

Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination – July 2019

GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

LONG ESSAY

PART A PHYSIOLOGY 35 MARKS

1. Define cardiac output. Give its normal resting value. How is it regulated?

II. WRITE SHORT NOTES ON: 4×4=16 M

2. Rh blood group and its importance.

3. Oxygen dissociation curve.

4. Endothelial changes during menstrual cycle.

5. Acidification of urine.

III. WRITE BRIEF NOTES ON: 5×2=10M

6. Functions of bile.

7. Three hormones regulating blood calcium level.

8. Draw a neat labelled diagram of taste pathway.

9. Reflex arc.

10. Mitochondria.

PART B BIOCHEMISTRY 35 MARKS

IV. ANSWER THE FOLLOWING QUESTION

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

V. WRITE SHORT NOTES ON: 4×4=16

12. Metabolic changes in Diabetes mellitus.

13. Sources, biochemical functions and deficiency symptoms of thiamine.

14. Significance of citric acid cycle.

15. Proteins Energy Malnutrition.

VI. WRITE BRIEF NOTES ON: (5×2=10M)

16. What are the normal levels of the following.

a. Serum potassium

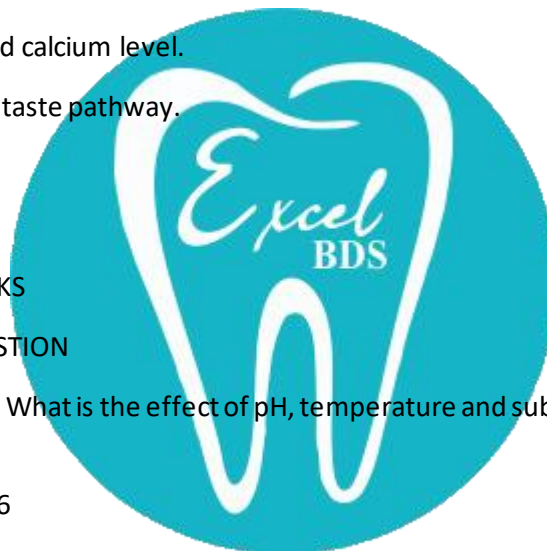
b. Serum cholesterol.

17. Heparin

18. Mention the conditions that arise due to the deficiency and excess of Fluoride in the body.

19. Salient features of the genetic code.

20. What is calorific value? Mention the calorific values of the carbohydrates and fats.



Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination - JANUARY 2018
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

PHYSIOLOGY (35 MARKS)

LONG ESSAY

- Define cardiac output. Explain the factors influencing cardiac output

SHORT NOTES ON:

- Secondary sexual characters in female
- Nerve action potential
- Control of gastric secretion
- Micturition reflex

WRITE BRIEFLY ON:

- Hypermetropia
- Calcitonin
- Hypoxia
- Functions of hypothalamus
- Acromegaly



PART B

BIOCHEMISTRY (35 MARKS)

LONG ESSAY

- Write the dietary sources, daily requirements, functions of calcium and regulation of serum calcium

SHORT NOTES ON:

- Metabolic changes in diabetes mellitus
- Abnormal haemoglobins
- Immunoglobulins
- Competitive enzyme inhibition and its importance in medicine

WRITE BRIEFLY ON:

- Give the coenzyme form and deficiency manifestations of Vitamin B12
- Different types of RNAs and their functions
- Biochemical functions of copper
- Enzymes of diagnostic importance and liver disease

Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination - JUNE/JULY 2017
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

PHYSIOLOGY (35 MARKS)

LONG ESSAY

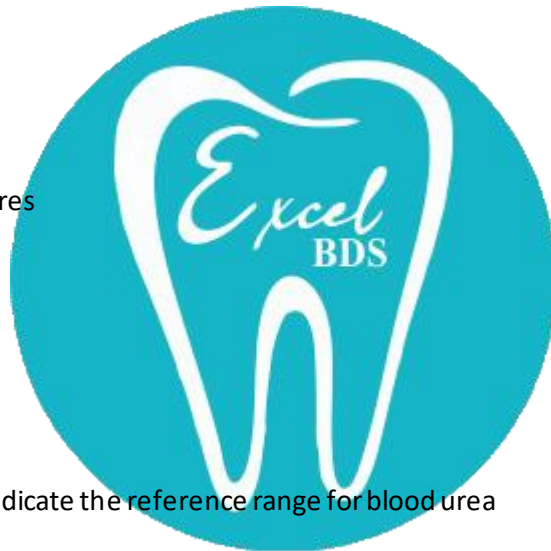
- Describe nervous and chemical regulation of respiration

