

UNIVERSITY OF JAMMU

(NAAC ACCREDITED A++ GRADE UNIVERSITY)
Baba Sahib Ambedkar Road, Jammu-180006 (J&K)

Email: academicsectionju14@gmail.com

NOTIFICATION **(26/july./Adp/33)**

It is hereby notified for the information of all concerned that the Vice-Chancellor, in anticipation of the approval of the Academic Council, has been pleased to authorize the adoption of the Syllabi of **2nd Prof. of Bachelor of Medicine and Bachelor of Surgery (MBBS)** for the Examinations to be held in the years 2025, 2026, 2027 and onwards (as given in Annexure):-

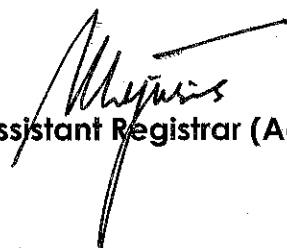
The Syllabi of the courses is available on the University Website:
www.jammuuniversity.ac.in

-Sd-
Dean Academic Affairs

No. F.Acd/III/26/3609-28
Dated: - 10/07/2026

Copy for information & necessary action to:-

1. Principal & Dean, Faculty of Medical Science
2. Sr. P.A to the Controller of Examination.
3. Principal, ASCOMS, Sidhra, Jammu
4. All Members of the concerned Board of Studies.
5. C.A to C.E
6. Joint/Deputy/Assistant Registrar (Exams. Prof. /Confidential/ Evaluation Prof.)
7. Office copy.


Assistant Registrar (Academic)

Annexure B(1)

2nd PROFESSIONAL MBBS 2024-25, 25-26 PART-1
(PHASE II & PHASE-III to be held in the year 2024-2025, 2025-2026)

Subject: Microbiology
Course No: Part-1 MBMICR0001, Part-2 MBMICR0002
Code: MI
Duration: 3 hours

Maximum marks: 200
Theory: Paper-I: 100
Paper-II: 100

Subject: Microbiology Theory / Practical

Based on NMC, Competency based undergraduate curriculum for the Indian Medical Graduate,
2024(Page Nos. 131-139)

Total Teaching hours:- 228

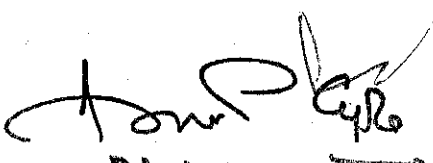
Lectures (Hours) :- 75

Self Directed Learning (Hours) :- 10

Clinical Postings (Hours):- NA

Small Group Teachings /Tutorials / Integrated Teaching / Practical's (Hours):- 143

Competency Number	Topics & Sub-Topics
Topic 1: General Microbiology, Ethics & Communication	
MI 1.1	Discuss notable historical events, scientific developments and contributions of key scientists in the evolution of medical microbiology. Discuss the role of microbes in health and disease
MI 1.2	Describe basic morphology, physiology/characteristics, classification and common infections /diseases caused by bacteria, viruses, fungi and parasites.
MI 1.3	Describe the basic principles of molecular biology and the concept and significance of studying molecular genetics. Discuss molecular techniques applied to disease diagnosis in clinical microbiology.
MI 1.4	Describe the laboratory methods used to detect causative agents of infectious diseases.
MI 1.5	Discuss the appropriate method of collecting and transporting samples to detect microbial agents, including instructions to be given to patients before sample collection.
MI 1.6	Discuss the appropriate method of collection and transport of samples for the detection of microbial agents including instructions to be given to patients before sample collection.
MI 1.7	Discuss the attitude & behaviors that portray respect & demonstrate respect for patient samples sent to the laboratory for performance of laboratory tests in the detection of microbial agents causing Infectious diseases.
MI 1.8	Discuss and demonstrate effective communication skills with patients, relatives and clinicians during sample collection and pre/posttest counseling
MI 1.9	Discuss & demonstrate confidentiality pertaining to patient identity in laboratory results


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Annexure B(2)

2nd PROFESSIONAL MBBS 2024-25, 25-26 PART-1
(PHASE II & PHASE-III to be held in the year 2024-2025, 2025-2026)

Subject: Microbiology
 Course No: Part-1 MBMICR0001, Part-2 MBMICR0002
 Code: MI
 Duration: 3 hours

