

C-1429

Sub. Code

92911

P.G. DIPLOMA EXAMINATION, NOVEMBER 2019

Non – Semester

Perfusion Technology

ANATOMY AND PHYSIOLOGY

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Write the difference between serum and plasma.
2. Functions of Hemoglobin.
3. Clavicle.
4. Functions of Endoplasmic reticulum.
5. Layers of Heart.
6. Rh incompatibility.
7. Define Homeostasis.
8. Define Inflammation.
9. Functions of pleura.
10. Anatomical divisions of the Human body.

Part B

(5 × 5 = 25)

Answer **all** questions

11. (a) Draw a neat diagram of nephron and write its functions.

Or

- (b) Brief the hormones of adrenal glands and write its functions.

12. (a) Differentiate skeletal and Cardiac muscle.

Or

- (b) Mention the role of lymphatic system in the body.

13. (a) Functions of plasma proteins.

Or

- (b) Functions of Liver.

14. (a) List out the Cranial nerves and its functions.

Or

- (b) Name the different types of bones present in our body and explain any 2 types with examples.

15. (a) Explain PFT, LFT, ECG, EEG, ECHO.

Or

- (b) Define hypersensitivity. Explain types of hypersensitivity reactions.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Draw a neat diagram of cell and write its Organelles function in detail.

Or

- (b) Write about different types of Joints and explain in detail about ball and socket joint.

17. (a) Explain the Circulatory system.

Or

- (b) Draw a neat diagram of GI system and explain about each organ.

18. (a) Explain the infectious diseases and factors contributing it.

Or

- (b) Name 5 endocrine glands and write the sections of Pituitary and its functions.

C-1430

Sub. Code

92912

P.G. DIPLOMA EXAMINATION, NOVEMBER 2019

Non-Semester

Perfusion Technology

PERFUSION TECHNOLOGY

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Poiseuille's law.
2. Types of Pumps.
3. Heart sounds.
4. Define stroke volume, Minute volume.
5. Expand EDV, ES.V, EF.
6. ACT
7. Define Epithelium.
8. Cardiectomy Line Filter
9. Normal values of Na⁺, K⁺ and P^H of blood.
10. Heparin and Protamin.

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Write a short note on venting of the heart.

Or

- (b) List any five heart diseases and explain any two.

12. (a) Write a short note on ultra filter.

Or

- (b) Define blood. Write about different components of blood with its function.

13. (a) Define Myocardial infarction. Write its causes manifestations and surgical management.

Or

- (b) Brief about ABG.

14. (a) Write the importance of Dimetics in Cardiac Surgery.

Or

- (b) Assist devices – LVAD and RVAD.

15. (a) Draw a neat diagram of heart and brief the structure of heart.

Or

- (b) Write a short note on ECMO.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write down the types, principles, differences, advantages and disadvantages of oxygenators.

Or

- (b) Write down the indications, contraindications, principle and management of IABP.
17. (a) Define Congenital heart disease. Write the classification and brief about TOF.

Or

- (b) Write an essay on Heart-Lung machines that are presently in use.
18. (a) Explain the indications and process of perfusion in detail.

Or

- (b) Explain intermittent cross clamping and external cooling.
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C-1431

Sub. Code

92913

P.G. DIPLOMA EXAMINATION, NOVEMBER 2019

Non-Semester

Perfusion Technology

MEDICAL TERMINOLOGY

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Hyperthermia, Hypothermia.
2. Define Pneumothorax, Hemothorax.
3. Define Carpulmonale, Raynaud's disease.
4. Define Abscen, Cyst.
5. Name any four long bones in body and write its position.
6. Name the parts of male reproductive system.
7. Define stroke volume, minute volume, cardiac index.
8. Name the lobes of liver.
9. Layers of Skin.
10. Name the anatomical divisions of human body.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Discuss in detail about Heart Sounds.

Or

- (b) Explain about blood flow through heart.

