

2125
B. Voc. (Medical Lab. Technology) FYUP
First Semester
MLT-101: Basics of Human Anatomy

Time allowed: 3 Hours

Max. Marks: 40

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit. Draw diagrams wherever necessary.

x-x-x

I. Explain the following:-

- a) Name the largest digestive gland of the body.
- b) What is diastema?
- c) What is yellow spot?
- d) What are seminiferous tubules?
- e) Name the ear ossicles of the middle ear.
- f) Which organ of human body acts as graveyard of RBCs?
- g) Differentiate artery & Vein.
- h) Define neuron.

(8x1)

UNIT - I

II. a) Name the glands present in human body and write their function.

b) Differentiate between striated, smooth and cardiac muscles of human body. (4,4)

III. Explain the structure of various joints present in human body. (8)

UNIT - II

IV. Write notes on the following:-

- a) Structure of human tooth
- b) Liver of Man

(4,4)

V. Describe the structure and functions of Pancreas. (8)

UNIT - III

VI. Explain the following:-

- a) Structure of Human Lung
- b) Larynx of Man

(4,4)

VII. Discuss in detail the structure of Human heart. (8)

UNIT - IV

VIII. a) Describe the structure of human eye.

b) Differentiate between male & female urethra. (6,2)

(6,2)

IX. a) Explain the structure of human kidney.

b) Discuss in brief the anatomy of human brain. (4,4)

(4,4)

x-x-x

Exam Code: 8121
Sub. Code: 41002

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B. Voc. (Medical Lab Technology) FYUP
First Semester
MLT-102: Fundamentals of Microbiology

Time allowed: 3 Hours

Max. Marks: 40

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

1. Write answer in very brief:-

- a) Define the clinical microbiology.
- b) Give the name of gram +ve bacteria.
- c) Write name of two nutrients require for microbial growth.
- d) Give the name of one pathogenic fungal agent caused diseases.
- e) What do you mean byalgae?
- f) What are the antiseptics?
- g) What is the antigen?
- h) Define sterilization. (8x1)

UNIT - I

2. a) Briefly describe the difference between eukaryotic and prokaryotic pathogenic cell.
b) Write contribution Anton won Leeuwenhoek in microbiology. (2x4)
3. a) Explain about the five nutrients required for growth of bacterial cell in a media.
b) Describe in brief about the growth curve of bacteria. (2x4)

UNIT - II

4. a) Give the general properties of actinomycetes.
b) Write in brief about bacterial classification. (2x4)
5. a) What is the peptidoglycan and its roles in protection of microbial cell?
b) Give the name of two sore forming bacteria, also write the significance of capsule. (2x4)

P.T.O.

(2)

UNIT - III

6. a) What are the general properties of actinomycetes?
b) Briefly classified the pathogenic fungi. (2x4)
7. a) Write about the diagnostics of human viruses.
b) Briefly describe general properties of bacteriophage. (2x4)

UNIT - IV

8. a) What is sterilization? How it is important for human health?
b) What is the theory of gram staining process? (2x4)
9. a) Write a short note on standardization of culture media.
b) What are disinfectants? What are their roles in Labs? (2x4)

x-x-x

2125
B. Voc. (Medical Lab Technology) FYUP
First Semester
MLT-103: Introduction to Hematology

Time allowed: 3 Hours

Max. Marks: 40

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

1. Write answer in very brief:-

- a) Define the hematology.
- b) What are the Rh Factor?
- c) Write name of two types cells present in blood?
- d) Why anticoagulants are used in hematology?
- e) What do you mean by antigens?
- f) What is the leukemia?
- g) What is the bleeding disorder?
- h) What is the polycythemia?

(8x1)

UNIT - I

2. a) Briefly describe the basic components of blood.

b) What is hemoglobin? Write its structure and functions in human body.

(2x4)

3. a) Write in brief about the blood coagulation and its significances.

b) Describe in brief about the homeostasis.

(2x4)

UNIT - II

4. a) What is the mode of action anticoagulants for blood?

b) Write a short note on absolute hematology.

(2x4)

5. a) Write about the various quality parameters in hematology.

b) Briefly describe calibration of hematology analyzers ensure accuracy and reliability of test results?

(2x4)

UNIT - III

6. a) Differentiate between normal and abnormal RBCs.

b) How will you detect the anemia in human? Write about various types of anemia. (2x4)

7. a) Explain the abnormal white cell count and its effects on human health.

b) Write a short note on multiple myeloma.

(2x4)

UNIT - IV

8. a) What are the basic tests for blood coagulation?

b) Write a short note on partial thromboplastin.

(2x4)

9. a) Write about the thrombin time.

b) How to prepare the laboratory for coagulation test?

(2x4)

x-x-x