

**PARAMEDICAL BOARD, BANGALORE**  
**ANNUAL EXAMINATION AUGUST - 2018**  
**II DIPLOMA IN DIALYSIS TECHNOLOGY(RS2)**

Time: 3.00 HRS

Max Marks:100

**GENERAL INSTRUCTIONS:**

- i) The question paper has two parts A and B. Both the parts are compulsory.  
ii) Write neat diagrams wherever necessary, Handwriting should be legible.

**Subject: Biochemistry**

**Q P CODE: 5153**

- I. Short notes, answer any FOUR questions. 4 X 5 = 20 marks**
1. What are the factors affecting enzyme activity.
  2. Describe respiratory regulation of pH. Add a note on respiratory acidosis and respiratory alkalosis.
  3. Classify carbohydrates. Explain in detail about homopolyaccharides.
  4. Write the sources, biochemical functions and deficiency disorders of vitamin - B1.
  5. What are the methods of cholesterol estimation? Add a note on principle and procedure of cholesterol estimation by enzymatic method.

**II. Short answers 10 X 3 = 30 marks**

6. Define essential fatty acids. Name them.
7. Classify lipoproteins. How they are separated?
8. Name some organic and inorganic constituents of normal urine
9. Reference values of plasma proteins. How they are separated?
10. Define nucleosides and nucleotides with suitable example.
11. What is Fluorosis due to?
12. Describe the excretory and synthetic functions of liver.
13. What is creatinine clearance test?
14. How the quality of water is maintained in laboratory.
15. What are buffers? How buffer solution is prepared?

**Subject: Microbiology**

**Q P CODE: 5154**

**I. Short notes, answer any FOUR questions. 4 X 5 = 20 marks**

1. Hot air oven
2. Sterilization of operation theater (OT)
3. Bacterial Spore
4. Type I hypersensitivity
5. Universal precautions

**II. Short answers 10 X 3 = 30 marks**

6. Mention three contributions of Robert Koch
7. Mention three diseases caused by Streptococcus pyogenes
8. Koch's postulate
9. Mention three items sterilized by autoclave
10. Mention different routes of transmission of Hepatitis B virus
11. Name three different Gram positive cocci
12. Bacterial flagella
13. Mention different steps in Gram stain
14. Incineration
15. Hand hygiene

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**PARAMEDICAL BOARD, BENGALURU**  
**SUPPLEMENTARY EXAMINATION, FEBRUARY 2019**  
**II YEAR DIPLOMA IN**  
**DIALYSIS TECHNOLOGY**

**TIME: 3.0HRS**

**(RS-2 SCHEME)**

**MAX.MARKS.100**

**General Instructions:**

- viii. The question paper has TWO parts. Both parts are compulsory.
- ix. Write neat diagrams wherever necessary, handwriting should be legible.

**QP CODE: 5153, SECTION-A, BIOCHEMISTRY**

**I Short Notes – Answer any four**

**(4 x 5 = 20)**

1. Isoenzymes – Any Five
2. Abnormal constituents of urine
3. Renal regulation of p<sup>H</sup>
4. Heteropolysaccharides
5. Chylomicrons and LDL

**II Short Answers**

**(10 x 3 =30)**

6. Bence Jones Proteins
7. Definition of acid and base
8. Biogenic amines
9. Laws of photometry
10. K<sub>m</sub>
11. Derived lipids
12. Metabolic Acidosis
13. Vandenberg Test
14. Pattern of Cardiac Enzymes in heart diseases
15. Creatinine Clearance Test

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Mysore Road, Malavalli - 571 430, Mandya Dist.

**QP CODE: 5154, SECTION-B, MICROBIOLOGY**

**Write Short notes (any four)**

**4x5=20**

1. Koch postulates
2. Bacterial spore
3. Pasteurization
4. Universal precautions
5. Infection control measures

**Write short answers**

**5x3=15**

6. Name any three materials used to sterilize in Autoclave
7. Name three viral vaccines
8. List any three normal flora of skin
9. List any three Gram positive bacteria
10. List any three contributions of Louise Pasteur
11. Draw a neat labeled diagram of Hepatitis B
12. List the mode of spread of HIV
13. List the sterilization control of Hot air oven
14. Name any three infections caused by Staphylococcus aureus
15. Name any 3 chemical disinfectants

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**PARAMEDICAL BOARD, BENGALURU**  
**ANNUAL EXAMINATION, AUGUST 2019**  
**II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)**  
**TIME: 3 HRS (RS -2 SCHEME) MAX. MARKS: 100**  
**QP CODE: 5153, SECTION-A, BIOCHEMISTRY**  
**(ANSWER IN-BLUE BOOKLET ONLY)**

**I. SHORT NOTES – ANSWER ANY FOUR.**

**4×5=20**

1. Define carbohydrate? Write their classification.
2. Discuss the concept of acid base reaction.
3. Write in brief about renal function tests.
4. Define salt and write the classification.
5. Renal regulation of blood pH.

