Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – 18 May 2022

Time: Three Hours **Max. Marks: 30 Marks**

BIOCHEMISTRY
(RS2, RS3, RS4 & RS5)
Q.P. Code: 1756

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary. Answer All Questions
(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS

1 x 10 = 10 Marks

1. Define Gluconeogenesis. Describe in detail about pathway of Gluconeogenesis.

SHORT ESSAYS

2 x 5 = 10 Marks

2. Differentiate between prokaryotic and Eukaryotic cell.
3. Explain the metabolism of proteins.

SHORT ANSWERS

5 x 2 = 10 Marks

4. List four functions of cell wall.
5. Define Osmosis.
6. List four functions of Lipids.
7. Lit four signs of deficiency of Vitamin C.
8. List four advantages of an ELISA test.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – 02-Feb-2022

Time: Three Hours **Max. Marks: 30 Marks**

BIOCHEMISTRY
(RS2, RS3, RS4 & RS5)
Q.P. Code: 1756

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary. Answer All Questions
(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS

1 x 10 = 10 Marks

1. Define Gluconeogenesis. How lactate is converted into glucose in the body?

SHORT ESSAYS

2 x 5 = 10 Marks

2. Write a short note on Active Transport mechanism.
3. Explain the classification of enzymes with one example.

SHORT ANSWERS

5 x 2 = 10 Marks

4. List out four functions of Centromere.
5. Essential Amino acids
6. Write down four functions of Lipids.
7. List out four signs of Deficiency of Vitamin C.
8. Enlist four functions of Keratin.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – 26-Jul-2021

Time: Three Hours **Max. Marks: 30 Marks**

BIOCHEMISTRY
(RS3, RS4 & RS5)
Q.P. Code: 1756

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary. Answer All Questions
(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS

1 x 10 = 10 Marks

1. Describe the steps and regulation of Tricarboxylic acid cycle.

SHORT ESSAYS

2 x 5 = 10 Marks

2. Explain the composition and functions of a cell.
3. Describe the factors that affect denaturation of proteins.

SHORT ANSWERS

5 x 2 = 10 Marks

4. List four functions of Golgi bodies.
5. Define symport.
6. List four functions of steroid hormones.
7. List four signs of Vitamin D deficiency.
8. List four uses of an ELISA test.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – 08-Feb-2021

Time: Three Hours **Max. Marks: 30 Marks**

BIOCHEMISTRY
(RS3, RS4 & RS5)
Q.P. Code: 1756

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary. Answer All Questions
(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS

1 x 10 = 10 Marks

1. Describe in detail steps, regulation, energetics and Amphibolic nature of Tricarboxylic acid cycle.

SHORT ESSAYS

2 x 5 = 10 Marks

2. Describe fluid mosaic model of cell structure.
3. Explain the digestion and absorption of proteins in body.

SHORT ANSWERS

5 x 2 = 10 Marks

4. List out four functions of Mitochondria.
5. Define Isomerism.
6. Name four Steriod Hormones.
7. List out four signs of Deficiency of Vitamin D.
8. Write down four advantages of ELISA test.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – 02-Sep-2020

Time: Three Hours **Max. Marks: 30 Marks**

BIOCHEMISTRY
(RS2, RS3 & RS4)
Q.P. Code: 1756

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary. Answer All Questions
(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS **1 x 10 = 10 Marks**

1. Describe the β-oxidation of fattyacids. Write a note on the energetics of β-oxidation of palmitic acid.

SHORT ESSAYS **2 x 5 = 10 Marks**

2. Write a short note on Transport across the cell membrane.
3. Explain Denaturation of Proteins.

SHORT ANSWERS **5 x 2 = 10 Marks**

4. List out four Functions of Endoplasmic Reticulum.
5. Define Von Gierke's Disease.
6. Define Lactose Intolerance.
7. List down functions of Vitamin K.
8. Enlist four functions of Keratin.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – SEP-2019

Time: Three Hours **Max. Marks: 30 Marks**

BIOCHEMISTRY
(RS2, RS3 & RS4)
Q.P. Code: 1756

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary. Answer All Questions
(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS

1 x 10 = 10 Marks

1. Write down the Definition, classification and biological importance of carbohydrates?

SHORT ESSAYS

2 x 5 = 10 Marks

2. Write a short note on the functions of Calcium.
3. Describe briefly about Ornithine- urea cycle.

SHORT ANSWERS

5 x 2 = 10 Marks

4. List out four functions of mitochondria.
5. Define Pompe's Disease.
6. List down the names of ketone bodies.
7. List out four biomedical importance of Glycogen.
8. Define Agglutination.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – APRIL-2019