Maximum marks: 200
 Theory: Paper-I: 100
 Paper-II: 100

MI 1.10	Perform Gram stain, ZN stain, and routine stool examination to identify the different causative agents of infectious diseases from the clinical specime
MI 1.11	Describe the epidemiological basis of infectious diseases and their application.
MI 1.12	Classify and describe the different methods of sterilization and disinfection. Discuss the mechanism of action, application and quality control of different methods in the laboratory and in clinical and surgical practices.
MI 1.13	Choose the most appropriate method of sterilization and disinfection to be used in specific situations in the laboratory, in clinical and surgical practice.
Topic 2 : Basic Immunology & Immunological disorders	
MI 2.1	Explain the role of immunological mechanisms in health and disease (innate and acquired immunity).
MI 2.2	Describe the structure and functions of immune system and its components (antigens, antibodies and complement systems).
MI 2.3	Describe the host immune responses in Microbial infections (humoral and cellular immune response).
MI 2.4	Explain the immune response in different types of infections (bacterial, mycobacterial, viral, fungal and parasitic infections)
MI 2.5	Discuss the principles and applications of laboratory tests used in diagnostic microbiology based on the host's immune response.
MI 2.6	Discuss the immunological basis of disease prevention through active and passive immune prophylaxis. Discuss the importance of herd immunity in prevention and control of infectious disease in community.
MI 2.7	Describe the immunological mechanisms in immunological disorders (hypersensitivity, autoimmune disorders and immunodeficiency states) and discuss the laboratory methods used in their detection.
MI 2.8	Describe the immunological mechanisms involved in transplantation, tumour immunity and their applications in disease management.
Topic 3: CVS and Blood	
MI 3.1	Describe the etio pathogenesis, clinical features, complications/sequelae and laboratory diagnosis of rheumatic fever.
MI 3.2	Describe the classification etio-pathogenesis, clinical features of Infective endocarditis (IE).
MI 3.3	Discuss the diagnostic modalities of IE available with special emphasis on concept of sepsis and blood culture collection & processin
MI 3.4	Diagnose a clinically suspected case of rheumatic fever/IE based on the findings of various microscopic, serological and culture investigations.
MI 3.5	Define & describe types of Pyrexia of unknown origin (PUO). Discuss the etio-pathogenesis and diagnostic modalities available to rule out infective causes of PUO.

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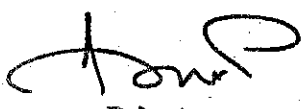
Annexure-B(3)

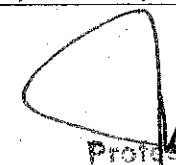
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Subject: Microbiology
 Course No: Part-1 MBMICR0001, Part-2 MBMICR0002
 Code: MI
 Duration: 3 hours

Maximum marks: 200
 Theory: Paper-I: 100
 Paper-II: 100

MI 3.6	Classify & describe the enteric fever pathogens. Discuss the evolution of the clinical course, pathogenesis, complications, laboratory diagnosis and prevention of enteric fever
MI 3.7	Choose the most appropriate laboratory test in a suspected case of enteric fever based on the duration of illness and in a suspected case of carrier.
MI 3.8	Read and interpret the results of various laboratory investigations in a suspected case of enteric fever with special emphasis on serological test results.
MI 3.9	Enumerate the common infective causes of anaemia and describe the mechanisms involved in causing anaemia by them.
MI 3.10	Describe the morphology, life cycle, pathogenesis, laboratory diagnosis, prevention and control of the common parasites causing anaemia
MI 3.11	Describe the morphology, life cycle, pathogenesis, clinical presentation, laboratory diagnosis and prevention of hemoparasites commonly prevalent in India (e.g. causing kala-azar, malaria, filariasis etc.)
MI 3.12	Differentiate agents of malignant malaria from agents of benign malaria reported in peripheral blood smear examination/ serology and explain its clinical significance.
MI 3.13	Describe the epidemiology, the etio- pathogenesis, evolution complications, opportunistic infections, diagnosis, prevention and the principles of management of HIV
Topic 4: Gastrointestinal and Hepatobiliary system	
MI 4.1	Define and differentiate between diarrhea, dysentery and food poisoning. Enumerate the microbial agents causing them.
MI 4.2	Describe the epidemiology, morphology, pathogenesis, clinical features and diagnostic modalities of bacterial, viral, parasitic and fungal agents causing diarrhoea.
MI 4.3	Describe the epidemiology, morphology, pathogenesis, clinical features and diagnostic modalities of bacterial, viral, parasitic and fungal agents causing dysentery
MI 4.4	Identify the common etiologic agents of diarrhoea and dysentery by stool microscopic examination.
MI 4.5	Enumerate the bacterial, viral, parasitic and fungal agents of food poisoning and discuss their pathogenesis, clinical course and laboratory diagnosis.
MI 4.6	Describe the infective aetiology, pathogenesis and clinical course of Acid peptic disease (APD) and Discuss the laboratory diagnosis and management of the causative agent of APD.
MI 4.7	Describe the epidemiology, etio-pathogenesis, clinical features and complications of viral hepatitis.
MI 4.8	Discuss the modalities in laboratory diagnosis, with special emphasis on viral


