Total No. of Questions: 6 *Total No. of Printed Pages:3*

Enrollment No.....

Faculty of Science
End Sem Examination May-2024
FS3EL11 Human Physiology

Programme: B.Sc. (Hons.) Branch/Specialisation: Forensic Science

Duration: 3 Hrs. **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

Q.1 i. Glucose is- **1**

(a) Keto Hexose Sugar (b) Aldose Hexose Sugar

(c) Hexose Monosaccharide (d) Furanose Pentose Sugar

ii. A fat molecule has- **1**

(a) 3 glycerol & Fatty acid molecules

(b) 1 glycerol & 3 fatty acid molecule

(c) 3 glycerol & fatty acid Molecule

(d) 1 Glycerol & 1 fatty acid molecule

iii. Deoxyribose & Ribose Sugar are- **1**

(a) Nucleoside

(b) Pentose Mono saccharide

(c) Hexose Monosaccharide

(d) Oligosaccharide

iv. Vitamin H is termed as- **1**

(a) Tocopherol (b) Thamin

(c) Biotin (d) Cyanocobalamin

v. Process for synthesis of blood- **1**

(a) Haematology (b) Blastosis

(c) Haematopoiesis (d) None of these

vi. Which can be called as forensic aspect of blood? **1**

(a) Identification (b) Personalization

(c) Detection (d) All of these

vii. Formation of muscles is called as- **1**
(a) Myopia (b) Meropia
(c) Myogenesis (d) Glycogenesis

viii. When any heavy work is carried out through muscles then it observes Fatigue because of- **1**
(a) HCL (b) Tannic acid
(c) Sulphuric acid (d) Lactic acid

ix. Structure most associated with processing output- **1**
(a) Axon (b) Dendron (c) Myelin (d) All of these

x. Chemical other than euro transmitter secreted at synapse is- **1**
(a) Neuro Peptides (b) Neuromodulators
(c) Epinephrine (d) Ach

Q.2 i. Give two examples of carbohydrate with its structure. **2**
ii. What are essential and Non- essential Amino Acid? Give any three examples of each. **3**
iii. Give the classification for carbohydrates. **5**
OR iv. Define with examples- **5**
(a) Protein (b) Lipid

Q.3 i. Give the names of any four essential & nonessential ammino acid. **2**
ii. Explain in detail with proper diagram- **8**
(a) DNA and its structure
(b) RNA and its structure
OR iii. Write a shot note on any two: **8**
(a) Ammino Acid (b) Nucleic acid
(c) Vitamins

Q.4 i. Write six forensic application of blood. **3**
ii. What is blood? Explain composition and functions of different component of Blood. **7**
OR iii. Write ten differences between WBC's and RBC's. **7**

Q.5 i. Give four examples of voluntary & involuntary muscles. **4**
ii. Explain the function of actin & myosin protein. **6**
OR iii. Describe the mechanism and regulation of muscles contraction. **6**

Q.6 Attempt any two:
i. Explain the structure and function of Nerve 7 Synapse. **5**
ii. What is synaptic transmission? Give its mechanism with proper diagram. **5**
iii. Write a short note on: **5**
(a) Neuro transmitter (b) Neuro inhibitor

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Marking Scheme
FS3EL11 Human Physiology

Q.1	i)	b. Aldose Hexose Sugar	**1**
	ii)	b. 1 glycerol & 3 fatty acid molecule	**1**
	iii)	b. Pentose Mono saccharide	**1**
	iv)	c. Biotin	**1**
	v)	C. Haematopoiesis	**1**
	vi)	d. All of these	**1**
	vii)	c. Myogenesis	**1**
	viii)	d. Lactic acid	**1**
	ix)	d. All of these	**1**
	x)	b. Neuromodulators	**1**
Q.2	i.	Two examples of carbohydrate with its structure	**1 each**
	ii.	Essential and Non- essential Amino Acid (Any 3)	**1 each**
	iii.	Carbohydrates Definition	**2.5**
		Classification	**2.5**
OR	iv.	1. Protein	**2.5**
		2. Lipid	**2.5**
		With examples?	
Q.3	i.	4 essential & nonessential ammino acid	**0.5 each**
	ii.	DNA and its structure	**2**
		RNA and its structure	**2**
		Diagram DNA	**2**
		Diagram RNA	**2**
OR	iii.	Ammino Acid Nucleic acid Vitamins Any (2)	**4 each** **4**
Q.4	i.	6 forensic applications of blood	**0.5 each**
	ii.	What is blood	**3**
		Composition and functions of different component of Blood	**4**
OR	iii.	10 difference between WBC's and RBC's	**5**
		Diagram	**2**
Q.5	i.	4 Examples of Voluntary & Involuntary muscles	**1 each**
	ii.	Function of Actin & Myosin Protein (Any 6)	**1 each**
OR	iii.	Definition Muscles	**2**
		Mechanism and regulation of Muscles contraction	**4**
Q.6			
	i.	Define Nerve Synapse	**2**
		Structure and function of Nerve Synapse	**3**
	ii.	synaptic Transmission	**2.5**
		mechanism with proper diagram	**Each**
	iii.	Neuro Transmitter	**2.5**
		Neuro Inhibitor	**each**

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