Q.P. CODE:417/401

DR. NTR UNIVERSITY OF HEALTH SCIENCES::AP::VIJAYAWADA-520 008
B.D.S. DEGREE EXAMINATION – JANUARY, 2018
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(*NR & OR*)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Define cardiac output. Explain the factors influencing cardiac output. *1+8=9*

WRITE SHORT NOTES ON: *4x4=16*

2) Secondary sexual characters in female
3) Nerve action potential
4) Control of gastric secretion
5) Micturition reflex

WRITE BRIEFLY ON: *5x2=10*

6) Hypermetropia
7) Calcitonin
8) Hypoxia
9) Functions of hypothalamus
10) Acromegaly

PART-B - BIOCHEMISTRY(35 MARKS)

11) Write the dietary sources, daily requirements, functions of calcium and regulation of serum calcium. *2+1+2+4=9*

WRITE SHORT NOTES ON: *4x4=16*

12) Metabolic changes in diabetes mellitus
13) Abnormal haemoglobins
14) Immunoglobulins
15) Competitive enzyme inhibition and its importance in medicine

WRITE BRIEFLY ON: *5x2=10*

16) Give the coenzyme form and deficiency manifestations of Vitamin B_{12}
17) Different types of RNAs and their functions
18) Biochemical Functions of Copper
19) Enzymes of diagnostic importance in Liver disease
20) What are the normal levels of
    a) Serum Creatinine
    b) Serum Uric Acid

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DR. NTR UNIVERSITY OF HEALTH SCIENCES::AP::VIJAYAWADA-520 008
B.D.S. DEGREE EXAMINATION – JUNE/JULY, 2017
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(NR & OR)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Describe nervous and chemical regulation of respiration 9

WRITE SHORT NOTES ON: 4x4=16

2) Short term blood pressure regulating mechanisms
3) Composition and functions of Gastric Juice
4) Visual Pathway
5) Cushing's syndrome

WRITE BRIEFLY ON: 5x2=10

6) Taste buds
7) Functions of Lymph
8) Rh blood group
9) Female contraceptives
10) Saltatory conduction in nerve fibres

PART-B - BIOCHEMISTRY(35 MARKS)

11) Outline the steps of urea cycle. Indicate the reference range for blood urea. 9

WRITE SHORT NOTES ON: 4x4=16

12) Digestion of carbohydrates
13) Functional and Nutritional classification of Proteins
14) Functions of Calcium
15) Ketosis

WRITE BRIEFLY ON: 5x2=10

16) Glycogen
17) Functions of plasma albumin
18) Hormones in blood glucose regulation
19) Source and deficiency manifestations of Vitamin C
20) Function and deficiency of Iodine

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DR. NTR UNIVERSITY OF HEALTH SCIENCES::AP::VIJAYAWADA-520 008

B.D.S. DEGREE EXAMINATION – JANUARY, 2017

FIRST BDS EXAMINATION

GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

(NR & OR)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.

Answer all questions.

Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Explain stages of Erythropoiesis. Add a note on factors required for erythropoiesis. 5+4=9

WRITE SHORT NOTES ON: 4x4=16

2) Progesterone
3) Properties of smooth muscle
4) Functions of bile
5) Factors influencing glomerular filtration rate

WRITE BRIEFLY ON: 5x2=10

6) Myopia
7) Forms of oxygen transport
8) Functions of CSF
9) Insulin
10) Components of a reflex arc

PART-B - BIOCHEMISTRY(35 MARKS)

11) Outline the Glycolytic pathway for the oxidation of glucose in the body. What its energetics? 9

WRITE SHORT NOTES ON: 4x4=16

12) Biochemical functions of Vit. A
13) Competitive inhibition
14) Beta oxidation of fatty acids
15) Characteristics of genetic code

WRITE BRIEFLY ON: 5x2=10

16) Significance of HMP pathway
17) Essential Amino acids
18) Biochemically important products from cholesterol
19) Factors regulating plasma calcium
20) Basal metabolic rate and its importance

