

**C-0712**

**Sub. Code**

**92911**

**P.G. DIPLOMA EXAMINATION, APRIL 2019**

**First Semester**

**Perfusion Technology**

**ANATOMY AND PHYSIOLOGY**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Name four diseases of respiratory system.
2. Loop of Henle.
3. Define meiosis.
4. Spermatogenesis.
5. Oxytocin.
6. Two divisions of Human skeleton.
7. What do you mean by Rhesus factor?
8. Name the sense organs.
9. Functions of lymph nodes.
10. Define pulse. Mention its sites.

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

11. (a) Structure and function of lymph nodes.

Or

- (b) Explain in detail the process of respiration with diagram.

12. (a) Brief about blood groups.

Or

- (b) Explain the role of kidney in osmo regulation.

13. (a) What is the fate of food after ingestion.

Or

- (b) Renal function test.

14. (a) Name the salivary glands write its functions.

Or

- (b) Name the muscles of respirations and its movements.

15. (a) Write a brief note on pulmonary and systemic circulation.

Or

- (b) Heart sounds.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Draw a neat diagram of female reproductive system and explain the functions of each organ.

Or

- (b) Define ECG and write any five changes in ECG with causes.

17. (a) Detail about immunization schedule.

Or

- (b) Define B.P. Explain the regulation of blood pressure.

18. (a) Discuss endocrine glands and their secretions.

Or

- (b) Name the components of blood and their functions.
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**C-0713**

**Sub. Code**

**92912**

**P.G. DIPLOMA EXAMINATION, APRIL 2019**

**Non Semester**

**PERFUSION TECHNOLOGY**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Calculate of Cardic index.
2. Formula of CI and CO.
3. Occulsion checking.
4. Prime.
5. Define Hemodynamics.
6. Arterial line filter.
7. Layers of heart.
8. Describe heat exchangers.
9. Types of Cannulas.
10. Definition of Anatomy and its divisions.

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

11. (a) Write the principle of Oxygenators.  
Or  
(b) Functions of blood.
12. (a) List out the complications of Cardioplegia and explain.  
Or  
(b) Draw the divisions of coronary arteries and explain the areas of heart supplied by it.
13. (a) IABP.  
Or  
(b) Difference between artery and Vein.
14. (a) Calculations of blood in the prime.  
Or  
(b) Ultra filtration—CUF and MUF.
15. (a) ECMO.  
Or  
(b) Hypothermia-classification.

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

16. (a) Cardiopulmonary bypass.  
Or  
(b) Write the types and principles of heart lung machine that are in use in present days.

17. (a) Conduct of Perfusion.

Or

(b) Describe the physiology of pulsatile flow.

18. (a) Explain in detail about originators.

Or

(b) Draw a neat diagram of heart and flow of blood through heart.

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C-0714

Sub. Code

92913

**P.G. DIPLOMA EXAMINATION, APRIL 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 hypertension, hypotension.
2. Name the different types of tissues in the body.
3. What is suffix? Give two examples.
4. Name the divisions of spinal column.
5. What is systole, diastole?
6. Components of blood.
7. Define Homeostasis, Hemostasis.
8. Complete :
  - (a) Painful swallowing \_\_\_\_\_
  - (b) Paralysis of four limbs \_\_\_\_\_
9. Define respiration and write its phases.
10. List out the different planes of body.

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

11. (a) List out and explain the heart valves.

Or

- (b) Name the plasma protein and write its function.

12. (a) Discuss the therapeutic medical terms related with hospital laboratory.

Or

- (b) Describe the blood grouping system.

13. (a) Brief in detail about word building.

Or

- (b) Write any five diagnostic terms related to respiratory system.

14. (a) Detail about prefixes used in blood system.

Or

- (b) Write brief on directional and positional terms.

15. (a) Discuss the therapeutic medical terms related with radiology.

Or

- (b) Discuss about pulmonary circulation and systemic circulation.



**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in brief
- (i) Spirometry
  - (ii) Chest physiotherapy
  - (iii) Bronchoscopy
  - (iv) ECHO
  - (v) Pyclogram.

Or

- (b) Discuss about major organs of cardiovascular system.
17. (a) Discuss in detail about the rules for forming the medical term.

Or

- (b) Explain the disorders of platelets and its laboratory investigations.
18. (a) Name the different values of the heart with its functions and explain the diseases that affects heart values.

Or

- (b) Explain and Tracheo Bronchial tree and write and five inflammatory diseases affecting respiratory system.
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<b>C-0715</b>
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<b>Sub. Code</b>
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<b>92914</b>
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**P.G. DIPLOMA EXAMINATION, APRIL 2019**

**Non-Semester**

**Prefusion Technology**

**BIOCHEMISTRY**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Ribosome
2. Starch
3. Glycoprotein
4. Disaccharides
5. Scurvy
6. pH
7. Metabolic acidosis
8. Rickets
9. Coenzyme
10. Invert sugar.

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

11. (a) Classification of enzymes.

Or

- (b) Classification of amino acids based on metabolic fate.

12. (a) Deficiency of Vitamin A.

Or

- (b) Enzyme inhibition.

13. (a) Polysaccharides.

Or

- (b) Essential fatty acids.

14. (a) Urea cycle.

Or

- (b) Structure of proteins.

15. (a) Water balance.

Or

- (b) Factors affecting enzyme activity.

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

16. (a) Write in detail about Vitamin D.

Or

- (b) Principle, Procedure and Applications of chromatography.

17. (a) Write in detail about metabolism or hemoglobin and jaundice.

Or

- (b) Principle, procedure and applications of electrophoresis.
18. (a) Define pH. Write in detail about Acid-Base regulation.

Or

- (b) What is an isoenzyme. Explain with example.
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**C-0716**

**Sub. Code**

**92915**

**P.G. DIPLOMA EXAMINATION, APRIL 2019**

**Non Semester**

**Prefusion Technology**

**PHARMACOLOGY**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is a prescription?
2. Define pharamacokinetics.
3. Opiod Analgesics.
4. Components of blood.
5. Blood forming organs.
6. Source of drugs.
7. Insulin.
8. Irrational drug therapy.
9. What are antibiotics?
10. Drug allergy.

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

11. (a) Write notes on “what the drug does to the body pharmacodynamics”.

Or

- (b) Explain the various forms of drugs abuse.

12. (a) What are the various methods of prolonging drug action?

Or

- (b) Classification of drugs.

13. (a) Discuss the effects and modes of administration of adrenaline.

Or

- (b) Write notes on drug interaction.

14. (a) Write notes on local anaesthetics, their preparation concentration and therapeutic uses.

Or

- (b) Explain excretion of drugs from the body.

15. (a) Blood and Blood forming organs.

Or

- (b) Write notes on Beta-Blockers.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) What is drug distribution and write notes on factors affecting drug distribution?

Or

- (b) Write an elaborate notes on antihypertensive drugs.
17. (a) Discuss drug development and write notes on drug assay.

Or

- (b) How drugs get metabolised in body and write the factors that influence biotransformation?
18. (a) Discuss the factors that modify the effects of drugs.

Or

- (b) Write notes on drug absorption and write various routes of administration of drugs.
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