D 12289

Name.....

Reg. No.....

FIRST SEMESTER P.G. DEGREE EXAMINATION, NOVEMBER 2021

(CCSS)

Human Physiology

PSG 1C 03—GENERAL BIOCHEMISTRY AND METABOLISM

(2019 Admissions)

Time : Three Hours Maximum : 80 Marks

Draw neat labelled diagrams wherever necessary.

I. Long Essays. Answer any *four* :

1 Describe by a flow diagram the reactions of glycolysis giving names of enzymes involved. Explain its regulation and add a note on the energetic in aerobic and anaerobic conditions.

2 What are glycosamino glycans ? Explain the biosynthesis of Hyaluronic acid.

3 Write an essay on the metabolism of iron in the body.

4 How are prostaglandins synthesized ? Specify their importance as local hormones. Mention the effects of drugs acting on this pathway.

5 Mention the normal blood urea level. Add a note on formation and detoxification of ammonia and the related disorders.

6 Write the reactions by which glycine is synthesized and catabolized. Name six important compounds derived from glycine and indicate their functions. What are the metabolic errors in relation to glycine ?

(4 × 10 = 40 marks)

II. Write short notes on any *eight* :

7 What is Folate trap ?

8 Explain different types of enzyme inhibition giving suitable examples.

9 Briefly discuss the significance of HMP shunt.

10 Discuss the monitoring of diabetes mellitus.

11 Describe the role of lipoproteins in cholesterol transport.

12 Explain competitive enzyme inhibition with suitable example.

13 Mention three examples of trans methylation reactions.

14 Mention the biological functions and deficiency manifestations of vitamin C.

15 What are the significance of reduced glutathione ?

16 What is Redox potential ?

(8 × 5 = 40 marks)

D 12287

Name.....

Reg. No.....

FIRST SEMESTER P.G. DEGREE EXAMINATION, NOVEMBER 2021

(CCSS)

Human Physiology

PSG 1C 01—GENERAL ANATOMY, GENERAL PHYSIOLOGY AND BLOOD

(2019 Admissions)

Time : Three Hours Maximum : 80 Marks

Draw neat labelled diagrams wherever necessary.

I. Long Essays. Answer any *four* :

1 What are synovial joints? Mention its structure, types and movements.

2 Describe the mechanism of hemostasis. Add note on Anticoagulants.

3 What is erythropoesis ? Describe its stages and factors affecting it.

4 Explain the different methods transport across the cell membranes.

5 Describe ABO blood group system. Add notes on hazards of mismatch blood transfusion.

6 Describe the structure of typical cell membrane.

(4 × 10 = 40 marks)

II. Short Essays. Answer any *eight* :

7 Cells of connective tissue.

8 Sesamoid bone.

9 Extra Cellular Fluid. How it measured ?

10 Resting cell membrane and its ionic basis.

11 Programmed cell death.

12 Structure of platelets.

13 Negative feedback mechanism.

14 Mechanism of cell mediated immunity.

15 Phagocytosis.

16 Packed cell volume.

(8 × 5 = 40 marks)

D 12288

Name.....

Reg. No.....

FIRST SEMESTER P.G. DEGREE EXAMINATION, NOVEMBER 2021

(CCSS)

Human Physiology

PSG 1C 02—MICRO BIOLOGY, IMMUNOLOGY AND INFECTIOUS DISEASES

(2019 Admissions)

Time : Three Hours Maximum : 80 Marks

Draw neat labelled diagrams wherever necessary.

I. Long Essays. Answer any *four* :

1 What is antibody ? Describe the structure and functions of various classes of antibody.

2 Name the common bacterial agents causing respiratory tract infections. Explain in detail the pathogenesis and laboratory diagnosis of any one organism.

3 Describe in detail the mechanism of cell mediated immune response.

4 Describe about the principles, types and applications of ELISA.

5 Define health care associated infections. Mention the common types of health care associated infections and add notes on its preventive measures.

6 Classify the various culture media used to cultivate bacteria. Describe in detail the different special media used in clinical laboratory.

(4 × 10 = 40 marks)

II. Write short notes on any *eight* :

7 Type I hypersensitivity reactions.

8 Phase contrast microscopy.

9 Disorders of phagocytosis.

10 Contributions of Robert Koch.

11 Bacterial flagella.

12 Anaerobic culture methods.

13 BCG vaccine.

14 Null cells.

15 Food poisoning.

16 Alternative complement pathway.

(8 × 5 = 40 marks)