Time: 3 Hours **Max. Marks: 30 Marks**

Biochemistry

(RS-3 & RS-4)

Q.P. Code : 1756

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

(Note : Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe Gluconeogenesis. Describe in detail about the pathway of gluconeogenesis.
2. Write the chemistry and biochemical functions of B-complex vitamins.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Describe the fluid mosaic structure of cell membrane.
4. Explain the lock and key model of enzyme action.
5. Urea cycle.

SHORT ANSWERS (Answer all) **5 x 2 = 10 Marks**

6. Write the four functions of billirubin.
7. Write the precautions need to be taken before performing GTT.
8. Essential amino acids.
9. Function of Vitamin A.
10. Write the normal level of a) Serum albumin and b) Serum protein.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – OCT-2018

Time: 3 Hours **Max. Marks: 40 Marks**

Biochemistry

Q.P. Code : 1749

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

(Note : Both QP Codes 1748 and 1749 are to be answered within total duration of 3 hours)

LONG ESSAYS (Any One) **1 x 10 = 10 Marks**

1. Describe urea cycle with its disorders.
2. Describe the sources, RDA, biochemical functions and deficiency manifestations of Vitamin A.

SHORT ESSAYS (Any Three) **3 x 5 = 15 Marks**

3. Glycogenesis
4. Factors affecting enzyme activity
5. Polysaccharides
6. Biochemical functions and deficiency manifestations of pyridoxine

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Blood buffers
8. Secondary structures of proteins
9. Biochemical functions of calcium
10. Importance of HMP shunt pathway
11. Mention the normal serum levels of (a) Creatinine (b) Bilirubin (c) Sodium

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – APRIL-2018

Time: 3 Hours **Max. Marks: 30 Marks**

Biochemistry

Q.P. Code: 1756

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe the sources, biochemical functions, requirement and deficiency manifestations of Vitamin C.
2. Describe the structural organization of proteins. Add a note on the importance of primary structure.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Fluid mosaic model of cell membrane
4. Metabolic acidosis
5. Urea cycle

SHORT ANSWERS (Answer all) **5 x 2 = 10 Marks**

6. Define essential fatty acids and give examples.
7. Mention two enzymes of diagnostic importance in liver diseases.
8. Coenzyme forms of Thiamine and Pantothenic acid
9. Mention two causes of Glycosuria.
10. Give the normal values of
    a. Serum Creatinine
    b. Serum Urea

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – SEP-2017

Time: 3 Hours **Max. Marks: 30 Marks**

Biochemistry

Q.P. Code: 1756

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Explain in detail the steps involved in Aerobic Glycolysis and add a note on its energetics and regulation.
2. Classify Enzymes. Explain the properties of enzymes and influence of various factors on enzyme activity.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Functions of lipoproteins
4. Mechanism of Antibody Production
5. Functional classification of proteins

SHORT ANSWERS (Answer all) **5 x 2 = 10 Marks**

6. Vitamin E
7. Write two functions of calcium.
8. Metabolic acidosis
9. Steroid Hormones
10. Mention the normal levels of Serum Chloride and Serum Sodium.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – APRIL 2017

Time: 3 Hours **Max. Marks: 30 Marks**

Biochemistry

Q.P. Code : 1756

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

(Note : Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe the sources, biochemistry, functions, requirement and deficiency manifestations of Vitamin A.
2. Describe the reactions of the urea cycle. Add a note on disorders of Urea Cycle.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Secondary structure of proteins.
4. Ketone bodies
5. Reducing Disaccharides.

SHORT ANSWERS (Answer all) **5 x 2 = 10 Marks**

6. Essential amino acids
7. HLA Antigen
8. Beriberi
9. Anti-oxidant
10. Give the normal blood levels of - Urea and Creatinine.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – SEP-2016

e: 3 Hours

Max. Marks: 30 Marks

Biochemistry

Q.P. Code: 1756

nswers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

IG ESSAYS (Answer any One) 1 x 10 = 10 Marks

Explain the factors regulating blood glucose level in the human body.

Explain beta oxidation of Palmitic Acid. Add a note on energetics.

