

2019

MSc

2nd Semester Examination

HUMAN PHYSIOLOGY

PAPER – PHY - 201

Full Marks: 40

Time: 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their
Own words as far as practicable.

Illustrate the answers wherever necessary.

Unit 201.1

1. Answer any *TWO* questions from the following:- 2×2 = 4
- a) What are the special formula recommended for preterm babies? 2
- b) What is eugenics? 2
- c) Mention one merit and one demerit of irradiation technology in food processing 2
- d) Define infectious diseases. Name one viral and one metazoan infectious (1+1) disease.
2. Answer any *TWO* questions from the following:- 2×4
- a) Illustrate the significance of "IMS – Act -1992".
What are the 'sections' and 'act' implemented for common people? 1+3
- b) Describe different types of dental carries.
What is meant by LBW baby? 2+2
- c) Briefly discuss about the nutritional attributes of legumes in human nutrition?
What is aflatoxin poisoning? 3+1
- d) Describe different environmental factors that influences epidemiological triad.
Which one is considered as an "agent" in genetic epidemiology? 3+1

3. Answer **ONE** question from the following: 1×8
- a) What do you mean by premenstrual dysphoric disorder (PMDD)?
Write down its physical signs and symptoms?
Briefly discuss the several causative factors responsible for gestational diabetes.
How does reflexes facilitates galactokinesis? (1+2)+3+2
- b) What is population genetics? Define population and gene pool considered in population genetics. What is meant by allele frequency in a population?
How would you determine that?

Unit – 201.2

1. Answer any **TWO** from the following: 2×2
- a) What is mutualism ? – Give an example. 1+1
- b) Mention the direct cellular toxicity of carbon monoxide poisoning. 2
- c) What is tropopause? 2
- d) What are the functional elements of solid waste management? 2
2. Answer any **TWO** from the following questions: 4×2
- a) Discuss about the interconnection between food chain and food web.
- b) State the direct and indirect action of ionizing radiation.
- c) Mention the factors that affect the gastrointestinal absorption of xenobiotics.
- d) Discuss about the reduction and reuse strategies in the management of municipal solid waste (MSW).

3. Answer any **ONE** question from the followings:

1×8

- a) i) Define biotransformation of xenobiotics.
ii) Mention the major phase I biotransformation reactions
iii) Describe critically cytochrome P-450 mediated phase I reaction mechanism.
(2+1½+4½)
- b) i) Define endemic species.
ii) How does biodiversity affect functions of ecosystem?
iii) Discuss the role of biosphere reserve for sustainable development?
(2+3+3)