

00044

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF MEDICAL LABORATORY SCIENCES
ACADEMIC YEAR 2018/2019 – SEMSETER I



BACHELOR OF MEDICAL LABORATORY SCIENCES (BMLS) HONOURS
MDU6503 – CLINICAL BIOCHEMISTRY III – LEVEL 6
FINAL EXAMINATION DURATION: THREE (03) HOURS

DATE: 27TH FEBRUARY 2019

TIME: 09.30AM – 12.30 PM

PART B – Structured Essay Questions

1. When acid chyme passes into the small intestine it is mixed with pancreatic juice, bile and intestinal juice and is in contact with the enterocytes of the villi.

1.1. List five (05) contents of the pancreatic juice. (05 marks)

- 1)
- 2)
- 3)
- 4)
- 5)

1.2. Pancreatic juice is alkaline (pH 8.0 or more) because it contains significant amounts of HCO_3^- . What is the significance of this? (05 marks)

-
.....
.....
.....
.....

1.3. List four (04) contents of bile. (04 marks)

- 1)
- 2)

1.4. Briefly describe the importance of the bile in digestion and absorption of food. (06 marks)

-
.....
.....
.....
.....
.....
.....

(Total: 20 Marks)

INDEX NO:

2. **Pregnancy causes alterations in most of the hematological parameters such as, hemoglobin, full blood count parameters, platelet count abnormalities, resus isoimmunization, hemostasis and coagulation abnormalities.**

2.1. Which of the above-mentioned hematological abnormality is most common in pregnancy? (02 marks)

.....

2.2. Give your reason for the answer given in 2.1. (02 marks)

.....

2.3. List three (03) investigations that can be performed to diagnose the condition that you stated in question no 2.1. (06 marks)

1)

2)

3)

2.4. List 3 other hematological conditions which are tested during pregnancy giving the type of tests which are performed (10 marks)

Hematological condition	Tests

(Total: 20 Marks)

INDEX NO:

4. Prenatal diagnosis is the identification of a disease or malformation of a fetus before it is born.

4.1. List three (03) maternal risk factors for prenatal diagnosis. (03 marks)

- 1)
- 2)
- 3)

4.2. List three (03) fetal risk factors for prenatal diagnosis (03 marks)

- 1)
- 2)
- 3)

4.3. List four (04) Biochemical analytes used in prenatal screening. (04 marks)

- 1)
- 2)
- 3)
- 4)

4.4. Briefly describe the biochemistry, assay methods, sample collection and handling and clinical significance of one of biochemical analytes listed on 4.3. (10 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

PART C – Essay Questions

1. Write an essay on classification of hormones based on chemical nature. (30 marks)
2. Write an essay on intestinal absorption and transport of iron in human. (30 marks)

INDEX NO: