QP Code: Reg. No.:……

First Year B.Sc Perfusion Technology Degree Examinations

(Model Question Paper)

Basic Anatomy (Including Histology)

Time: 3hrs **Maximum marks: 80**

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essay **(2x10=20)**

1. Describe heart under the following headings:
   - Coverings
   - Surfaces
   - Arterial supply
   - Right atrium
   - Applied importance

   (2+2+2+3+1=10)
2. Describe right lung under the following headings:
   - Surfaces and borders
   - Hilum
   - Microscopy
   - Broncho pulmonary segments

   (2+2+3+3=10)

Short notes **(6x5=30)**

3. Kidney
4. Connective tissue cells
5. Skin
6. Spleen
7. Prostate
8. Uterus

Answer briefly **(10x3=30)**

9. Circle of Willis
10. Deltoid
11. Cornea
12. Transitional epithelium
13. Appendix
14. Fertilization
15. Gall bladder
16. Haversian system
17. Aorta
18. Left and right coronary artery

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QP Code: Reg. No.:……

First Year B.Sc Perfusion Technology Degree Examinations

(Model Question Paper)

Physiology

Time: 3hrs **Maximum marks: 80**

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essay **(2x10=20)**

1. Define coagulation of blood and name the coagulation factors. Explain the intrinsic mechanism of blood coagulation (1+4+5=10)
2. Define blood pressure and mention its normal values. What are the determinants of blood pressure. Add a note on regulation of stroke volume. (2+3+5=10)

Short notes **(6x5=30)**

3. Plasma proteins
4. Heart sounds
5. Rh factor
6. Refractive errors
7. Factors affecting glomerular filtration rate
8. Action potential on a nerve and its ionic basis

Answer briefly **(10x3=30)**

9. Surfactant
10. Vital capacity
11. Cretinism
12. Triple response
13. E.S.R
14. Anticoagulants
15. Tests of ovulation
16. Selection criteria of a blood doner
17. Hemoglobin
18. conducting system of heart

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QP Code: Reg. No.:……

First Year B.Sc Perfusion Technology Degree Examinations

(Model Question Paper)

Microbiology

Time: 3hrs **Maximum marks: 80**

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essay **(2x10=20)**

1. Define sterilization. List the different methods of sterilization and explainthe principles involved in the functioning of autoclave and diagram. Mention the articles which can be sterilized by autoclave (2+2+4+2=10)
2. Describe the clinical features, laboratory diagnosis, prophylaxis and treatment of tetanus (3+3+4=10)

Short notes **(6x5=30)**

3. Hospital acquired infections
4. Bacterial growth curve
5. Infective endocarditis
6. Biomedical waste management
7. Hydatid cyst
8. Laboratory diagnosis of pulmonary tuberculosis

Answer briefly **(10x3=30)**

9. Differential staining
10. Morphology of bacteria
11. Bacterial filers
12. Anaerobic culture methods
13. Hot air oven
14. Candidiasis
15. Enrichment media
16. Immunization schedule
17. Antiseptics
18. Antibiotic sensitivity testing

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QP Code: Reg. No.:……

First Year B.Sc Perfusion Technology Degree Examinations

(Model Question Paper)

Pathology

Time: 3hrs **Maximum marks: 80**

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essay **(2x10=20)**

1. Describe the microscopic examination of urine in detail
2. Explain the tissue processing for routine paraffin sections in detail

Short notes **(6x5=30)**

3. H & E staining
4. PCV
5. Normal haemostatic pathway
6. Stool examination
7. Classification of fixatives with examples
8. Mounting technique and various mountants used

Answer briefly **(10x3=30)**

9. Findings of CSF in TB meningitis.
10. Horning and stropping.
11. Sputum examination.
12. Prothrombin time
13. Biomedical waste
14. Differences between transudate and exudate
15. Normal constituents of blood.
16. Cross matching.
17. Different types of urine sample.
18. Specific gravity estimation of urine.

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QP Code: Reg. No.:……

First Year B.Sc Perfusion Technology Degree Examinations

(Model Question Paper)

Biochemistry

Time: 3hrs **Maximum marks: 80**

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essay **(2x10=20)**

1. Explain the Henderson – Hasselbach equation. Describe the important body buffers. (6+4=10)
2. Define normality. Explain the preparation of exactly 0.1 N HCl solution by secondary titration procedure (2+8=10)

Short notes **(6x5=30)**

3. Ionization of water
4. Anticoagulants
5. Principle, parts and use of colorimeter
6. Care and cleaning of glass wares
7. Centrifuge
8. Estimation of serum electrolyte

Answer briefly **(10x3=30)**

9. Lipid profile
10. Basal metabolic rate
11. Pre analytical variables
12. Pauli's exclusion principle
13. Roth era's test
14. Blood urea estimation
15. Safety measures in the laboratory
16. Metabolic acidosis
17. pH meter
18. What is the normality of 12% NaOH solution

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