ORT ESSAYS (Answer any Two) 2 x 5 = 10 Marks

Disaccharides

Urea cycle

Biochemical functions of plasma proteins

OR ANSWERS (Answer all) 5 x 2 = 10 Marks

Name the coenzyme form of riboflavin and niacin.

Rothera's test

Normal levels of serum levels of - Cholesterol and Total Proteins

Transamination

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – May 2016

Time: 3 Hours **Max. Marks: 30 Marks**

Biochemistry

Q.P. Code: 1756

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Give the sources, biochemistry, functions, deficiency manifestations and R.D.A of vitamin A.
2. What is the normal pH of blood? Describe the role of lungs and kidneys in the maintenance of normal Blood pH.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Synthesis and significance of ketone bodies
4. Discuss biochemical functions of Thiamine.
5. GTT

SHORT ANSWERS (Answer all) **5 x 2 = 10 Marks**

6. Dietary fibres
7. Essential Amino-acids
8. Anti-oxidants
9. Normal blood values of (a) Total Cholesterol (b) Urea
10. Conjugated proteins

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – SEPTEMBER 2015

Time: 3 Hours **Max. Marks: 30 Marks**

Biochemistry

Q.P. Code: 1756

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe sources, RDA, biochemistry, functions and deficiency manifestation of vitamin D.
2. Enumerate the reactions of Glycolysis. Add a note on its energetics.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Polysaccharides
4. Renal regulations of blood pH
5. Define and classify lipoproteins. Mention their significance.

SHORT ANSWERS **5 x 2 = 10 Marks**

6. Benedict's test
7. Name the Ketone bodies.
8. Pellagra
9. Name bile salts and its role in digestion.
10. Normal serum level of Sodium and Total Choiesterol

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – September 2014

Time: 3 Hours **Max. Marks: 30 Marks**

Biochemistry

Q.P. Code: 1756

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. What is Gluconeogenesis? Explain Tricarboxylic Acid Cycle.
2. Describe the digestion and absorption of proteins.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Explain the Glucose tolerance test.
4. Explain the mechanisms that maintain pH of Blood.
5. Briefly describe the types of immunoglobulin.

SHORT ANSWERS **5 x 2 = 10 Marks**

6. Write the normal range of (a) Serum Calcium, (b) Serum Potassium.
7. Golgi apparatus
8. Functions of Vitamin D
9. Electrophoresis
10. Sodium Pump

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – April 2014

Time: 3 Hours **Max. Marks: 30 Ma**

Biochemistry

Q.P. Code : 1756

our answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessa
(Note : Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Ma**

1. Describe the sources, biochemical functions, requirement and deficiency manifestations Vitamin D.
2. What are ketone bodies? How are they formed and utilized in the body?

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Ma**

3. Denaturation of proteins
4. Essential Fatty Acids
5. Why is sucrose a non reducing sugar?

SHORT ANSWERS **5 x 2 = 10 Ma**

6. Anomers
7. Ketone bodies
8. Name the bile salts and their function
9. Benedict's test
10. Give the normal levels of serum calcium and blood urea

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – Aug 2013

Time: 3 Hours **Max. Marks: 30 Marks**

Biochemistry

Q.P. Code : 1756

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary
(Note : Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Give the IUB classification of enzymes with two examples for each class.
2. Give the sources, functions, deficiency manifestations and RDA of Vitamin C.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Deficiency manifestations of vitamin A.
4. Urea cycle.
5. Functions of plasma proteins.

SHORT ANSWERS **5 x 2 = 10 Marks**

6. Essential amino acids.
7. Rothera's test.
8. Mention two proteolytic enzymes.
9. Name the coenzyme form of Thiamine and Pyridoxine.
10. Normal blood levels of cholesterol and urea.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Nursing Degree Examination – Mar 2013

Time: 3 Hours **Max. Marks: 30 Marks**

Biochemistry

Q.P. Code : 1756

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

(Note : Both QP Codes 1755 and 1756 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe the reactions of gluconeogenesis? Mention its significance.
2. What are the different types of enzyme inhibition? Explain with suitable examples.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Primary structure of proteins
4. Isoenzymes and their clinical significance
5. Biological role of pyridoxal phosphate

SHORT ANSWERS **5 x 2 = 10 Marks**

6. What is the daily requirement of vitamin A and D.
7. Glucose tolerance test
8. Active transport
9. Define Km value. What is its significance?
10. Give the normal levels of serum cholesterol and triglycerides

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