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(NEP—2020)

(4th Semester)

HOME SCIENCE (MINOR)

(Physiology)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(SECTION : A—OBJECTIVE)

(Marks : 10)

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. The normal blood pressure in man is

- (a) 130/90 ()
- (b) 120/70 ()
- (c) 120/80 ()
- (d) 120/90 ()

2. Universal recipient has blood group

- (a) A ()
- (b) O ()
- (c) B ()
- (d) AB ()

- 3.** Bile salts are released from the
- (a) pancreas ()
 - (b) intestine ()
 - (c) stomach ()
 - (d) liver ()
- 4.** Carbohydrates digestion starts in the
- (a) oesophagus ()
 - (b) mouth ()
 - (c) stomach ()
 - (d) intestine ()
- 5.** The structural and functional unit of kidney is
- (a) nephron ()
 - (b) ureter ()
 - (c) urethra ()
 - (d) urinary bladder ()
- 6.** The normal rate of respiration in adult is
- (a) 12 breaths/minute ()
 - (b) 13 breaths/minute ()
 - (c) 14 breaths/minute ()
 - (d) 15 breaths/minute ()
- 7.** Where are T-tubules located?
- (a) Nerves ()
 - (b) Muscle ()
 - (c) Kidney cells ()
 - (d) Gonads ()
- 8.** Which one is a well-known neurotransmitter?
- (a) Insulin ()
 - (b) Proline ()
 - (c) Lecithin ()
 - (d) Acetylcholine ()

9. Which is the largest endocrine gland in man?

- (a) Thyroid gland ()
- (b) Adrenal gland ()
- (c) Thymus gland ()
- (d) Pituitary gland ()

10. In 1944, the significance of odour in communication among the animals is reported by

- (a) Carlson ()
- (b) Hediger ()
- (c) Robertson ()
- (d) Prosser ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

Write short notes on *five* of the following, selecting at least *one* from each Unit :

3×5=15

UNIT—I

- 1. Blood transfusion
- 2. Cardiac cycle

UNIT—II

- 3. The role of gastric juice in digestion
- 4. Urine formation

UNIT—III

- 5. Transport of carbon dioxide in blood
- 6. Nerve impulse

UNIT—IV

- 7. Hormones of pancreas
- 8. Differences between hormone and pheromone

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer *five* questions, selecting at least *one* from each Unit :

10×5=50

UNIT—I

1. What do you mean by blood clot? Describe the process involved in coagulation of blood. 3+7=10
2. Write notes on the following : 5+5=10
 - (a) Composition of blood
 - (b) Functions of heart

UNIT—II

3. Explain the digestion and absorption of carbohydrates. 5+5=10
4. Describe with a neat diagram, the structure of kidney. Mention the important functions of kidney. 6+4=10

UNIT—III

5. Explain with a suitable diagram, the mechanisms of respiration. 4+6=10
6. Write notes on the following : 5+5=10
 - (a) Structure of smooth muscles
 - (b) Transmission of nerve impulse through synapse

UNIT—IV

7. Mention various hormones secreted from pituitary and their functions. 10
8. What are pheromones? Mention the types and functions of pheromones. 3+3+4=10

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