

10/5/10

Ist Yr. B.D.S (2009 Batch)
IInd Internal Assessment Examination

- Note: i) Attempt all questions
ii) Draw neat & well labeled diagrams wherever necessary
iii) Use separate sheets for Part A & Part B

Max Marks: 25

Time: 3 hours

Part A
Physiology

- Q.1. Discuss the cardio-respiratory changes during moderate exercise. 6x1=6
- Q.2. Give normal value / range: 0.5x4=2
- a) Alevator Ventilation – Perfusion Ratio in Lungs.
 - b) Systematic Arterial Blood Pressure in young adults.
 - c) P-R Intervals
 - d) Ejection Fraction.
- Q.3. Compare & Contrast: 2.5x4=10
- a) Graded potential and Action Potential
 - b) Adult and Foetal Haemoglobin
 - c) Tremors in Parkinsonism and cerebular lesion.
 - d) Upper motor Neuron and Lower Motor Neuron Lesion.
- Q.4. Write briefly on: 2+2+3=7
- a) Mechanism of H cl secretion.
 - b) Pancreatic enzymes and their actions.
 - c) Pathway for Pain sensation.

Max Marks: 35

Part – B
Biochemistry

- Q.1. Case Study
A 50 year old man was brought to the OPD of Surya Hospital with swelling and joint pain. Blood report showed an uric acid level of 12 mg%. The case was diagnosed and treated. 5x1=5
- a) What is your diagnosis?
 - b) What is the name & site of deposit of crystals?
 - c) In treatment which enzyme is inhibited and by which drug?
 - d) What are uricosuric drugs?
 - e) What is the dietary advice you suggest?
- Q.2. What are enzymes? Classify them. Also explain the terms substrate, co enzyme. Prosthetic group, inhibitor and activator of enzymes. What are diagnostic enzymes? 5

- Q.3 Describe metabolism of Glycogen and it's storage diseases. 5
- Q.4. Write the sources, functions & deficiency symptoms of Vitamin A. Discuss Wald's Visual Cycle. 5
- Q.5. Differentiate between any four: 1.5x4=6
- a) IDDM & NIDDM
 - b) Competitive & non-Competitive inhibition
 - c) Conjugate & unconjugate bilirubin
 - d) IgM & IgA
 - e) Coenzymes & Isoenzymes
- Q.6 Write short notes on any three: 3x3=9
- a) Hormonal Regulation of Blood Glucose
 - b) Factors affecting enzyme activity
 - c) Sites of ATP generation in ETC & inhibitors of various sites.
 - d) Reaction steps of Glycolysis which prevent conversion of Pyruvate of Glucose.
 - e) Pellagra in a deficiency disease.
 - f) Fluorosis

1st YR. B.D.S (2009 Batch)
FINAL INTERNAL ASSESSMENT EXAMINATION (SENT UP)
Subject: - Physiology & Biochemistry

Date: 30/08/10

Time: 10 min

MULTIPLE CHOICE QUESTIONS (1MARKS EACH QUSTION)

PART –A (Physiology)

- Q1. First heart sound is because of
a) Closure of A- V valves
b) Closure of Semilunar Valves
c) Flow of blood from Atria to Ventricles
d) Flow of blood from Ventricle to Pulmonary Artery.
- Q2. Normal Glomerular Filtration Rate is ;
a) 50 ml/ min
b) 75ml/min
c) 100 ml/min
d) 125 ml/min
- Q3. Extrapyramidal tract includes all except.
a) Rubrospinal tract
b) Tectospinal tract
c) Corticospinal tract
d) Medial longitudinal fasciculus.
- Q4. The function of ear ossicles is to -
a) Increase the tension of Tympanic Membrane
b) Pull the foot plate of stapes out of oval window
c) Magnify intensity of sound by 1.2 to 1.3 times..
d) All of the above
- Q5. Normal Serum calcium level is:-
a) 4-6 mg/dl
b) 6-8 mg /dl
c) 9-11 mg /dl
d) 14-16 mg /dl

PART-B (Biochemistry)

- Q1. In Hypoglycemia, blood sugar level is:
a) Less than 50 mg /dl
b) less than 100 mg /dl
c) More than 50 mg /dl
d) More than 126 mg/dl
- Q2. Which of the following Lipoproteins transfers dietary lipids to the whole body :
a) L.D.L
b) Chylomicrons
c) H.D.L
d) VLDL
- Q3. The Following vitamin aids in I – Carbon transfer reaction.
a) Folic Acid
b) Pyridoxine
c) Panthothenic Acid
d) Niacin
- Q4. The following is a feature of competitive Inhibitions in Line Weaver Burk Plott.
a) V_{max} Unchanged , K_m Increases
b) V_{max} increase, K_m unchanged
c) V_{max} Decreases, K_m Increase
d) Both V_{max} & K_m Decreases
- Q5. Urea is Synthesized in :
a) Liver
b) Kidney
c) Intestines
d) Bones

1st YR. B.D.S (2009 Batch)

FINAL INTERNAL ASSESSMENT EXAMINATION (SENT UP)

Subject - Physiology & Biochemistry

Date: 30/08/10

Time: 3 hours

Max M. 70

Note:

1. Attempt all the questions of Part - A & Part -B in a sequence.
2. Draw neat and well labeled diagrams wherever necessary.
3. Use separate answer sheets for part A & part B

PART -A (Physiology)

Marks: 30

Q1. Define Arterial Blood Pressure .Discuss the regulation of Blood Pressure.

(9)

Q2. Write Briefly on : -

(4X3=12)

a) Functions of Liver.

b) O₂ transport in Blood.

C) Hypothyroidism in children and adult.

Q3. Write Short notes on : -

(3X3=9)

a) Secondary Active Transport

b) Erythropoiesis

C) Smooth Muscle.

PART-B (Biochemistry)

Marks: 30

Q1. Classify carbohydrates, what is Glycogen. How is it Synthesized & broken down .Describe what is the role of Glycogen in our body.

(8)

Q2. Write briefly on -

(4X3 =12)

a) Beta Oxidation of C- 16 Fatty Acid (also calculates the ATP's generated).

b) Classify Enzymes Inhibitors. Discuss differences between competitive & non competitive inhibitors.

c) Discuss Pellegra & Beri- Beri.

Q3. Answer any three.

(3X3=9)

a) Short note on Post Translational modification.

b) Oxazali Fragments.

c) Calcium & its role in metabolism.

d) Significance of HMP – shunt Pathway.