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DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA :: AP
B.D.S. DEGREE EXAMINATION – JANUARY, 2016
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(*NR & OR*)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Give the composition of Saliva and explain the functions of Saliva — *4+5=9*

WRITE SHORT NOTES ON: — *4x4=16*

2) "Sino - Aortic reflex"
3) Composition and functions of "Gastric Juice"
4) Plasma proteins
5) "Oxygen- Hemoglobin dissociation Curve"

WRITE BRIEFLY ON: — *5x2=10*

6) Dwarfism
7) Puberty
8) Rhesus Factor
9) Hypermetropia
10) Stages of spermatogenesis

PART-B - BIOCHEMISTRY(35 MARKS)

11) How do you classify enzymes? What is the effect of pH, temperature and substrate concentration on enzyme activity? — *2+1+2+4=9*

WRITE SHORT NOTES ON: — *4x4=16*

12) Plasma Lipoproteins.
13) Metabolic changes in Diabetes Mellitus
14) Explain the biochemical role and deficiency manifestations of Vitamin C
15) Glycolysis

WRITE BRIEFLY ON: — *5x2=10*

16) Essential fatty acids
17) Gout
18) Transamination
19) Factors affecting Calcium absorption
20) What are the normal levels of the following?
    a) Serum Potassium b) Serum cholesterol

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DR. NTR UNIVERSITY OF HEALTH SCIENCES::AP::VIJAYAWADA-520 008
B.D.S. DEGREE EXAMINATION – JUNE/JULY, 2016
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(NR & OR)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Define cardiac cycle. Enumerate its different phases. Explain the left ventricular pressure changes during a cardiac cycle with the help of a graph. *1+3+5=9*

WRITE SHORT NOTES ON: *4x4=16*

2) Testosterone
3) Taste buds
4) Functions of large intestine
5) Functions of proximal convoluted tubule

WRITE BRIEFLY ON: *5x2=10*

6) Presbyopia
7) Forms of carbon dioxide transport
8) Functions of cerebellum
9) Cortisol
10) Cretinism

PART-B - BIOCHEMISTRY(35 MARKS)

11) Write the dietary sources, daily requirements and functions of calcium. How serum calcium level is regulated? *2+2+2+3=9*

WRITE SHORT NOTES ON: *4x4=16*

12) Anaphylaxis
13) Sources, biochemical functions and deficiency symptoms of thiamin
14) Gluconeogenesis
15) Ketogenesis

WRITE BRIEFLY ON: *5x2=10*

16) Name the stages of transcription
17) Protein Calorie Malnutrition
18) Dietary Fibre
19) Serum enzymes as liver function tests
20) Functions of Vitamin C

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B.D.S. DEGREE EXAMINATION – JANUARY, 2015
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(*NR & OR*)

Time : 3 Hours **Max. Marks : 70**

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) **Describe the nervous regulation of respiration. Add a note on Herring – Breuer's reflex.** 9

WRITE SHORT NOTES ON: 4x4=16

2) **Physiological changes in pregnancy**
3) **Visual pathway**
4) **Functions of lymph**
5) **Functions of blood**

WRITE BRIEFLY ON: 5x2=10

6) **Taste buds**
7) **Neuron**
8) **3 hormones regulating plasma calcium**
9) **Functions of Saliva**
10) **Peristalsis**

PART-B - BIOCHEMISTRY(35 MARKS)

11) **Outline the pathway of aerobic glycolysis. Add a note on its energetics.** 9

WRITE SHORT NOTES ON: 4x4=16

12) **Name the ketone bodies. How are they formed?**
13) **Functions of Vitamin A**
14) **Name the types of ribonucleic acid (RNA), mention their important structural features and functions.**
15) **Explain the diagnostic importance of plasma enzymes with any three examples.**

