

## FOURTH SEMESTER P.G. DEGREE EXAMINATION, APRIL 2022

(CCSS)

Human Physiology

PSG 4E 05—DIET AND NUTRITION

(2019 Admissions)

Time : Three Hours

Maximum : 80 Marks

I. Long Essay. Answer any *four* :

- 1 Define balanced diet. Describe the steps in planning balanced diet.
- 2 Describe the purpose and methods of cooking.
- 3 Describe the nutritional importance of proteins. Explain the dietary sources, requirements and deficiency of proteins.
4. What is food habit ? Describe the various factors influencing food habits and food selection.
- 5 Describe the need for food storage and explain the various methods of food storage with their merits and demerits.
- 6 Explain the nutritional importance of calcium under the following headings : A) Source B) Daily requirements, C) Physiological functions D) Deficiency manifestations.

(4 × 10 = 40 marks)

II. Short essays. Write short notes on any *eight* :

- 7 Prevention of food adulteration.
- 8 Dietary importance of vitamin D.
- 9 Causes and symptoms of vitamin C deficiency
- 10 Effect of heat on cooking.
- 11 Nutritional importance of cholesterol.
- 12 Causes and symptoms of Vitamin K deficiency.
- 13 Trace elements.
- 14 Food pattern.
- 15 Diet planning for diabetic patient.
- 16 Dietary sources of carbohydrates.

(8 × 5 = 40 marks)

**FOURTH SEMESTER P.G. DEGREE EXAMINATION, APRIL 2022**

(CCSS)

Human Physiology

PSG 4C 15—ADVANCES IN NEUROSCIENCES

(2019 Admissions)

Time : Three Hours

Maximum : 80 Marks

*Draw neat Labelled Diagrams wherever needed.*I. Long Essay : Answer any *four* questions. Each question carries 10 marks :

- 1 Describe sleep and wakefulness. Describe the physiological basis of sleep. Add a note on sleep disorders.
- 2 Describe the causes, clinical features and management of Parkinsonism.
- 3 Define and classify motor neuron disorder. Describe the clinical features of different types of motor neuron disorders.
- 4 Define depression. Describe the causes and clinical features of depression. Explain the impact of depression on personal health and social health.
- 5 Explain the socio economic impact of drug addiction. Add a note on physiological basis for drug addiction and de addiction.
- 6 Define emotion. Explain the role of limbic system on emotion.

(4 × 10 = 40 marks)

II. Write short notes on any *eight*. Each question carries 5 marks :

- 7 Clinical features and management of Alzheimer's disease.
- 8 Epilepsy.
- 9 Dementia.
- 10 Biochemical markers for stress.

- 11 Brown Sequard syndrome.
- 12 Multiple sclerosis.
- 13 Therapeutic uses of stem cell technology.
- 14 Speech disorders.
- 15 Neurotrophic factors.
- 16 Life style related disorders.

(8 × 5 = 40 marks)

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## FOURTH SEMESTER P.G. DEGREE EXAMINATION, APRIL 2021

(CCSS)

M.Sc. Human Physiology

PSG 4E 06—METABOLIC DISORDERS AND MANAGEMENT

(2019 Admissions)

Time : Three Hours

Maximum : 80 Marks

*Draw neat labelled diagrams wherever necessary.*I. Long Essays. Answer any *four* of the following :

- 1 Write an account of salvage pathway in purine nucleotide synthesis. Add a note on Lesch-Nyhan syndrome.
- 2 Classify Jaundice ? How do you investigate a case of jaundice ?
- 3 Outline the steps of Phenylalanine and Tyrosine catabolism ? Explain the inborn errors of metabolism associated with this pathway ?
- 4 Give an account on the nutritional importance of carbohydrates, lipids and proteins. Add notes on protein energy malnutrition.
- 5 Explain the disorders of heme synthesis ?
- 6 Explain the process by which galactose is converted into glucose. Indicate the metabolic errors associated with this pathway.

(4 × 10 = 40 marks)

II. Write short notes on any *eight* of the following :

- 7 Maple syrup urine disease.
- 8 Atherosclerosis.
- 9 Reye's syndrome.
- 10 Respiratory distress syndrome.
- 11 Niemann-Pick disease.
- 12 Dicarboxylic aciduria.
- 13 Secondary hyperuricemias.
- 14 Acquired Hyperbilirubinemias.
- 15 Glycogen storage diseases.
- 16 Hartnup disease.

(8 × 5 = 40 marks)

## FOURTH SEMESTER P.G. DEGREE EXAMINATION, APRIL 2021

(CCSS)

M.Sc. Human Physiology

PSG 4E 08—TOXICOLOGY

(2019 Admissions)

Time : Three Hours

Maximum : 80 Marks

*Answer any four of the following.*

## I. Long Essay :

- 1 Describe the causes, signs, symptoms and management of poisoning by :  
A) Barbiturates ; B) Phenol ; and C) Kerosene.
- 2 Explain the complication of snake bite and add a note on first aid in snake bite.
- 3 Classify irritants. Describe the effect of irritants on various organ systems.
- 4 Describe the causes and impact of Bhopal gas tragedy. Add a note on steps to be taken to avoid such a hazard.
- 5 Describe the causes, clinical features and management of organophosphorus poisoning.
- 6 Explain the endosulfan poisoning under the following headings :  
a) Source ; b) Mechanism of action ; c) Complications ; and d) Management.

(4 × 10 = 40 marks)

II. Short Essays. Answer any *eight* :

- 7 Heavy metal ion poisoning.
- 8 Alcohol poisoning.
- 9 Agriculture based poisons.
- 10 Compare acute, sub acute and chronic toxicity.
- 11 Formaldehyde poisoning.
- 12 Cannabines and cocaine.
- 13 Mechanism of action of carbon monoxide.
- 14 Plumbism.
- 15 Vitriolage.
- 16 Mechanical irritants.

(8 × 5 = 40 marks)