SHORT NOTES ON:-

- Short term blood pressure regulating mechanisms
- Composition and functions of Gastric juice
- Visual Pathway
- Cushing's syndrome

WRITE BRIEFLY ON:-

- Taste buds
- Functions of Lymph
- Rh blood group
- Female contraceptives
- Saltatory conduction in nerve fibres



PART B

BIOCHEMISTRY (35 MARKS)

LONG ESSAY

- Outline the steps of urea cycle. Indicate the reference range for blood urea

SHORT NOTES ON:-

- Digestion of carbohydrates
- Function and Nutritional classification of Proteins
- Functions of Calcium
- Ketosis

WRITE BRIEFLY ON:-

- Glycogen
- Functions of plasma albumin
- Hormones in blood glucose regulation
- Source and deficiency manifestations of Vitamin C
- Function and deficiency of Iodine

Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination – Jan 2017
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

PART A

PHYSIOLOGY (35 MARKS)

LONG ESSAY

- Explain stages of Erythropoiesis. Add a note on factors required for erythropoiesis

SHORT NOTES ON:

- Progesterone
- Properties of smooth muscle
- Functions of bile
- Factors influencing glomerular filtration rate

WRITE BRIEFLY ON:-

- Myopia
- Forms of oxygen transport
- Functions of CSF pathway for the oxidation of glucose in the body
- Insulin
- Components of a reflex arc

PART B

BIOCHEMISTRY (35 MARKS)

LONG ESSAY

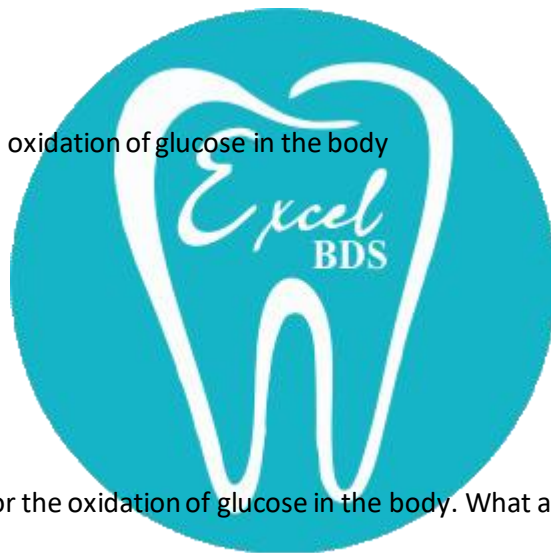
- Outline the Glycolytic pathway for the oxidation of glucose in the body. What are its energetics

SHORT NOTES ON:-

- Biochemical functions of Vitamin A
- Competitive inhibition
- Beta oxidation of fatty acids
- Characteristics of genetic code

WRITE BRIEFLY ON:-

- Significance of HMP pathway
- Essential Amino acids
- Biochemically important products from cholesterol
- Factors regulating plasma calcium
- Basal metabolic rate and its importance



Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination - JUNE/JULY 2016
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

PHYSIOLOGY (35 MARKS)

LONG ESSAY

- Define cardiac cycle. Enumerate its different phases. Explain the left ventricular pressure changes during a cardiac cycle with the help of a graph

SHORT NOTES ON:-

- Testosterone
- Taste buds
- Functions of large intestine
- Functions of proximal convoluted tubule

WRITE BRIEFLY ON:-

- Presbyopia
- Forms of carbon dioxide transport
- Functions of cerebellum
- Cortisol
- Cretinism

PART B

BIOCHEMISTRY (35 MARKS)

LONG ESSAY

- Write the dietary sources, daily requirements and functions of thiamin

SHORT NOTES ON:-

- Anaphylaxis
- Sources, biochemical functions and deficiency symptoms of thiamine
- Gluconeogenesis
- Ketogenesis

WRITE BRIEFLY ON:-

- Name the stages of transcription
- Protein Calorie
- Malnutrition
- Dietary Fibre
- Serum enzymes as liver function tests
- Functions of Vitamin C



Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination - JANUARY 2016
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

LONG ESSAY

- Give the composition of Saliva and explain the functions of Saliva

SHORT NOTES ON:-

- Sino aortic reflex
- Composition and functions of Gastric Juice
- Plasma proteins
- Oxygen Hemoglobin dissociation Curve

