -classical pathway	Vibriosis	Soil as an environment for microorganisms
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91.	2022023640094	MHC - structure	Cell wall less bacteria - pneumonia	phyllosphere, mycorrhizae
92.	2022023640095	Hypersensitivity reactions	Leptospirosis.	rhizosphere and symbiotic association in root nodules.
93.	2022023640097	Type I of Hypersensitivity reactions	Influenza	Biogeochemical cycles - carbon
94.	2022023640098	Autoimmune disorders	Measles	Biogeochemical cycles - phosphorus