JHARKHAND Rai University
RANCHI

PRACTICE SET

End Semester Examination, Dec 2025

Program: BPT

Semester: III

Course: Pathology and Microbiology

Course Code: 23A301

COURSE OUTCOME

CO 1: Understand the basics to general pathology and abnormal pathology of hematology and lymphoreticular tissues.

CO 2: Understand and Analyze the systemic pathology to various systems in the human body.

CO 3: Understand general microbiology, taxonomy, morphology and physiology and Learning methods of identification of bacteria, laboratory diagnosis of infection, sterilization and disinfection.

CO 4: Understand and remember the matters of bacteriology and virology.

CO 5: Understand and Analyze the clinical and applied pathology, microbiology to Various relevant diseases and infections.

Section A- (20x 5= 100 Marks)

No.	Question	CO	Bloom's Category	Unit (HOT/LOT
1	Define inflammation and describe its types.	(CO1)	Remember	Unit 1 LOT
2	Explain the process of cell injury and repair.	(CO1)	Understand	Unit-1 LOT

3	Classify tumors on the basis of their stages and mention differences between benign and malignant tumors.	(CO1)	Understand	UNIT-1 LOT
4	Describe the etio-pathogenesis of anemia.	(CO2)	Understand	UNIT-2 LOT
5	Write a short note on Ischemic heart disease (IHD).	(CO2)	Remember	UNIT-2 LOT
6	Discuss the pathology of bronchial asthma. With their prevention and Management.	(CO2)	Understand	UNIT-3 LOT
7	Explain the causes and pathological features of pneumonia.	(CO2)	Understand	UNIT-3 LOT
8	Explain the mechanism of wound formation and discuss how different factors (age, infection, nutrition, and blood supply) influence the wound healing process.	(CO2)	Understand	UNIT-1 LOT
9	Define pressure ulcer and mention its four stages.	(CO2)	Remember	UNIT-1 LOT
10	Explain the Etio - pathogenesis of burns.	(CO2)	Understand	UNIT-1 LOT
11	What is MI (Myocardial Infraction). Classify them on the basis of their degree.	(CO2)	Remember	UNIT-2 LOT
12	Define multiple sclerosis and describe its pathology briefly.	(CO2)	Remember	UNIT-4 LOT
13	Write a short note on CHF (Congestive Heart Failure).	(CO2)	Remember	UNIT-2 LOT
14	What are hypersensitivity reactions? Mention their types.	(CO2)	Remember	UNIT-5 LOT
15	Explain the principles of sterilization and disinfection.	(CO3)	Understand	UNIT-5 LOT
16	Explain immunity and immune deficiency diseases.	(CO2)	Understand	UNIT-5 LOT
17	Describe the etiology and pathology of tuberculosis.	(CO3)	Understand	UNIT-3 LOT
18	Write a short note on cancer pain syndrome.	(CO5)	Remember	UNIT-1 LOT
19	Explain the morphology and laboratory identification of *Staphylococcus*.	(CO3)	Understand	UNIT-6 LOT
20	Write a short note on malaria.	(CO5)	Remember	UNIT-6 LOT

Section B - (20x 10= 200 Marks)

No.	Question	CO	Bloom's Category	Unit
21	Describe the process of inflammation and discuss its role in healing.	CO1	Understand	Unit 1 (LOT)
22	Discuss in detail about the pathogenesis and gross pathology of myocardial infarction.	CO2	Understand	Unit 2 (LOT)
23	Explain the pathophysiology and complications of congestive cardiac failure.	CO2	Understand	Unit 2 (LOT)
24	Compare and contrast anemia, polycythemia, and leukemia.	CO2	Analyze	Unit 2 (HOT)
25	Analyze the pathological changes seen in chronic obstructive pulmonary disease (COPD)and explain how these changes impair pulmonary function.	CO2	Analyze	Unit 3 (HOT)
26	Explain the Etio-pathogenesis and complications of bronchiectasis.	CO2	Understand	Unit 3 (LOT)
27	Discuss the Etio-pathogenesis and gross pathology of osteomyelitis.	CO3	Understand	Unit 3 (LOT)
28	Explain the pathophysiology and clinical significance of osteoporosis and Osteomalacia.	CO3	Understand	Unit 3 (LOT)
29	Compare and analyze the pathological changes that occur in Parkinson's disease and ALS.	CO3	Analyze	Unit 4 (HOT)
30	Discuss the causes and pathology of meningitis and encephalitis.	CO3	Understand	Unit 4 (LOT)
31	Explain the types and immunological mechanisms of hypersensitivity reactions.	CO4	Understand	Unit 4 (LOT)
32	Describe the methods of sterilization and disinfection used in clinical microbiology.	CO5	Understand	Unit 5 (LOT)
33	Discuss the laboratory identification and control of *Salmonella* infections.	CO5	Understand	Unit 6 (LOT)

