

Printing Page(s) : 2

Paper Code : BDS-102

Roll No.

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**BDS (1st YEAR) SUPPLEMENTARY EXAMINATION,
(DECEMBER. 2014)
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY**

Time : 3 Hours]

[Max. Marks : 70

Note: The question paper is divided into two Sections A & B. Attempt all questions as per instructions. Draw diagram wherever necessary.

SECTION-A (PHYSIOLOGY)

1. Define hemostasis. Give schematic diagram of clotting mechanism. [6]
2. Enumerate the Anterior pituitary hormones. Write in brief the functions of growth hormone. [6]
3. Differentiate between : [5x2=10]
 - (a) Active and Passive Immunity.
 - (b) Properties of skeletal and cardiac muscle.
4. Write short notes on : [3x3=9]
 - (a) Function of Liver.
 - (b) Chemical regulation of respiration.
 - (c) Short term regulation of blood pressure
5. Define only (Answer any four) : [1x4=4]
 - (a) Reflex
 - (b) Glomerular filtration rate.
 - (c) Rickets
 - (d) Shock.
 - (e) Menstrual cycle

SECTION-B (Biochemistry)

6. Describe urea cycle and enumerate its clinical conditions [5+3=8]
where blood urea level increases.
7. Classify Vitamins and describe chemistry, biochemical [3+6=9]
functions, daily requirements, sources and deficiency
manifestations of Vitamin 'D'
8. Write short answers on any *three*: [3×3=9]
(a) Phospholipids
(b) Sickle cell anemia.
(c) Watson & Crick's model of DNA
(d) Diagnostic & therapeutic applications of enzymes.
9. Write short answer on any *three*: [3×3=9]
(a) Diabetes mellitus
(b) Jaundice
(c) Ketone bodies
(d) Electron transport chain.

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BDS (1st YEAR) EXAMINATION, AUGUST 2014
GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY

Time : 3 Hours]

[Max. Marks : 70

Note: The question paper is divided into two Sections A & B. Attempt all questions as per instructions. Draw diagram wherever necessary:

SECTION-A (PHYSIOLOGY)

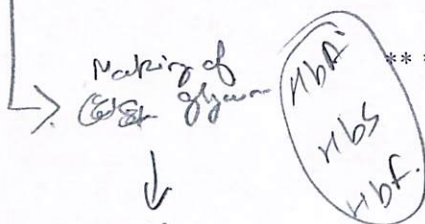
1. Define cardiac output. Write briefly about the various factors affecting cardiac output. [6]
2. Enumerate the properties of skeletal muscle. With the help of flow chart, give the sequence of events in neuromuscular transmission of impulse. [6]
3. Differentiate between : [5x2=10]
 - (a) Hyper and Hypothyroidism
 - (b) Cortical and Juxtamedullary nephrons
4. Write short notes on : [3x3=9]
 - (a) Surfactant
 - (b) Functions of Saliva
 - (c) Properties of receptors
5. Define only : [1x4=4]
 - (a) Anemia
 - (b) Menstrual Cycle
 - (c) Hypoxia
 - (d) Vital Capacity

SECTION-B (Biochemistry)

6. What are the plasma proteins? Write important functions [2+5=7]
of plasma proteins.
7. What is RNA? Write a note on its different types and draw [1+3+3=7]
the structure of t-RNA
8. Write short answers on any three: low carb [3×3=9]
 - (a) Fatty liver ~~Alcohol~~ / ~~high lipid intake~~ / ~~cholesterol~~

RNA - AUGC
 - (b) Glycogenesis
 - (c) Metabolic role of Iron
 - (d) Isoenzymes Structurally different

tRNA
Hem. RNA
SRNA
mRNA
9. Write short answer on any three [4×3=12]
 - (a) Fluoride metabolism
 - (b) Mechanism of action of steroid hormones
 - (c) Haemoglobinopathies
 - (d) Heteropolysaccharides
 - (e) Transmethylation reactions



Insulin
 Cortisol
 Adrenaline
 Growth hormone
 Calcitonin

Blood Buffers → Immunity
 Transporters
 Coagulation
 Stability of blood