**II. SHORT ANSWERS**

**10×3=30**

6. Metabolic acidosis.
7. Different methods of glucose estimation.
8. Pattern of cardiac enzymes in heart disease.
9. Write different types of RNA and their functions.
10. Universal indicators.
11. Define hypertension? Write different types of hypertension.
12. Deionised water.
13. Define carbohydrate? Write their functions.
14. Lipoproteins.
15. Deficiencies of vitamin D.

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Mysore Road, Malavalli - 571 430, Mandya Dist.

**QP CODE: 5154, SECTION-B, MICROBIOLOGY**  
**(ANSWER IN-RED BOOKLET ONLY)**

**I. SHORT NOTES – ANSWER ANY FOUR.**

**4×5=20**

1. Differences between active and passive immunity.
2. Tetanus
3. Define sterilisation. Write in brief about moist heat sterilisation.
4. Segregation of biomedical waste.
5. Serological markers of Hepatitis B virus infection.

**II. SHORT ANSWERS**

**10×3=30**

6. Draw a neat labelled diagram of Human immunodeficiency virus.
7. Name three causative agents of meningitis.
8. Infections caused by Candida.
9. Name three live attenuated vaccines.
10. Name three causative agents for surgical site infection.
11. Enumerate three fungal opportunistic infections associated with HIV.
12. DPT vaccine
13. Pasteurisation
14. Mantoux test.
15. Significant bacteriuria.

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KARNATAKA NURSING & PARAMEDICAL SCIENCES EDUCATION (REGULATION) AUTHORITY  
PARAMEDICAL BOARD, BENGALURU  
SUPPLEMENTARY EXAMINATION, JANUARY 2020  
II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)  
QP CODE: 5153, SECTION-A, BIOCHEMISTRY (RS -2 SCHEME)  
(WRITE IN BLUE ANSWER BOOK)

TIME: 3 HRS

MAX. MARKS: 100

I. SHORT NOTES - ANSWER ANY FOUR. 4×5=20

1. Define enzyme? Write factors affecting enzyme activity.
2. Discuss in brief about abnormal constituents of urine.
3. Write in brief about liver function tests.
4. Define buffer? Write different types of buffer.
5. Define lipids? Write its classification..

II. SHORT ANSWERS. 10×3=30

6. Respiratory acidosis.
7. Different types of RO water.
8. Lipid profile.
9. Write three differences between DNA and RNA.
10. Essential amino acids with examples.
11. Define isoenzyme? Write two examples.
12. Creatinine clearance test.
13. Define protein? Write their functions.
14. Common indicators used for acids and bases.
15. Deficiencies of vitamin A.

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QP CODE: 5154, SECTION-B, MICROBIOLOGY (RS2 SCHEME)  
(WRITE IN RED ANSWER BOOK)

I. SHORT NOTES - ANSWER ANY FOUR. 4×5=20

1. Define sterilization. Add a note on Autoclave
2. Louis Pasteur
3. OT Sterilization
4. Bacterial growth curve
5. Classify Immunity. Add a note on Active immunity

II. WRITE SHORT ANSWERS 10 x 3 = 30

6. Name any three material used to sterilize in Hot air oven
7. Name three diseases caused by staphylococcus aureus
8. Name three gaseous disinfectants
9. Name any three lactose fermenters
10. Draw a neat labelled diagram of bacterial cell
11. List the sterilization control of Autoclave
12. Name any three nosocomial infections
13. Local Immunity
14. List any three Routes of Infection
15. List Bio-Medical waste disposal in a dialysis unit

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KARNATAKA NURSING & PARAMEDICAL SCIENCES EDUCATION (REGULATION) AUTHORITY  
PARAMEDICAL BOARD, BENGALURU  
ANNUAL EXAMINATION, NOVEMBER 2020

II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)

TIME: 1.30 Hrs (RS -2 SCHEME) MAX. MARKS: 100  
9.30 am to 11 am QP CODE: 5153, SECTION-A, BIOCHEMISTRY  
(WRITE IN BLUE ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR 4x5=20

- 1 HDL and LDL
- 2 Classification of amino acids with examples
- 3 Definition, classification and significance of isoenzymes
- 4 Renal regulation of acid base balance
- 5 Definition and classification of carbohydrates

SHORT ANSWERS 10x3=30

- 6 Functions of plasma proteins
- 7 Vandenberg's test
- 8 Abnormal components of urine
- 9 RO plant components and maintenance
- 10 Km and Vmax
- 11 Laws of photometry
- 12 List the normal serum values of creatinine, urea and uric acid
- 13 Factors affecting enzyme activity
- 14 List the normal values of electrolytes
- 15 Metabolic alkalosis

