

Libram

Index number:



UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) – JANUARY 2024
Academic Year 2018/2019
Pathology Paper II

Date: 23.01.2024.

Time: 9 am - 12pm (03 hours)

.....
ANSWER ALL THE 10 QUESTIONS

Write the answers in the given space below each question.

1.

1.1. A 50- year - old multipara woman presented to the emergency unit with progressive weight loss and abdominal distension for 6 months duration. Physical examination revealed a cystic mass arising from pelvis (16 week size). A pelvic scan confirmed right sided multiloculated ovarian cyst.

1.1.1. Mention **five (05)** risk factors for ovarian malignancy. (20 Marks)

.....
.....
.....
.....
.....

1.1.2. Classify the ovarian tumours based on their histological origin. (20 Marks)

.....
.....
.....
.....

1.1.3. Define borderline ovarian tumour. (10 Marks)

.....
.....
.....

1.2.

1.2.1. Define Gestational Trophoblastic Disease (GTD). (20 Marks)

.....
.....
.....
.....
.....
.....

1.2.2. List **five (05)** clinical presentations of gestational trophoblastic disease. (15 Marks)

.....
.....
.....
.....
.....

1.2.3. Briefly describe the pathophysiology of pregnancy induced hypertension. (15 Marks)

.....
.....
.....
.....
.....
.....
.....



Index number:

UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) – JANUARY 2024
Academic Year 2018/2019
Pathology Paper II

Date: 23.01.2024.

Time: 9 am - 12pm (03 hours)

2. A 55-year-old diabetic patient is admitted with fever and few episodes of vomiting for 5 days duration. His fever is associated with chills and rigor. He also complains of feeling unwell with nausea. On examination, his heart rate is 116 beats per minute and the blood pressure is 120/60 mmHg. There is right loin tenderness as well.

His investigation results are listed below:

FBC

Hb -12.9 g/dL (13.2-16.6 grams/dL)
WBC – 16.7 x10⁹/L (3.4 – 9.6 x10⁹/L)
Platelets- 420 x 10⁹/L (157 – 371 x10⁹/L)

CRP- 212 mg/dL (<0.8mg/dL)

UFR

Protein +
Pus cells – field full
RBC- Occasional

- 2.1. Give the likely diagnosis. (10 Marks)
.....
- 2.2. List **three (03)** further investigations you will order in this patient. (10 Marks)
.....
.....
.....
- 2.3. List the complications you would look for in this patient. (20 Marks)
.....
.....
.....
- 2.4. Briefly describe the pathological changes you will expect in the kidney parenchyma of this patient. (40 Marks)
.....
.....
.....
.....
.....
.....
.....

2.5. Mention the possible long-term sequelae of this acute condition.

(20 Marks)

.....
.....
.....
.....
.....
.....
.....



Index number:

UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) – JANUARY 2024
Academic Year 2018/2019
Pathology Paper II

Date: 23.01.2024.

Time: 9 am - 12pm (03 hours)

3. A 26-year-old previously healthy man is referred to the urology clinic with a right-sided painless scrotal swelling and heaviness of scrotum.

3.1. List **three (03)** differential diagnoses. (15 Marks)

.....
.....
.....

3.2. Briefly explain how you will differentiate the conditions mentioned in 3.1 on physical examination. (15 Marks)

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

3.3. His right testicle has a hard, irregular and painless mass. A testicular cancer is suspected.

3.3.1. List **three (03)** risk factors causing the above condition. (15 Marks)

.....
.....
.....

3.3.2. Mention **two (02)** common histological subtypes of the above condition. (10 Marks)

.....
.....

3.3.3. List **three (03)** tumour markers indicated in this patient. (15 Marks)

.....
.....
.....

3.3.4. Name the lymph node group in which the condition spread first. (10 Marks)

.....

3.3.5. Briefly Explain the **macroscopic appearance** (gross section) of the two (02) histological types you mentioned in 3.3.2. (20 Marks)

.....
.....
.....
.....
.....
.....