12. (a) Name the muscles of respirations and write the movements of thoracic cage during respiration.

Or

- (b) Draw a neat diagram of GI system and label its parts.

13. (a) Name any five disease related terms about central nervous system and brief about them.

Or

- (b) Describe any five common suffuses used in Cardio vascular system.

14. (a) Name the blood cells. Explain the functions in detail.

Or

- (b) Expand:

- (i) MRI
- (ii) CABG
- (iii) PET
- (iv) ECHO
- (v) ECG

15. (a) Explain in brief about Burgers disease, Varicose Veins.

Or

- (b) Write the difference between artery and vein and list the divisions of aorta.

Part C

(3 × 10 = 30)

Answer all questions.

16. (a) Name any five diagnostic and five surgical terms used in Cardio Vascular System and brief about where they are used.

Or

- (b) Explain in detail about Conduction system of Heart.

17. (a) Draw a neat labelled diagram of lungs and explain about mechanism of respiration.

Or

- (b) List down the different types of joints and explain about Synovial Joints.

18. (a) Write a brief note on:
- (i) Cardiac Catheterization.
 - (ii) CABG.

Or

- (b) Discuss in detail about the rules in framing the medical terms.

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Sub. Code

92914

P.G DIPLOMA EXAMINATION, NOVEMBER 2019

Non-Semester

Perfusion Technology

BIO CHEMISTRY

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Glycogen
2. Mitochondria
3. Peptide bond
4. Hyponatremia
5. Buffer
6. Beri-Beri
7. Active site
8. Cytoskeleton
9. Unsaturated Fattyacid
10. Isoenzyme

Part B**(5 × 5 = 25)**Answer **all** questions

11. (a) Classification of Lipids

Or

- (b) Structure of Proteins

12. (a) Urea Cycle

Or

- (b) Enzyme Inhibition

13. (a) Digestion and absorption of carbohydrates

Or

- (b) Nutritional classification of aminoacids

14. (a) Regulation of PH by Renal mechanism

Or

- (b) Blood buffer

15. (a) Factors affecting enzyme activity

Or

- (b) Henderson Hasselbalch equation

Part C**(3 × 10 = 30)**Answer **all** questions.

16. (a) Water soluble vitamins

Or

- (b) Principle, procedure and applications of Electrophoresis

17. (a) Water and Electrolyte balance

Or

(b) Write in detail about vitamin A

18. (a) Radioimmuno Assay

Or

(b) Metabolism of minerals

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Sub. Code

92915

P.G. DIPLOMA EXAMINATION, NOVEMBER 2019

Non-Semester

Perfusion Technology

PHARMACOLOGY

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define pharmacology.
2. Excretion of drugs
3. Blood groups
4. Source of drugs
5. Antibiotics
6. Drug toxicity
7. Fixed dose combination
8. Drug abuse
9. Define Anaesthesia.
10. Diuretics.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Composition of blood and blood forming organs.

Or

- (b) Drug Assays.

12. (a) Differentiate local Anaesthesia Vs. Regional Anaesthesia.

Or

- (b) Methods of Local Analgesia.

13. (a) Explain the process of drug distribution in our body.

Or

- (b) Care of medicine cabinet and drugs.

14. (a) Factors modifying drug action.

Or

- (b) Explain about essentials of a medication order.

15. (a) Drug Allergy, types of allergic reactions and their mechanisms.

Or

- (b) Write notes on Antiarrhythmic drugs.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Various routes of administration of drugs with advantage and disadvantages.

Or

- (b) Explain therapeutic index.

17. (a) Write notes on Antihypertensive drugs with pharmacokinetics and pharmacodynamics.

Or

- (b) Classification of drugs.

18. (a) Classify local anaesthetics, write the therapeutic effects, concentration, preparation of Lignocaine and Bupivacaine.

Or

- (b) What are the various methods of prolonging drug action?
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