

M.Sc. Course in Clinical Research
Semester I Examination, December 2023
Paper Code: MCR-CFC-101
FOUNDATION COURSE IN CLINICAL RESEARCH

Time: 2.5 hours

Maximum Marks: 60

Answer QUESTION 1 (COMPULSORY) & ANY 4 (FOUR) OTHER QUESTIONS.

1. Briefly write about ALL of the following:

[3x4=12]

- a. Describe a long bone.
- b. Pacemakers of the heart.
- c. Toll-like receptors.
- d. Effervescent tablets.

QUESTION 2.

[12 MARKS]

- a. Explain the physiology of gastric acid secretion.
- b. A 55-year old alcoholic man reported with yellowish discoloration of eyes to the Hepatology OPD. Discuss how you would assess the severity of the disease of the patient using Child-Pugh Classification.

QUESTION 3.

[12 MARKS]

- a. Discuss the major stimulatory and inhibitory central neurotransmitters.
- b. With adequate diagrams describe the structure and organisation of the spinal cord.

QUESTION 4.

[12 MARKS]

- a. Discuss the role of hormones secreted by the pancreas.
- b. You are planning to organize a clinical trial at a hill station and notice a large number of people having swelling in the neck. What clinical examination and investigations will you recommend to be included in the protocol before patients could be enrolled in the trial?

QUESTION 5.

[12 MARKS]

- a. Describe a nephron and the process of urine formation.
- b. A 60-year-old male patient weighing 70 kgs has Sr. Creatinine of 2 mg %. Calculate the creatinine clearance of the patient.

QUESTION 6.

[12 MARKS]

With a suitable diagram, explain cell mediated immunity.

QUESTION 7.

[12 MARKS]

Explain different types of liquid oral formulations.