Index number:

UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) – JANUARY 2024
Academic Year 2018/2019
Pathology Paper II

Date: 23.01.2024.

Time: 9 am - 12pm (03 hours)

4. A 45-year-old woman presented to the emergency unit with a history of right hypochondrial pain associated with nausea and vomiting for 2 days duration. The pain was severe, intermittent in nature, and associated with meals. Ultrasound scan of the abdomen revealed multiple gallstones with a thickened gall bladder wall.

4.1. State the most probable diagnosis. (05 Marks)

.....

4.2. List **five (05)** risk factors associated with gallstones. (15 Marks)

.....
.....
.....
.....
.....

4.3. Outline the pathogenesis of cholesterol stones. (20 Marks)

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

4.4. One month after the prior acute episode, this lady presented to the emergency unit with the features of acute pancreatitis.

4.4.1. Briefly describe the sequential pathogenic events leading to this complication. (20 Marks)

.....
.....
.....
.....
.....
.....
.....

.....
4.4.2. List **five (05)** laboratory investigations that would be done in this patient and indicate the expected findings. (20 Marks)

.....
.....
.....
.....
.....

4.4.3. Enumerate **five (05)** major microscopic morphologic alterations associated with the above condition. (10 Marks)

.....
.....
.....
.....
.....

4.4.4. List **five (05)** other aetiological factors associated with the development of the condition mentioned in 4.4. (10 Marks)

.....
.....
.....
.....
.....



Index number:

UNIVERSITY OF JAFFNA, SRI LANKA

SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) – JANUARY 2024

Academic Year 2018/2019

Pathology Paper II

Date: 23.01.2024.

Time: 9 am - 12pm (03 hours)

5. A 55-year-old female presented to the surgical clinic with a history of a left breast lump for one-month duration. Examination showed that she had a 3 cm hard lump in the upper outer quadrant of the left breast with skin puckering and a Peau d'Orange appearance of the skin over the lump. She has no palpable axillary lymph nodes.

5.1. Mention the two (02) common histological types of breast cancer. (05 Marks)

.....
.....

5.2. Mention five (05) common special morphological types of breast cancer. (15 Marks)

.....
.....
.....
.....
.....

5.3. Mention five (05) risk factors for breast cancer. (10 Marks)

.....
.....
.....
.....

5.4. List four (04) clinical features of malignant breast lesions. (10 Marks)

.....
.....
.....

5.5. Briefly describe the pathogenesis of the skin puckering and Peau d'Orange appearance in breast cancer. (10 Marks)

.....
.....
.....

- 5.6. Mention the **four (04)** tumour stages (T staging) of breast cancer. (15 Marks)
.....
.....
.....
.....
.....
- 5.7. Mention the types of histological assessment available for breast cancer. (05 Marks)
.....
.....
.....
- 5.8. Mention the common metastatic sites for breast cancer. (10 Marks)
.....
.....
.....
- 5.9. List the parameters included in the Nottingham prognostic index. (10 Marks)
.....
.....
- 5.10. The above mentioned female is undergoing sentinel lymph node biopsy. Define the term **sentinel lymph node** biopsy. (10 Marks)
.....



Index number:

UNIVERSITY OF JAFFNA, SRI LANKA

SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) – JANUARY 2024

Academic Year 2018/2019

Pathology Paper II

Date: 23.01.2024.

Time: 9 am - 12pm (03 hours)

6. A 42 –year- old man presented to the Accident & Emergency unit with a history of tightening central chest pain, shortness of breath, nausea and increased sweating of one hour duration. He had no past history of any significant illnesses, but his father had similar illness and died at the age of 40 years.

6.1. Mention the most probable diagnosis. (05 Marks)

.....

6.2. List five (05) modifiable risk factors that can cause the condition mentioned in 6.1. (10 Marks)

.....

.....

.....

.....

.....

6.3. Briefly explain the pathophysiology of the condition mentioned in 6.1. (30 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

6.4. 6.4.1. Name one (01) important blood investigation that you will do in this patient. Mention the time of blood collection for the test after the onset of symptoms. (15 Marks)

.....