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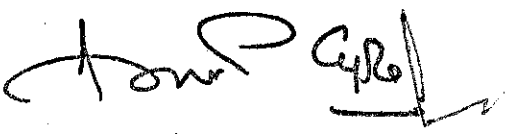
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(PHASE II & PHASE-III to be held in the year 2024-2025, 2025-2026)

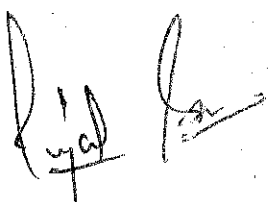
Annexure 8(4)

Subject: Microbiology
 Course No: Part-1 MBMICR0001, Part-2 MBMICR0002
 Code: MI
 Duration: 3 hours

Maximum marks: 200
 Theory: Paper-I: 100
 Paper-II: 100

	markers and preventive strategies for viral hepatitis caused by hepatitis viruses.
MI 4.9	Suggest the most appropriate laboratory test based on history and clinical presentation in a suspected case of viral hepatitis and interpret the type and progress of viral hepatitis based on the laboratory report of viral markers in a case of infection by hepatitis virus
Topic 5: Musculoskeletal system, Skin and Soft tissue infections	
MI 5.1	Enumerate the microbial agents causing anaerobic infections. Describe the pathogenesis, clinical course and the laboratory diagnosis of anaerobic infections.
MI 5.2	Explain the etio-pathogenesis, clinical course and the laboratory diagnosis of skin and soft tissue infections caused by bacterial, fungal, viral and parasitic agents.
MI 5.3	Explain the etio-pathogenesis, clinical course and the laboratory diagnosis of skin and soft tissue infections caused by bacterial, fungal, viral and parasitic agents.
MI 5.4	Differentiate between infective and non-infective lesions in the skin. Enlist microbes causing systemic disease with involvement of skin.
MI 5.5	Describe the etio-pathogenesis, clinical course, complications and laboratory diagnosis of myco-bacterial infections involving skin & soft tissue with special emphasis on sample collection from/of skin
Topic 6 Central Nervous System infections	
MI 6.1	Enumerate the microbial agents causing meningitis. Explain the pathogenesis, clinical course and laboratory diagnosis of meningitis caused by bacterial, fungal, viral and parasitic agents.
MI 6.2	Enumerate the microbial agents causing encephalitis Explain the pathogenesis, clinical course and laboratory diagnosis of encephalitis caused by bacterial, fungal, viral and parasitic agents.
MI 6.3	Identify the microbial agents causing meningitis from a Gram stained given smear. Read & Interpret the microscopic findings and culture report of CSF to diagnose a case of bacterial, viral, fungal or parasitic infection in CNS
Topic 7: Respiratory tract infections	
MI 7.1	Explain the etio-pathogenesis, laboratory diagnosis and prevention of Infections of the upper respiratory tract caused by bacterial, viral, fungal and parasitic agents.
MI 7.2	Explain the etio-pathogenesis, laboratory diagnosis and prevention of Infections of the lower respiratory tract caused by bacterial, mycobacterial, viral, fungal and parasitic agents.
MI 7.3	Enlist & identify the etiological agents of lower respiratory infection in specific situations like age, immune status, community-acquired pneumonia, hospital-acquired pneumonia etc
MI 7.4	Identify the common etiologic agents of upper respiratory tract infections in a


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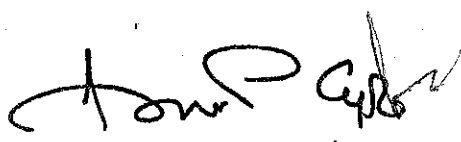
Annexure B (5)

