CP–9840

Sub. Code
92911

P.G. DIPLOMA EXAMINATION, NOVEMBER 2018

Non-Semester

Perfusion Technology

ANATOMY AND PHYSIOLOGY

(2016 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Mention the clinical divisions of body.
2. Define cell and mention its functions.
3. Name the salivary glands.
4. Draw a neat diagram of clavicle and write its parts.
5. Define stroke volume, minute volume.
6. Define infection.
7. Functions of skin.
8. List out plasma proteins.
9. Write the branches of arch of aorta.
10. Define ejection fraction and write its importance.

Part B $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Write about bolland socket joint and explain with example.

Or

(b) Define erythropiosis. Write its stages.

12. (a) Define CPR and explain.

Or

(b) Write a note on spermatogenesis.

13. (a) Functions of blood. Add a note on RBC.

Or

(b) ABO blood group system.

14. (a) Define diabetes mellitus. Write its clinical manifestations and complications.

Or

(b) Draw a neat diagram of heart and explain its structure.

15. (a) Functions of liver.

Or

(b) Functions of posterior pituitary.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) List the cranial nerves and write its functions.

Or

(b) Blood and nerve supply, structure of lungs.

17. (a) Draw a neat diagram of GI tract and write the functions of each part.

Or

(b) Write in detail about pulmonary and systemic circulation and flow of blood through heart.

18. (a) Explain in detail the stages of menstrual cycle.

Or

(b) Explain the steps involved in formation of urine.

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CP–9841

Sub. Code
92912

P.G. DIPLOMA EXAMINATION, NOVEMBER 2018.

Non-Semester

PERFUSION TECHNOLOGY

(2016 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Normal values of Na, K, Cl and pH of blood.

2. Conversion of temperature from Celsius to Fahrenheit degrees.

3. Types of blood groups.

4. Formula of cardiac index.

5. Normal pressures of RA, PA, LV and AO.

6. Left internal memory artery is a brand of ————————.

7. Sudden venous return decrease – 2 reasons.

8. Blood transfusion – 2 complications.

9. Formula of circulating Hematocrit on CPB.

10. Occlusion checking.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Preparation of an emergency CPB.

Or

(b) MUF and CUF.

12. (a) Types of primes.

Or

(b) Role of a perfusionist during off pump CABG.

13. (a) ECMO.

Or

(b) Cell savor.

14. (a) Hemofilter.

Or

(b) Diuretics.

15. (a) Composition of blood.

Or

(b) Sites of reaching of the heart during CPB.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Blood pumps.

Or

(b) IABP.

17. (a) Oxygenators.

Or

(b) Hypothermia.

18. (a) Myocardial Protection.

Or

(b) Conduct of perfusion.

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CP–9842

Sub. Code
92913

P.G. DIPLOMA EXAMINATION, NOVEMBER 2018

Non-Semester

Perfusion Technology

MEDICAL TERMINOLOGY

(2016 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Mention the roots of following words "Liver" and "Kidney".

2. List out the organs of male reproductive system.

3. Describe the common prefixes used in lymphatic and hepatic systems.

4. What are the different types of tissues in the body?

5. Complete :

   (a) Drugs used to treat infection ————————.

   (b) Drugs used to treat Arrythmias ————————.

6. What are the components of medical term?

7. Give the meaning of terms (prefixes) "Auto" and "Anti" with example.

8. Write four abbrevations related to radiology.

9. Name the body cavities.

10. Define sphincter. Give example and uses.

Part B $(5 \times 5 = 25)$

Answer **all** questions.

11. (a) Define varicose veins and explain.

Or

(b) Name the disease of heart valves and explain.

12. (a) Describe different blood groups? Add a note on Rh factor.

Or

(b) Describe any five diagnostic procedures used in blood diseases.

13. (a) List down the brancher of aorta in order.

Or

(b) Structure of Heart.

14. (a) Define cardiac tamponde? Write the causes and complication.

Or

(b) Name the plasma proteins and write the importance in our body.

15. (a) What are the causes of mitral regurgitation?

Or

(b) Enumerate and explain any ten anatomical terms.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Write a note on Renal function test.

Or

(b) What is congenital heart disease? Explain any one type.

17. (a) Explain in brief.

(i) Spirometry

(ii) MRI

(iii) Cardiac catheterizations

(iv) Echo

(v) TMT.

Or

(b) Brief the vocabulary and pathology terms related to hospital laboratory.

18. (a) What are the different types of blood cells? Explain in detail.

Or

(b) Discuss about major organs of cardiovascular system.

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CP–9843

Sub. Code
92914

P.G. DIPLOMA EXAMINATION, NOVEMBER 2018

Non-Semester

Perfusion Technology

BIOCHEMISTRY

(2016 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Cyto skeleton
2. Inulin
3. Isomer
4. Name Disaccharides
5. Isoenzymes
6. Hypokalemia
7. Normal ranges of serum electrolytes
8. Jaundice
9. Blood buffers
10. Aromatic amino acids

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Brief note on polysaccharides.

Or

(b) Classification of lipids.

12. (a) Brief note on vitamin D.

Or

(b) Structure of proteins.

13. (a) Essential fatty acids.

Or

(b) Brief notes on coenzymes.

14. (a) Digestion and absorption of carbohydrates.

Or

(b) Biomedical importance of phospholipids.

15. (a) Brief notes of serum electrolytes.

Or

(b) Classification of proteins.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about principle, procedure and applications of electrophoresis.

Or

(b) Define enzyme. Add a note on enzyme classification. Which are all the factors affecting enzyme activity?

17. (a) Explain in detail about principle, procedure and applications of chromatography.

Or

(b) Write in detail about fat soluble vitamins.

18. (a) Explain in detail about principle, procedure and applications of RIA.

Or

(b) Write in detail about glycogen metabolism.

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CP–9844

Sub. Code
92915

P.G. DIPLOMA EXAMINATION, NOVEMBER 2018

Non- Semester

Perfusion Technology

PHARMACOLOGY

(2016 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define Pharmacokinetics.
2. What is a prescription?
3. Opiod Analgesics.
4. Sources of Drugs.
5. Drug toxicity.
6. List out commonly abused drugs.
7. Irrational Drug therapy.
8. Insulin.
9. Define Anaesthesia.
10. Toxicology.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Write about different types of drug interactions.

Or

(b) Explain various forms of drug abuse.

12. (a) Discuss the effects of Adrenaline.

Or

(b) Methods of local Analgesia.

13. (a) Write about the factors modifying drug action.

Or

(b) Write notes on metabolism of drugs.

14. (a) Classification of drugs.

Or

(b) Write notes on Local Anaesthetics.

15. (a) Explain the process of Bio transport of drug.

Or

(b) Drug assays.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Define Bio-availability and describe the factors affecting drug absorption.

Or

(b) Classify Anti arrythmics? Write note on Beta blockers.

17. (a) What are different routes of drug administration and write about advantages and disadvantages of parenteral route of administration.

Or

(b) What are the effects and adverse reaction of heparin and oral anticoagulants.

18. (a) Discuss briefly the different groups of Antihypertensive drugs.

Or

(b) Composition of Blood and write notes on Blood forming organs.

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