WRITE BRIEFLY ON:-

- Dwarfism
- Puberty
- Rhesus Factor
- Hypermetropia
- Stages of spermatogenesis

PART B

BIOCHEMISTRY(35 MARKS)

LONG ESSAY

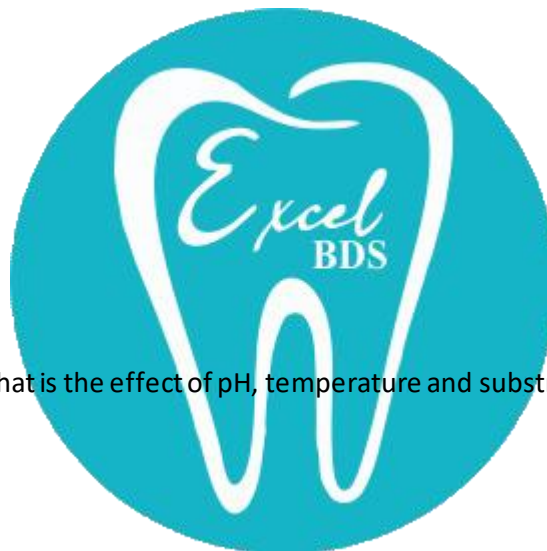
- How do you classify enzymes. What is the effect of pH, temperature and substrate concentration on enzyme activity

SHORT NOTES ON:-

- Plasma Lipoproteins
- Metabolic changes in Diabetes Mellitus
- Explain the biochemical role and deficiency manifestations of vitamin C
- Glycolysis

WRITE BRIEFLY ON:-

- Essential fatty acids
- Gout
- Transamination
- Factors affecting Calcium absorption
- What are the normal levels of the following:- a) Serum Potassium b) Serum cholesterol



Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination - JUNE/JULY 2013
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

PHYSIOLOGY(35 MARKS)

LONG ESSAY

- What is Blood. What are the functions of Blood. Outline stages of Erythropoiesis

SHORT NOTES ON:

- Chemical Regulation of Respiration
- Actions of Cortisol
- ECG and its waves and causes
- List the different types of Hypoxia. Explain any one of them

WRITE BRIEFLY ON:-

- Packed Cell Volume
- Two family planning methods
- Name the phases of Gastric Secretion
- Define cardiac output and Blood pressure
- Two functions of Liver

PART B

BIOCHEMISTRY(35 MARKS)

LONG ESSAY

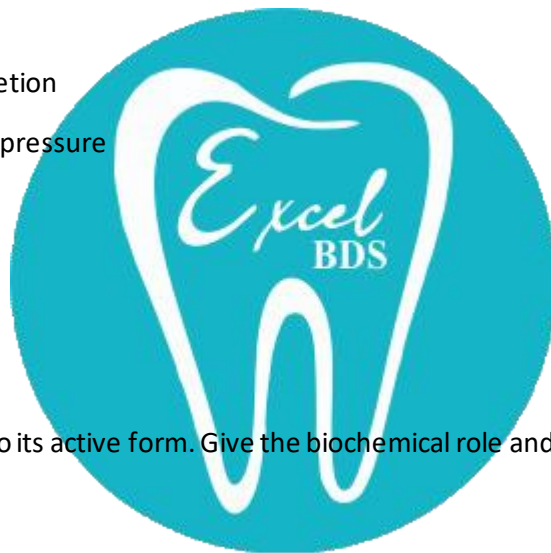
- How provitamin D is converted to its active form. Give the biochemical role and deficiency manifestations of Vitamin D

SHORT NOTES ON:

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

WRITE BRIEFLY ON:-

- What are essential amino acids. Name them
- Heparin
- What is renal glycosuria
- Name two competitive inhibitors of enzyme
- Mention the conditions arising due to the deficiency and excess of Fluoride in the body



Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination - JANUARY 2015
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

PHYSIOLOGY (35 MARK)

LONG ESSAY

- Describe the nervous regulation of respiration. Add a note on Herreng-Breuers reflex

SHORT NOTES:-

- Physiological changes in pregnancy
- Visual pathway
- Functions of lymph
- Functions of blood

WRITE BRIEFLY ON:

- Taste buds
- Neurons
- Three hormones Regulating plasma calcium
- Functions of saliva
- Peristalsis

PART B

BIOCHEMISTRY (35 MARKS)