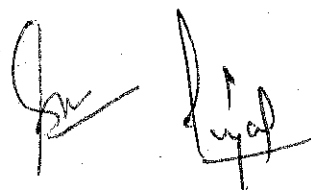
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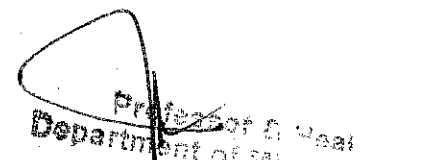
Subject: Microbiology
 Course No: Part-1 MBMICR0001, Part-2 MBMICR0002
 Code: MI
 Duration: 3 hours

Maximum marks: 200
 Theory: Paper-I: 100
 Paper-II: 100

	Gram Stain/ Albert stained smear of throat swab and correlate with the clinical findings provided
MI 7.5	Identify the common etiologic agents of lower respiratory tract infections in a provided Gram Stained & Acid fast stained smear of sputum/BAL/tracheal aspirate and correlate with the clinical findings provided
Topic 8: Genitourinary and Sexually Transmitted Infections	
MI 8.1	Describe the etio-pathogenesis and discuss the laboratory diagnosis of common bacterial, viral, fungal and parasitic infections of the genitourinary system
MI 8.2	Enlist common sexually transmitted infections (STI). Explain the pathogenesis, laboratory diagnosis and prevention of common bacterial and viral sexually transmitted infections.
MI 8.3	Explain the concept and utility of Syndromic management of STI.
MI 8.4	Explain etio-pathogenesis, clinical course, and the appropriate method for specimen collection, and discuss the laboratory diagnosis of different clinical and epidemiological types of urinary tract infections.
Topic 9: Zoonotic diseases and Miscellaneous	
MI 9.1	Define and classify Zoonotic infections. Explain etio-pathogenesis, vectors, clinical course, transmission, risk factors, laboratory diagnosis, and preventive & control strategies of different zoonotic infections caused by bacterial, viral, fungal and parasitic agents.
MI 9.2	Describe etio-pathogenesis and laboratory diagnosis of opportunistic infections (OI) along with factors predisposing to the development of OI by bacterial, viral, fungal and parasitic agents.
MI 9.3	Choose the most suitable microbiological investigation in a given clinical situation and Interpret the results of the laboratory tests for the diagnosis of the infectious disease
MI 9.4	Describe the etio-pathogenesis of infective causes of malignancy and explain the mechanisms used by oncogenic viruses in the development of virus-associated malignancies, along with their preventive measures.
MI 9.5	Describe the concept of emerging & re-emerging Infectious diseases. Explain the factors responsible for emergence and re-emergence of these disease and strategies for their prevention and control.
MI 9.6	Describe the National Health Programs in the prevention of common infectious diseases and discuss the National reference centers for disease diagnosis and control.
Topic 10: Healthcare-associated infections (HAI)	
MI 10.1	Enumerate different causative agents and the types of Healthcare Associated Infections (HAI). Define HAI and describe the chain of transmission and its role in preventing HAI.


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Annexure B (C)

2nd PROFESSIONAL MBBS 2024-25, 25-26 PART-1
(PHASE II & PHASE-III to be held in the year 2024-2025, 2025-2026)

Subject: Microbiology

Course No: Part-1 MBMICR0001, Part-2 MBMICR0002

Code: MI

Duration: 3 hours

Maximum marks: 200

Theory: Paper-I: 100

Paper-II: 100

MI 10.2	Describe the standard & transmission based precautions for infection control and the role of the hospital infection control committee (HICC) in the prevention of HAI
MI 10.3	Demonstrate hand washing, donning- doffing of PPE and segregation of Biomedical waste
MI 10.4	Describe the methods used and significance of assessing the microbial contamination of food, water and air (in hospital surveillance)
MI 10.5	Describe commonly detected drug-resistant microbes in HAI. Explain the mechanism of evolution, spread, and control of antimicrobial drug resistance in hospitalized patients.
Topic 11: Antimicrobial resistance (AMR) & Antimicrobial Stewardship (AMSP)	
MI 11.1	Describe the genotypic & phenotypic mechanisms of antimicrobial drug resistance and the methods of antimicrobial susceptibility testing, along with interpretation of the antimicrobial susceptibility testing report
MI 11.2	Explain intrinsic & acquired drug resistance along with the antimicrobial spectrum of important human pathogens and its application in clinical therapy.
MI 11.3	Explain the concept and application of the antimicrobial stewardship program including rational antimicrobial prescription and your role in its implementation.