WRITE BRIEFLY ON: 5x2=10

16) **Functions of albumin**
17) **Mention the normal blood levels of : Calcium, cholesterol, urea and creatinine**
18) **Function and deficiency of iodine**
19) **Essential fatty acids**
20) **Name any two disaccharides and give their composition**

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B.D.S. DEGREE EXAMINATION – JANUARY, 2014
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(*NR & OR*)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Define blood pressure. What are the factors affecting blood pressure? Describe the regulation of blood pressure. 2+3+4=9

WRITE SHORT NOTES ON: 4x4=16

2) Estrogen
3) Properties of Cardiac muscle
4) Composition and functions of saliva
5) Functions of kidney

WRITE BRIEFLY ON: 5x2=10

6) Functions of Rods and Cones
7) Mass reflex
8) Secretions of anterior pituitary
9) Composition of pancreatic juice
10) Deglutition

PART-B - BIOCHEMISTRY(35 MARKS)

11) Outline the steps of Glycolysis. 9

WRITE SHORT NOTES ON: 4x4=16

12) Classify enzymes
13) Electron transport chain
14) Vitamin A
15) Ketogenesis

WRITE BRIEFLY ON: 5x2=10

16) Basal Metabolic Rate (BMR)
17) Rickets
18) Biologically important peptides
19) Essential fatty acids
20) Normal values of blood urea and serum creatinine

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B.D.S. DEGREE EXAMINATION – JUNE, 2014
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(*NR & OR*)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Mention the names of clotting factors in proper order. Explain the intrinsic mechanism of blood clotting. 4+5=9

WRITE SHORT NOTES ON: 4x4=16

2) Chemoreceptors
3) Regulation of gastric juice secretion
4) Actions of growth hormone
5) Functions of hypothalamus

WRITE BRIEFLY ON: 5x2=10

6) Feto placental unit
7) Stretch reflex
8) All or None law
9) Taste pathway
10) Male contraceptive methods

PART-B - BIOCHEMISTRY(35 MARKS)

11) Enumerate the sources, daily requirement and functions of calcium. Explain the regulation of serum calcium level. 2+1+2+4=9

WRITE SHORT NOTES ON: 4x4=16

12) Digestion and absorption of Carbohydrates.
13) Significance of citric acid cycle
14) Salient features of double helical structure of DNA
15) Influence of any four factors on enzyme activity.

WRITE BRIEFLY ON: 5x2=10

16) Name any two glycosaminoglycans, mention their functions.
17) Von-Gierke's disease
18) Give the normal pattern of serum protein electrophoresis
19) Name the biologically important compounds formed from cholesterol
20) Salient features of genetic code.

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B.D.S. DEGREE EXAMINATION – JUNE, 2012
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(NR & OR)

Time : 3 Hours **Max. Marks : 70**

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Explain the stages of erythropoiesis. Add a note on factors required for erythropoiesis. 9

WRITE SHORT NOTES ON: 4x4=16

2) Draw a labelled diagram of spirogram and give normal values of any two lung volumes and any two lung capacities.
3) Compare and contrast actions of Epinephrine and norepinephrine.
4) What is referred pain? Explain any one theory of referred pain.
5) Explain the renin-angiotensin mechanism of regulation of blood pressure.

WRITE BRIEFLY ON: 5x2=10

6) Pavlov's pouch
7) Arterial pulse
8) Neuroglia
9) Insulin clearance
10) Cyanosis

PART-B - BIOCHEMISTRY(35 MARKS)

11) Outline the Reactions of Citric Acid Cycle. What are it's Energetics? 9

WRITE SHORT NOTES ON: 4x4=16

12) Role of kidney in regulating PH of blood.
13) Urea Cycle
14) Plasma Proteins and their functions
15) Glycogen Storage Disorders

WRITE BRIEFLY ON: 5x2=10

16) Hormones Involved in the regulation of Blood Glucose
17) Essential Amino acids
18) Differences Between DNA and RNA
19) Metabolic acidosis
20) Factors Influencing Iron Absorption

