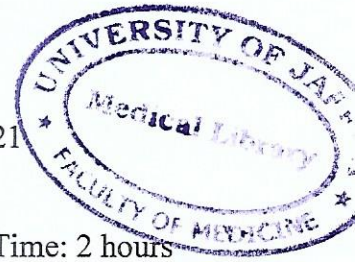


UNIVERSITY OF JAFFNA, SRI LANKA
FACULTY OF ALLIED HEALTH SCIENCES
First Year First Semester Examination in BScHons (MLS) - 2021
MLSPM 1143 PHYSIOLOGY FOR MLS I - PAPER II



Date: 12.12.2022

Time: 2 hours

ANSWER ALL THE SIX QUESTIONS.

1. 1.1. Describe tissue fluid formation and reabsorption (40 Marks)
- 1.2. A child is admitted with diarrhoea. Her serum Na is 128mEq/L.
- 1.2.1. Explain the mechanisms by which serum Na will be brought to normal level. (50 Marks)
- 1.2.2. Name one suitable fluid for oral therapy and one fluid for intravenous therapy. (10 Marks)

2. Briefly describe the basis of the following:
 - 2.1. Increased MCV in vitamin B₁₂ deficiency (30 Marks)
 - 2.2. Prolonged clotting time in liver disease (30 Marks)
 - 2.3. Rh negative mothers should be given anti-D injection immediately after delivering a Rh positive baby. (40 Marks)

3. Briefly describe the following:
 - 3.1. Action potential in nerves (50 Marks)
 - 3.2. Maintenance of body temperature in cold environment (50 Marks)

4. 4.1. Describe the changes in pleural pressure during quiet breathing. (40 Marks)
- 4.2. List the types of hypoxia. (20 Marks)
- 4.3. Briefly explain the physiological basis of increased respiratory rate in pulmonary oedema. (40 Marks)

5. 5.1. Name the phases of cardiac cycle (20 Marks)
- 5.2. Describe the pressure changes in the left ventricle during a cardiac cycle. (40 Marks)
- 5.3. Briefly explain the factors affecting cardiac output. (40 Marks)

6. Explain the physiological basis of the following:
 - 6.1. Heart rate of 120 / minute in a patient with haemorrhage. (40 Marks)
 - 6.2. Increased pulse pressure in pregnancy (30 Marks)
 - 6.3. Decreased risk of ischaemic heart disease in individuals who are physically active from young age (30 Marks)