AETCOM Module No:-	Topic and Sub Topic
2.1	The Foundations of Communications 2
2.8	What does it mean to be family members of Sick patient

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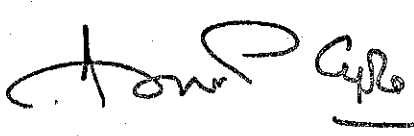
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PROFESSIONAL MBBS 2024.25, 25-26 PART-1**(PHASE II & PHASE-III to be held in the year 2024-2025, 2025-2026)****Subject: Microbiology****Course No: Part-1 MBMICR0001, Part-2 MBMICR0002****Code: MI****Duration: 3 hours****Maximum marks: 200****Theory: Paper-I: 100****Part-II: 100****Paper-wise distribution of topics for Prelim & Annual Examination Year: Second MBBS****Subject: MICROBIOLOGY**

Paper	Section	Topic
I	A	MCQs on all topics of the paper I
		General Microbiology, Immunology and Immunological Disorder
		CVS and Blood Stream Infections
		Gastrointestinal and Hepatobiliary system
		AETCOM Module No- 2.1
II	A	MCQs on all topics of the paper II
		Musculoskeletal system, skin and soft tissue infection
		Central nervous system infections
		Respiratory tract infections
		Genitourinary and sexually transmitted infections
		Zoonotic diseases and miscellaneous infections
		HAI and Antimicrobial Stewardship Hospital Infection Control.
		AETCOM Module No- 2.8


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Annexure 9

Suggested format for a Theory paper – Universities and colleges may design their unique question paper blueprint as per the principles given in the format		
Duration-3 hours		100 marks
	Type of question/ Number of questions	Marks per question
Q No 1	Scenario based MCQ/ 10-20	1-2
Q No 2	Long essay question/ ONE	10-12
Q No 3	Reasoning Questions/ FIVE	3
Q No 4	Short notes (applied aspects)/ FOUR All four subparts related to six integrated topics if subject is part of integrated modules. However, if a subject has less competencies in integrated module than atleast 2 sub-parts from integrated modules.	4-5
Q No 5	Short notes / THREE	5-6
Q No 6	Short notes / FOUR (one subpart of 5 marks from AETCOM)	4-5

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LOGBOOK CERTIFICATE (Sample)

This is to certify that the candidate Mr/ Ms
 , Reg No. , admitted in the
 year 2019-20 in the ----- Medical College, ----- has
 satisfactorily completed / has not completed all assignments / requirements mentioned in
 this logbook for first year MBBBS course in the subject(s) of Anatomy/
 Physiology/Biochemistry/Foundation Course/ AETCOM during the period from
 to She / He is / is not eligible to appear for the summative
 (University) assessment as on the date given below.

Signature of Faculty

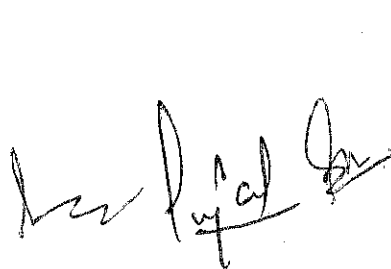
Name and Designation

Countersigned by Head of the Department

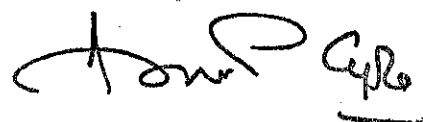
Principal/Dean of the College

Place:

Date:



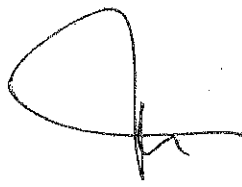
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GENERAL INSTRUCTIONS

- 1) The logbook is a record of the academic / co-curricular activities of the designated student, who would be responsible for maintaining his/her logbook.
- 2) The student is responsible for getting the entries in the logbook verified by the Faculty in charge regularly.
- 3) Entries in the logbook will reflect the activities undertaken in the department & have to be scrutinized by the Head of the concerned department.
- 4) The logbook is a record of various activities by the student like:
 - Overall participation & performance
 - Attendance
 - Participation in sessions
 - Record of completion of pre-determined activities.
 - Acquisition of selected competencies
- 5) The logbook is the record of work done by the candidate in that department / specialty and should be verified by the college before submitting the application of the students for the University examination.


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