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B.D.S. DEGREE EXAMINATION – DECEMBER, 2012
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(NR & OR)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) What are the pathways of coagulation blood? Explain intrinsic pathway. Name a laboratory anti coagulant. 9

WRITE SHORT NOTES ON: 4x4=16

2) Stages of Spermatogenesis
3) Actions of Thyroxine
4) Composition of Pancreatic Juice
5) Errors of Refraction

WRITE BRIEFLY ON: 5x2=10

6) Types of muscles
7) Types of Neurons
8) Ovarian Hormones
9) Forms in which CO_2 is transported
10) Two family planning methods

PART-B - BIOCHEMISTRY(35 MARKS)

11) Enumerate the sources, daily requirement and deficiency manifestations of Vitamin D. Explain its functions. 1+2+3+3=9

WRITE SHORT NOTES ON: 4x4=16

12) Define gluconeogenesis. Name the key enzymes and mention the significance of this pathway for the skeletal muscle.
13) Protein Energy Malnutrition
14) Structure and function of any two homopolysaccharides
15) Any four functions of Calcium.

WRITE BRIEFLY ON: 5x2=10

16) Any two functions of phospholipids
17) Prostacyclin
18) What is calorific value? Mention the calorific values of carbohydrates and fats.
19) Functions of Vitamin K
20) Give the normal levels of blood cholesterol and blood urea.

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B.D.S. DEGREE EXAMINATION – JUNE, 2013
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(NR & OR)

Time : 3 Hours **Max. Marks : 70**

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Explain the various phases of gastric secretion. Describe the nervous and hormonal regulation of gastric secretion. 9

WRITE SHORT NOTES ON: 4x4=16

2) Testosterone
3) Functions of middle ear
4) Non-Respiratory functions of lung
5) Homeostasis

WRITE BRIEFLY ON: 5x2=10

6) Functions of skin
7) Muscle tone
8) Define stroke volume and cardiac output
9) Functions of liver
10) Mastication

PART-B - BIOCHEMISTRY(35 MARKS)

11) Outline the steps of urea cycle. 9

WRITE SHORT NOTES ON: 4x4=16

12) Classify lipids
13) Oxidative Phosphorylation
14) Mucopolysaccharides
15) Vitamin C

WRITE BRIEFLY ON: 5x2=10

16) Functions of Albumin
17) Metabolic acidosis
18) Transcription.
19) Role of fibre in the diet
20) Normal values of fasting blood glucose and serum cholesterol

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DR. NTR UNIVERSITY OF HEALTH SCIENCES::AP::VIJAYAWADA-520 008

B.D.S. DEGREE EXAMINATION – JUNE/JULY, 2015

FIRST BDS EXAMINATION

GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

(NR & OR)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.

Answer all questions.

Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) What is Blood? What are the functions of Blood? Outline stages of Erythropoiesis. *2+3+4=9*

WRITE SHORT NOTES ON: *4x4=16*

2) Chemical Regulation of Respiration
3) Actions of Cortisol
4) E.C.G. and its waves and causes
5) List the different types of Hypoxia. Explain any one of them.

WRITE BRIEFLY ON: *5x2=10*

6) Packed Cell Volume
7) Two family planning methods
8) Name the phases of Gastric Secretion
9) Define cardiac output and Blood Pressure
10) Two functions of Liver

PART-B - BIOCHEMISTRY(35 MARKS)

11) How provitamin D is converted to its active form? Give the biochemical role and deficiency manifestations of Vitamin D. *3+3+3=9*

WRITE SHORT NOTES ON: *4x4=16*

12) Write the components of electron transport chain. Indicate the sites of ATP formation during electron transport.
13) Enumerate the functions of Albumin. Mention the causes of hypoalbuminemia.
14) Name the derivatives of cholesterol. Give the biomedical importance of three derivatives of cholesterol.
15) What are isoenzymes? Give two examples and mention their clinical significance.

