



UNIVERSITY OF RUHUNA – FACULTY OF ALLIED HEALTH SCIENCES
DEPARTMENT OF PHARMACY

FOURTH BPHARM PART I EXAMINATION – MARCH/APRIL 2021

PH 4141 CELL BIOLOGY AND IMMUNOLOGY - SEQ

TIME: TWO HOURS

INSTRUCTIONS

- There are **four** questions in this paper.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Use illustrations where necessary.

01. Stem cells can be categorized according to their origin.

- 1.1 List five different adult stem cells. (20 marks)
- 1.2 List five diseases treated with stem cell therapy. (20 marks)
- 1.3 Receptors are a main component of signal transduction process in cells. Write a short note on “receptors”. (40 marks)
- 1.4 Explain the stages of cell cycle. (20 marks)

02.

- 2.1 State five different types of immunoglobulins and mention one function of each immunoglobulin. (40 marks)
- 2.2 Write a short note on “antibody”. (40 marks)
- 2.3 Briefly explain four salient features of Ag – Ab reaction. (20 marks)

03.

- 3.1 Write three main lymphoid organs with a function of each organ. (30 marks)
- 3.2 What is “Innate immunity”? Explain briefly. (35 marks)
- 3.3 Explain the mechanism of humoral immune response. (35 marks)

04.

- 4.1 Name five mediators of type I hypersensitivity. (20 marks)
- 4.2 Briefly explain the mechanism of type I hypersensitivity. (30 marks)
- 4.3 List five autoimmune diseases. (20 marks)
- 4.4 Write a short account on inflammation. (30 marks)

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