34	Explain the Etio-pathogenesis and control measures of leprosy and tuberculosis.	CO5	Understand	Unit 3 (LOT)
35	Compare bacterial and viral infections with suitable examples.	CO5	Analyze	Unit 6 (HOT)
36	Discuss the structure, transmission, and prevention of poliomyelitis.	CO5	Understand	Unit 4 (LOT)
37	Explain the immune responses involved in vaccination.	CO4	Understand	Unit 5 (LOT)
38	Analyse and compare the etiopathogenesis of gout and osteonecrosis, highlighting key differences and similarities in their pathological mechanisms.	CO3	Analyze	Unit 3 (HOT)
39	Discuss the pathology of Spondyloarthropathy and Myofascial pain syndrome.	CO3	Understand	Unit 3 (LOT)
40	Explain how the principles of immunology contribute to the prevention and control of communicable diseases.	CO2	Understand	Unit 5 (LOT)

Section C (10 x 20= 200 Marks)

No.	Question	CO	Bloom's Category	Unit
41	Evaluate the role of inflammation in disease and healing with relevant examples.	CO1	Evaluate	Unit 1 (HOT)
42	Construct a detailed comparison between benign and malignant tumors including their clinical significance.	CO1	Create	Unit 1 (HOT)
43	Critically evaluate the current approaches in the management of myocardial infarction in relation to their effectiveness in preventing complications and improving prognosis.	CO2	Evaluate	Unit 2 (HOT)

44	Analyze the systemic manifestations of tuberculosis and explain how these reflect the underlying pathophysiological processes.	CO5	Analyze	Unit 3 (HOT)
45	Analyze how dysregulation of the immune response contributes to various types of hypersensitivity reactions and evaluate their impact on the progression and severity of diseases.	CO3	Analyze	Unit 5 (HOT)
46	Evaluate the role of microbiological control (sterilization, disinfection, and antisepsis) in the prevention of hospital infection.	CO3	Evaluate	Unit 5 (HOT)
47	Develop a flowchart explaining the pathogenesis and prevention of respiratory infections.	CO4	Create	Unit 3 (HOT)
48	Evaluate the pathological features and clinical progression of rheumatoid arthritis with emphasis on physiotherapy management.	CO3	Evaluate	Unit 3 (HOT)
49	Evaluate the role of host immune response in the development of symptoms during bacterial and viral infections.	CO4	Evaluate	Unit 6 (HOT)
50	Evaluate the significance of clinical microbiology and pathology knowledge in physiotherapy practice, integrating evidence from major body systems.	CO5	Evaluate	Unit 6 (HOT)

Summary Sheet
CO Wise

CO	Q. No	Marks
CO1	1,2,3,21,41,42	65
CO2	4,5,6,7,8,9,10,11,12,13,14,16,22,23,24,25,26,40,43	140
CO3	17,19,27,28,29,30,38,39,45,46,48	135
CO4	31,37,47,49	60
C05	18,20,32,33,34,35,36,44,50	100
Total		**500**

Unit Wise

Unit	Q. No	Marks
Unit 1	1,2,3,8,9,10,18,21,41,42	85
Unit 2	4,5,11,13,22,23,24,43,	70
Unit 3	6,7,17,25,26,27,28,34,38,39,44,47,48	145
Unit 4	12,29,30,31,36	45
Unit 5	14,15,16,32,37,40,45,46	85
Unit 6	19,20,33,35,49,50	70
Total		**500**

Blooms Taxonomy Level (BTL) Wise

BTL	Q. No	Marks
LOT	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22, 23,26,27,28,30,31,32, 33,34,37,39,40	240
HOT	24,25,29,35,36,38,41,42,43,44,45,46,47,48,49,50	260
Total		**500**

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Disclaimer: - This is a Practice Set. The Question in End term examination will differ from the Practice set. This Practice set is meant for practice only.