WRITE BRIEFLY ON: *5x2=10*

16) What are essential amino acids? Name them
17) Heparin
18) What is renal glycosuria?
19) Name two competitive inhibitors of enzyme
20) Mention the conditions arising due to the deficiency and excess of Fluoride in the body

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B.D.S. DEGREE EXAMINATION – JUNE, 2011
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(NR & OR)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Explain Intrinsic and Extrinsic mechanism of blood Clotting. 9

WRITE SHORT NOTES ON: 4x4=16

2) Functions of Liver.
3) Composition and Functions of Saliva.
4) Draw a labeled diagram of "Neuro-Muscular junction".
5) The Chloride-shift mechanism.

WRITE BRIEFLY ON: 5x2=10

6) Goitre
7) Ovulation
8) Erythropoietin
9) Myopia
10) Functions of skin

PART-B - BIOCHEMISTRY(35 MARKS)

11) What are the sources, requirement, biochemical functions and deficiency manifestations of Vitamin D. 9

WRITE SHORT NOTES ON: 4x4=16

12) Competitive inhibition
13) Structure of Deoxyribonucleic acid (DNA)
14) Functions and deficiency symptoms of Vitamin C
15) Iron deficiency anaemia.

WRITE BRIEFLY ON: 5x2=10

16) Basal metabolic rate (BMR)
17) Blood buffer
18) Tests for urinary bile salts and bile pigments.
19) Beriberi
20) What are the normal values of
(a) Sodium (b) Potassium
(c) Chloride (d) Bicarbonate
in plasma

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B.D.S. DEGREE EXAMINATION – DECEMBER, 2010/JANUARY, 2011

FIRST BDS EXAMINATION

GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

(*NR & OR*)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.

Answer all questions.

Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Define blood pressure. Explain the short term mechanisms of regulation of blood pressure. 9

WRITE SHORT NOTES ON: 4x4=16

2) Explain the role of peripheral chemoreceptors in regulation of respiration.
3) Explain the stages of spermatogenesis. List the factors regulating it.
4) Referred pain.
5) Name the phases of deglutition. Explain second phase of deglutition.

WRITE BRIEFLY ON: 5x2=10

6) Bohr's effect
7) Immunoglobulin
8) Glomerular filtration rate
9) Haemophilia
10) Sarcomere

PART-B - BIOCHEMISTRY(35 MARKS)

11) Describe Hexose-monophosphate shunt pathway and its biological significance. 9

WRITE SHORT NOTES ON: 4x4=16

12) Diagnostic importance of enzymes
13) Absorption, transport and storage of Iron
14) Jaundice
15) Vitamin D deficiency disorders

WRITE BRIEFLY ON: 5x2=10

16) Electrophoretic pattern of plasma proteins
17) Ketosis
18) Purine salvage pathway
19) Role of kidney in regulation of blood pH
20) Replication of DNA

B.D.S. DEGREE EXAMINATION – FEBRRUARY, 2008 401

FIRST BDS EXAMINATION

HUMAN PHYSIO .OGY AND BIOCHEMISTRY

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part 'A' should not be answered in Part 'B' and vice versa. Otherwise they will not be valued.

Answer all questions.

PART – A (PHYSIOLOGY) – 35 MARKS)

1. What sensations arise from the skin? How are they carried to the brain? 9

WRITE SHORT NOTES ON: 4x4=16

2. Aldosterone
3. Colour blindness
4. Narmoblast
5. Rh. Factor

WRITE BRIEFLY ON: 5x2=10

6. Movements of Small Intestines
7. Pacemaker of the heart
8. Taste buds
9. Artificial breathing
10. Dehydration shock

PART – B (BIOCHEMISTRY) -35 MARKS)

11. Mention the liver function tests. Write in detail the van den Bergh test and its importance 9

WRITE SHORT NOTES ON: 4x4=16

12. Role of kidney in regulating the pH of blood.
13. Galactosemia
14. Define coenzyme. Classify th m with suitable examples.
15. Fate of glucose-6-phosphate.