.....

.....

.....

.....

6.4.2. Mention another important non-laboratory investigation that should be done to confirm the diagnosis and explain the typical changes you will expect in this patient at different times after the onset of symptoms. (15 Marks)

.....
.....
.....
.....
.....

6.5. Two weeks after the acute event, this patient developed features of lung congestion.

6.5.1. Define the term "venous congestion". (05 Marks)

.....
.....
.....
.....
.....

6.5.2. Mention the gross morphological features that would be seen in this patient's heart and the lung. (10 Marks)

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

6.5.3. Name **two (02)** clinical features that would indicate the worsening of the condition. (10 Marks)

.....
.....

7.3.2. Nervous tissue.

(05 Marks)

.....
.....
.....
.....
.....
.....
.....

7.3.3. Muscle.

(05 Marks)

.....
.....
.....
.....
.....
.....
.....

7.3.4. Parenchymal tissue of solid organs.

(05 Marks)

.....
.....
.....
.....
.....
.....
.....

7.4. Enumerate **three (03)** complications that would be expected in a healing of fracture.

(15 Marks)

.....
.....
.....
.....

7.5. Enumerate the factors determining variation in the inflammatory response in different individuals.

(20 Marks)

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....



Index number:

UNIVERSITY OF JAFFNA, SRI LANKA

SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) – JANUARY 2024

Academic Year 2018/2019

Pathology Paper II

Date: 23.01.2024.

Time: 9 am - 12pm (03 hours)

8. A 60-year-old cook presented to the medical clinic with a history of progressive shortness of breath associated with a productive cough for six months duration, which got worse over the last week. He is a smoker with a history of 20 pack years. On examination, he was obese with features of cyanosis. The chest radiograph revealed an enlarged heart with prominent pulmonary vasculature. He was diagnosed to have chronic obstructive pulmonary disease (COPD).

8.1. Mention four (04) examples for Obstructive lung diseases. (10 Marks)

.....
.....
.....
.....

8.2. State which condition, mentioned in 8.1 is most possible in this patient and give reasons. (30 Marks)

.....
.....
.....
.....
.....
.....
.....
.....

8.3. Briefly describe the pattern observed in spirometry in a patient with obstructive pulmonary disease. (10 Marks)

.....
.....
.....
.....
.....

8.4. Briefly describe the pathogenesis of the condition mentioned in 8.2. (30 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

8.5. List **four (04)** long term complications of the condition mentioned in 8.2. (20 Marks)

.....

.....

.....

.....



Index number:

UNIVERSITY OF JAFFNA, SRI LANKA

SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) – JANUARY 2024

Academic Year 2018/2019

Pathology Paper II

Date: 23.01.2024.

Time: 9 am - 12pm (03 hours)

9. A patient presented with lethargy and light headedness. Clinician suspects haemolytic anaemia

9.1. State three (03) different questions you would ask from this patient to ascertain presence of haemolytic anaemia and giving reasons.

(20 Mark

.....

9.2. Examination shows splenomegaly. Outline the pathological basis for the splenomegaly in haemolytic anaemia.

(20 Mar

.....

9.3. List **three (03)** laboratory investigations you would perform in the initial work up and indicate the expected findings in each test in haemolytic anaemia. (20 Marks)

.....

9.4. Outline how you would classify haemolytic anaemia based on the site of the defect with **examples**. (20 Marks)

.....

9.5. State **three (03)** chronic complications and pathological basis of each in chronic haemolytic anaemia. (20 Marks)

.....

10.3. Describe peripheral blood picture findings expected in this patient. (20 Marks)

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

10.4. Compare and contrast acute myeloid leukemia with the disease mentioned in 10.1. (20 Marks)

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

10.5. List four (4) investigations (except FBC, Blood picture and the test used for the confirmation) required in the management of a patient with acute leukemia with giving reasons. (20 Marks)

.....
.....
.....
.....
.....
.....
.....
.....
.....