

B.SC. MLT/ RADIOGRAPHY / ALLIED HEALTH SCIENCES

B.SC. IN RENAL DIALYSIS TECHNOLOGY

I SEMESTER – DECEMBER 2020

Time: 3 Hours

Max. Marks: 60

HUMAN ANATOMY

Q.P. Code:1901

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number

Marks

LONG ESSAY QUESTIONS(Answer any TWO):

2 X 10 = 20

1. Describe the right lung under following headings:

- a) Impressions of the mediastinal surface.
- b) Broncho pulmonary segments.

(5+5)

2. Describe heart under following headings

(4+2+4)

- a) External features
- b) Coverings
- c) Inferior of right ventricle

3. Describe Larynx under following headings:

- a) Extent & relations
- b) Intrinsic muscles
- c) Nerve supply
- d) Applied anatomy

SHORT ESSAY QUESTIONS (Answer any FIVE):

5 X 5= 25

- 4. Types of bones
- 5. Pericardium
- 6. Histology of lung
- 7. Classify fibrous joints
- 8. Blood supply of heart
- 9. Pleura
- 10. Functional areas of cerebral hemisphere

SHORT ANSWER QUESTIONS(All are compulsory):

5 X 3 = 15

- 11. Write the features of typical synovial joint
- 12. Name the meninges covering cerebrum
- 13. Name the lymphoid organs
- 14. Name the paranasal air sinuses
- 15. Define the terms pronation & supination

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HUMAN PHYSIOLOGY-I AND BIOCHEMISTRY

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Use separate answer books for Section A and Section B

SECTION A : HUMAN PHYSIOLOGY-I Q.P. CODE : 1902 [30 Marks]

Question Number	Marks
LONG ESSAY QUESTIONS (Answer any ONE):	1 X 10 = 10
1. Trace the course for auditory pathway. Add a note on hearing tests (8+2)	
2. Classify leucocytes. Explain the structure, functions and variations of them. (2+5+3)	
SHORT ESSAY QUESTIONS (Answer any TWO):	2 X 5 = 10
3. Neuromuscular junction	
4. Types of Immunity	
5. Taste pathway	
SHORT ANSWER QUESTIONS (All are compulsory):	5 X 2 = 10
6. Classify body fluid compartments	
7. Accommodation	
8. Functions of Basal ganglia	
9. Components of reflex arc	
10. Mitochondria	

SECTION B : BASICS OF BIOCHEMISTRY...Q.P. CODE : 1903 [30 Marks]

Question Number	Marks
LONG ESSAY QUESTIONS (Answer any ONE):	1 X 10 = 10
1. What are proteins? Classify proteins based on their composition, biological functions and nutritional requirement (2+8)	
2. Define carbohydrates. Write in brief on biological importance of carbohydrates & add a note on polysaccharides (1+4+5)	
SHORT ESSAY QUESTIONS (Answer any TWO):	2 X 5 = 10
3. Write in detail about the principle and applications of pH meter (3+2)	
4. What are lipoproteins? Name the lipoproteins & write their functions (1+2+2)	
5. Explain the double helical structure of DNA with a diagram	
SHORT ANSWER QUESTIONS (All are compulsory):	5 X 2 = 10
6. Define the following: a) Normality b) Molarity c) Buffers	
7. Mention the different types of RNA along with their functions	
8. What are disaccharides? Give examples	
9. Define primary and secondary standards	
10. Mention the various uses of pipettes in laboratory	

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HEMATOLOGY & CLINICAL PATHOLOGY AND MICROBIOLOGY-I

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

Use separate answer books for Section A and Section B

SECTION A : PATHOLOGY- BASIC HAEMATOLOGY Q.P. CODE : 1904 [30 Marks]

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any ONE):

1 X 10 = 10

1. Describe the procedure for collection of blood sample in hematology laboratory. Add a note of preservation of blood sample for various hematology investigations (6+4)
2. Describe the procedure for estimation of packed cell volume. Enumerate Red Cell Indices. Explain the method of calculation of red cell indices. Mention the normal values of PCV and Red Cell Indices (4+2+4)

SHORT ESSAY QUESTIONS (Answer any TWO):

2 X 5 = 10

3. Describe reticulocyte. What is the clinical significance of reticulocyte count
4. Describe the principles & methods of blood grouping. List the various blood group systems
5. Describe the composition of wright stain. Describe preparation and procedure of staining peripheral smear using wright's stain

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 2 = 10

6. Enumerate the sites of bone marrow aspiration
7. Mention normal values of total WBC count and differential Leucocyte count in adults
8. Describe briefly about westergren pipette
9. Enlist the safety measures in hematology laboratory
10. Enumerate the functions of WBC's

SECTION B : MICROBIOLOGY-I...Q.P. CODE : 1905 [30 Marks]

Question Number

Marks

LONG ESSAY QUESTIONS (Answer any ONE):

1 X 10 = 10

1. Define the terms-sterilization, disinfection and Antisepsis. Classify the methods of sterilization. Describe steam sterilization (3+3+4)
2. Enumerate various microscopes used in microbiology. Describe the principle, limitations and applications of Light Microscope (2+2+2+4)

SHORT ESSAY QUESTIONS (Answer any TWO):

2 X 5 = 10

3. Hot Air Oven
4. Koch's Postulates
5. Bacterial Growth Curve

SHORT ANSWER QUESTIONS (All are compulsory):

5 X 2 = 10

6. Name any **three** articles sterilized by membrane Filtration
7. Name any **three** common antiseptics
8. Mention any **one** important contribution of: a) Alexander Fleming b) Leeuwenhoek c) Metchnikoff
9. Name any **three** qualities of good disinfectant
10. Transformation