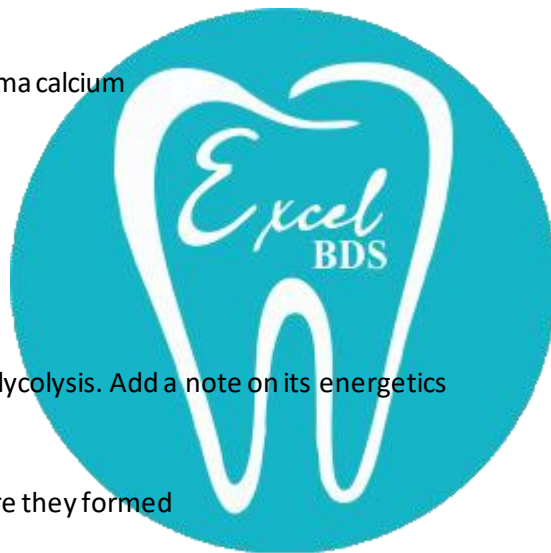
- Outline the pathway of aerobic glycolysis. Add a note on its energetics

SHORT NOTES ON:-

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

WRITE BRIEFLY ON:

- Functions of albumin
- Mention the normal blood levels of:- Calcium, cholesterol, urea and creatinine
- Function and deficiency of iodine
- Essential fatty acids
- Name any two disaccharides and give their composition



Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination - JUNE 2014
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

PHYSIOLOGY (35 MARKS)

LONG ESSAY

- Mention the names of the clotting factors in proper order. Explain the intrinsic mechanism of blood clotting

SHORT NOTES ON:-

- Chemoreceptors
- Regulation of gastric juice secretion
- Actions of growth hormone
- Functions of hypothalamus

WRITE BRIEFLY ON:-

- Fetoplacental unit
- Stretch reflex
- All or None law
- Taste pathway
- Male contraceptive methods

PART B

*BIOCHEMISTRY(35 MARKS) *

LONG ESSAY

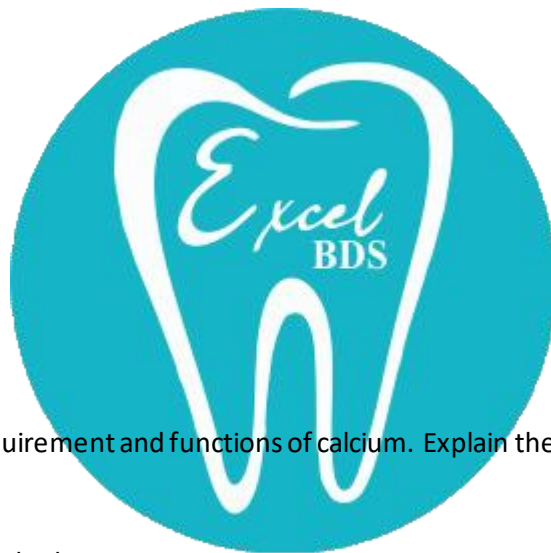
- Enumerate the sources, daily requirement and functions of calcium. Explain the regulation of serum calcium level

SHORT NOTES ON:-

- Digestion and absorption of Carbohydrates
- Significance of citric acid cycle
- Salient features of double helical structure of DNA
- Influence of any four factors on enzyme activity

WRITE BRIEFLY ON:-

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



Kaloji Narayana Rao University of Health Sciences Warangal, Telangana

BDS 1st Year Examination - JANUARY 2014
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

PHYSIOLOGY

LONG ESSAY

- Define blood pressure the regulation of blood Pressure

SHORT NOTES ON:-

- Estrogen
- Properties of Cardiac muscle
- Composition and functions of saliva
- Functions of kidney

WRITE BRIEFLY ON:-

- Functions of rods and cones
- Mass reflex
- Secretions of anterior pituitary
- Composition of pancreas
- Deglutition

PART B

BIOCHEMISTRY(35 MARKS)

LONG ESSAY

- Outline the steps of Glycolysis

SHORT NOTES ON:-

- Classify enzymes
- Electron transport chain
- Vitamin A
- Ketogenesis

WRITE BRIEFLY ON:-

- Basal Metabolic Rate (BMR)
- Rickets
- Biologically important peptides
- Essential fatty acids
- Normal values of blood urea and serum Creatinine



Excel BDS

We Take Daily Discussion over a Whatsapp based group

Motivating students for Distinction and NEETMDS from BDS 1st, 2nd 3rdyr Itself.



To Join Our Whatsapp Group Click Here