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TIME: 1.30 Hrs, QP CODE: 5154, SECTION-B, MICROBIOLOGY (RS-2 SCHEME)  
11 am to 12.30 pm (WRITE IN RED ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR 4x5=20

- 1 Define sterilization. Add a note on Autoclave
- 2 Bacterial growth curve
- 3 OT Sterilization
- 4 Classify Immunity, Add a note on Active immunity
- 5 Louis Pasteur

SHORT ANSWERS 10x3=30

- 6 Name any three material used to sterilize in Hot air oven
- 7 Name any three lactose fermenters
- 8 Local Immunity
- 9 List Bio-Medical waste disposal in a dialysis unit
- 10 List any three Routes of Infection
- 11 Name any three nosocomial infections
- 12 List the sterilization control of Autoclave
- 13 Draw a neat labelled diagram of hepatitis B
- 14 Name three gaseous disinfectants
- 15 Name three diseases caused by staphylococcus aureus

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KARNATAKA NURSING & PARAMEDICAL SCIENCES EDUCATION (REGULATION) AUTHORITY  
PARAMEDICAL BOARD, BENGALURU  
SUPPLEMENTARY EXAMINATION, JULY 2021

II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)

TIME: 1.30 Hrs (RS -2 SCHEME) MAX. MARKS: 100  
9.30 am to 11 am QP CODE: 5153, SECTION-A, BIOCHEMISTRY  
(WRITE IN BLUE ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR 4x5=20

- 1 Plasma proteins classification and their reference values
- 2 Discuss the concept of acid-base reaction
- 3 Write briefly on Liver function tests
- 4 Write in detail about different types of RO water
- 5 What are Isoenzymes? Give examples and clinical importance

SHORT ANSWERS 10x3=30

- 6 Universal Indicators
- 7 Deionised water
- 8 Deficiency diseases of Vitamin A
- 9 Name the types of RNAs. Mention their functions
- 10 Different methods of cholesterol estimation
- 11 Lipid profile
- 12 Mention normal serum calcium level. Write two functions of calcium
- 13 Lipoproteins
- 14 Water crystallization
- 15 Acid-base disorders

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Mysore Road, Malavalli - 571 430, Mandya Dist.

TIME: 1.30 Hrs, QP CODE: 5154, SECTION-B, MICROBIOLOGY (RS-2 SCHEME)

11 am to 12.30 pm (WRITE IN RED ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR 4x5=20

- 1 Pathogenicity of clostridium tetani
- 2 Moist heat sterilization
- 3 Morphology of bacteria
- 4 Operation theatre sterilization
- 5 Delayed hypersensitivity

SHORT ANSWERS 10x3=30

- 6 Pasteurization
- 7 Active immunity
- 8 Atopy
- 9 Joseph Lister
- 10 Line infections
- 11 Prophylaxis
- 12 Hepatitis infection
- 13 Classification of streptococci
- 14 Toxins
- 15 Live and killed vaccines

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KARNATAKA NURSING & PARAMEDICAL SCIENCES EDUCATION (REGULATION) AUTHORITY  
PARAMEDICAL BOARD, BENGALURU  
ANNUAL EXAMINATION, NOVEMBER 2021

II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)

TIME: 1.30 Hrs (RS -2 SCHEME) MAX. MARKS: 100

9.30 am to 11 am QP CODE: 5153, SECTION-A, BIOCHEMISTRY

(WRITE IN BLUE ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR 4x5=20

- 1 Explain Arrhenius concept of acids and bases with examples
- 2 Give the classification of carbohydrates with examples
- 3 Plasma proteins- definition, classification and reference values
- 4 Classification of enzymes with one example for each class
- 5 Acid -base disorders

SHORT ANSWERS 10x3=30

- 6 Jaundice-definition and types
- 7 Essential and non-essential amino acids
- 8 Name three abnormal constituents of urine
- 9 Pattern of cardiac enzymes in heart diseases
- 10 Name the methods for Estimation of blood glucose and mention the normal values of a)FBS and b)PPBS
- 11 Universal indicators
- 12 Name three fat soluble vitamins
- 13 Types of RNA and their functions
- 14 Name three isoenzymes
- 15 Principle of colorimetry

TIME: 1.30 Hrs, QP CODE: 5154, SECTION-B, MICROBIOLOGY (RS-2 SCHEME)

11 am to 12.30 pm (WRITE IN RED ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR 4x5=20

- 1 Bacterial filters
- 2 Bacterial endospore
- 3 Acquired immunity
- 4 Candida
- 5 HIV

SHORT ANSWERS 10x3=30

- 6 Universal precautions
- 7 Formaldehyde
- 8 Capsule
- 9 Louis Pasteur
- 10 Name three motile bacteria
- 11 Stages in bacterial growth curve
- 12 Name three anaerobic bacteria
- 13 Name three gram positive cocci
- 14 Name three RNA viruses
- 15 Name three disease caused by *E.coli*

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