

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc., Winter 2019-20 Examination

Semester: 1

Subject Code: 11209116

Subject Name: Advanced physiology

Date: 02/12/2019

Time: 10:30am to 1:00pm

Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1. A) Brief note (4x2) (Each of 04 marks) (08)

- (a) Structure and function of muscles
- (b) The neuroendocrine axis-role of releasing factors and feedback responses.

Q.1. B) Answer the following questions (Any two)

- (a) Brief note (2x2) (Each of 02 marks) (04)
 - 1) Humoral responses of Hormones
 - 2) Role of interleukins
- (b) Water balance by kidney (04)
- (c) Short note: Osteoporosis (04)

Q.2. A) Answer the following questions.

- (a) Brief note (2x2) (Each of 02 marks) (04)
 1. Full form of GM-CSF and M-CSF
 2. What is lactation
- (b) Types of Anemias (04)

Q.2. B) Answer the following questions (Any two)

- (a) Multiple choice questions. (Each of 01 marks) (03)
 - 1) _____ bones consist of two outer layers of compact bone and an inner layer of spongy bone.
 - 2) Which one engulf foreign materials

A) Macrophages	B) Plasma cells
C) Mast cells	D) Lymphocytes
 - 3) Bones are composed of _____ and _____ tissues.
- (b) Short note: Alkalosis (03)
- (c) Short note: HIV/AIDS (03)

Q.3. A) Essay type (Each of 04 marks) (08)

- (a) Name different type of bones
- (b) Explain in brief about reproductive hormones in endocrine system

Q.3. B) Answer the following questions (Any two)

- (a) Brief note (2x2) (Each of 02 marks) (04)
 1. Role of ADH
 2. Explain blood pressure control by kidney
- (b) Gastric emptying and regulation (04)
- (c) Role of Kidney in maintaining pH of blood (04)

Q.4. A) Answer the following questions.

- (a) Brief note (2x2). (Each of 02 marks) **(04)**
1. Which are types of muscles
2. GFR
- (b) Explain Menstrual cycle **(04)**

Q.4. B) Answer the following questions (Any two)

- (a) Do as directed (Each of 01 marks) **(03)**
1) Bones are mostly made of the protein _____.
2) Reduction of CO_2 in body leads to _____
3) Which of the following is an example of osmosis?
A) A plant's roots use osmosis to absorb water from soil
B) The human body uses osmosis to move antibodies out of cells
C) A single celled organism uses osmosis to take in food particles
D) Intestinal cells use osmosis to absorb nutrient from food
- (b) Vitamin A impact on immune system **(03)**
- (c) Short note on cell mediated immunity **(03)**