WRITE BRIEFLY ON: 5x2=10

16. Oxidative deamination
17. Prostacycline
18. Important compounds derived from cholesterol
19. Essential amino acids
20. Give normal levels of the following:
    i) Blood glucose
    ii) Blood urea

B.D.S. DEGREE EXAMINATION – JANUARY, 2010
FIRST BDS EXAMINATION
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY
(New Regulations)

Time : 3 Hours **Max. Marks : 70**

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.
Answer all questions.
Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) **Name the respiratory centers. Explain the neural regulation of respiration.** 9

4x4=16

WRITE SHORT NOTES ON:

2) **Explain the reabsorption of water in renal tubules.**
3) **Functions of liver**
4) **Define cardiac output. Explain any one method of measuring it.**
5) **Explain the mechanism of secretion of hydrochloric acid in the stomach.**

5x2=10

WRITE BRIEFLY ON:

6) **P C V**
7) **Landstiner's Law**
8) **Taste bud**
9) **Haemophilia**
10) **Sarcomere**

PART-B - BIOCHEMISTRY(35 MARKS)

11) **What are the biochemical basis of various types of Jaundice. How will you distinguish different types of jaundice using biochemical tests for urine and blood?** 9

4x4=16

WRITE SHORT NOTES ON:

12) **Name the essential fatty acids and their importance.**
13) **Calcium homeostasis**
14) **Isoenzymes and their clinical significance.**
15) **Structures of protein.**

5x2=10

WRITE BRIEFLY ON:

16) **Biological functions of Vitamin C**
17) **Structure of t-RNA**
18) **Benedicts test**
19) **Metabolic alkalosis**
20) **Ketone bodies**

B.D.S. DEGREE EXAMINATION – JUNE, 2008 401

FIRST BDS EXAMINATION

HUMAN PHYSIOLOGY AND BIOCHEMISTRY

(OLD REGULATIONS)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.

Answer all questions.

PART – A (PHYSIOLOGY) – 35 MARKS)

1. Enumerate the events of cardiac cycle. Describe the pressure changes in the left ventricle of the heart. 9

WRITE SHORT NOTES ON: 4x4=16

2. Anticoagulants.
3. Gastrin.
4. Oral contraceptives.
5. Myopia.

WRITE BRIEFLY ON: 5x2=10

6. Vital capacity
7. Heat loss mechanism in the body
8. Functions of Bile
9. Micturition reflex
10. Brown sequard syndrome

PART – B (BIOCHEMISTRY) -35 MARKS)

11. What is urea? Enumerate the steps of urea cycle and mention its significance. 9

WRITE SHORT NOTES ON: 4x4=16

12. Lipoproteins and their functions.
13. Name the components of electron transport chain mentioning the site of ATP generation and its inhibitors.
14. Role of carnitine in B-oxidation.
15. Glycogen storage disorders

WRITE BRIEFLY ON: 5x2=10

16. Define gluconeogenesis and name the key enzymes of gluconeogenesis.
17. Metabolic acidosis.
18. Structure of animal starch.
19. Phenylketonuria
20. Give normal levels of the followings:
    i) Serum amylase.
    ii) Serum inorganic phosphorus.

B.D.S. DEGREE EXAMINATION – JANUARY, 2010
FIRST BDS EXAMINATION
HUMAN PHYSIOLOGY AND BIOCHEMISTRY
(Old Regulations)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.

Answer all questions. Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Mention the names of the clotting factors in proper order. Explain the intrinsic mechanism of blood clotting. 9

WRITE SHORT NOTES ON: 4x4=16

2) Give the composition of pancreatic juice
3) List the functions of middle ear. Explain any one of them.
4) List the different types of Hypoxia and explain any one of them.
5) Draw a labelled diagram of stretch reflex arc and explain the function of stretch reflex arc.

WRITE BRIEFLY ON: 5x2=10

6) Haldane's effect
7) Bile salts
8) Saltatory conduction
9) Corpus luteum
10) Erythroblastosis Foetalis

PART-B - BIOCHEMISTRY(35 MARKS)

11) What are enzymes? Give an account of the effect of substrate concentration, pH and temperature on enzyme activity. 9

WRITE SHORT NOTES ON: 4x4=16

12) Digestion and absorption of carbohydrates
13) Classification of lipids
14) Functions of Proteins in body
15) Harmones that regulate blood sugar

WRITE BRIEFLY ON: 5x2=10

16) Name the purine bases
17) Heparin
18) Scurvy
19) Name the buffer systems of the body
20) Maple Syrup Disease

B.D.S. DEGREE EXAMINATION – JANUARY, 2009
FIRST BDS EXAMINATION
HUMAN PHYSIOLOGY AND BIOCHEMISTRY
(Old Regulations)

Time : 3 Hours Max. Marks : 70

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.

Answer all questions.

PART – A (PHYSIOLOGY) – 35 MARKS)

1. What are the phases of Gastric Secretion? Write the composition? Explain how gastric secretion is regulated. 9

WRITE SHORT NOTES ON: 4x4=16

2. Name the transport mechanisms in cell membrane.
3. Actions of Insulin.
4. Neuro-muscular transmission.
5. Lung volumes and capacities.

WRITE BRIEFLY ON: 5x2=10

6. Types of Muscles.
7. Two actions of Testosterone.
8. Two Errors of Refraction.
9. Anticoagulants.
10. Write values for M.C.H., M.C.V. MCHC.

PART – B (BIOCHEMISTRY) -35 MARKS)

11. Write the dietary sources, daily requirements, functions of Calcium. How serum calcium level is regulated? 9

WRITE SHORT NOTES ON: 4x4=16

12. Metabolic changes in diabetes mellitus.
13. Abnormal haemoglobins.
14. Functional and nutritional classification of proteins.
15. Competitive enzyme inhibition and its importance in medicine.

WRITE BRIEFLY ON: 5x2=10

16. Give coenzyme form and deficiency manifestations of Vitamin B 12.
17. Name the stages of transcription.
18. Biochemical Functions of Copper.
19. ~~Haemolytic anaemia~~ HEMOGLOBINOPATHIES
20. Give two examples of substrate level phosphorylation.

B.D.S. DEGREE EXAMINATION – JUNE, 2010

FIRST BDS EXAMINATION

GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

(New Regulations)

Time : 3 Hours **Max. Marks : 70**

Note: Answer Part A & B in separate answer books. Questions in Part'A' should not be answered in Part'B' and vice versa. Otherwise they will not be valued.

Answer all questions.

Draw neat labeled diagrams wherever necessary.

PART-A-PHYSIOLOGY (35 MARKS)

1) Enumerate the hormones of Anterior pituitary. Describe the functions of any one of them. 9

WRITE SHORT NOTES ON: 4x4=16

2) Plasma proteins
3) Dead space
4) Astigmatism
5) Artificial respiration

WRITE BRIEFLY ON: 5x2=10

6) Functions of haemoglobin
7) Gastric juice
8) Cerebrospinal fluid
9) Glomerular filtration rate
10) Dehydration shock

PART-B - BIOCHEMISTRY(35 MARKS)

11) What is urea? Discuss the steps of urea synthesis and its significance. 9

WRITE SHORT NOTES ON: 4x4=16

12) Role of hormones in regulation of serum calcium level
13) Balanced diet
14) Synthesis of thyroid hormone
15) Synthesis and uses of glucuronic acid

WRITE BRIEFLY ON: 5x2=10

16) What is transmethylation? Give two examples
17) Substrate level phosphorylation
18) Give two examples of detoxification by conjugation
19) Enzyme marker in myocardial infarction
20) Difference between DNA and RNA.

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