

**Avinashilingam Institute for Home Science and Higher Education for Women  
(Deemed to be University), Coimbatore-641 043  
Bachelor's Degree Semester Examination, November 2018  
I Semester**

**Major: Food Science and Nutrition  
Class: I B.Sc.**

**Time: 3 hours  
Max.Marks: 100**

**18BFNC02 Fundamentals of Human Physiology**

**PART A**

**10x1=10**

**Circle the correct answer**

1. The lifespan of WBC ranges from \_\_\_\_\_
  - a. 13 to 20 days.
  - b. 20 to 40 days
  - c. 10 to 20 days
  - d. 40 to 60 days
2. The process of formation of RBC is called as \_\_\_\_\_
  - a. regeneration
  - b. amalgamation
  - c. oxidation
  - d. Erythropoiesis
3. The exchange of gases at tissue level is called \_\_\_\_\_
  - a. peripheral gas exchange
  - b. ventral gas exchange
  - c. diffusion
  - d. absorption
4. Cells in our body combine glucose and \_\_\_\_\_ to make ATP and CO<sub>2</sub>.
  - a. Argon
  - b. nitrogen
  - c. oxygen
  - d. neon
5. The function of insulin is to regulate \_\_\_\_\_
  - a. blood sugar
  - b. blood lipids
  - c. blood creatinine
  - d. blood urea
6. The functional unit of the kidney is \_\_\_\_\_
  - a. Neuron
  - b. nephron
  - c. ohms
  - d. calorie
7. \_\_\_\_\_ is the "master gland" of the body.
  - a. Adrenal
  - b. pituitary
  - c. para-thyroid
  - d. thyroid
8. Steroid hormones are produced by \_\_\_\_\_ glands
  - a. Para-thyroid
  - b. pituitary
  - c. adrenal
  - d. thyroid
9. \_\_\_\_\_ hormone is responsible for milk letdown.
  - a. insulin
  - b. steroid
  - c. oxytocin
  - d. thyroid
10. Menstrual cycle and period are controlled by hormones like estrogen
  - a. insulin
  - b. steroid
  - c. oxytocin
  - d. progesterone

**Part B**

**Answer the following**

**5 x 6 = 30**

**Answer should not exceed 400 words or two pages**

11.a. Explain the functions of plasma proteins.

Or

11.b. Discuss about blood coagulation.

12.a. Illustrate the structure of human heart and label the parts.

Or

12.b. Sketch the properties of cardiac muscle.

13.a. Explain the structure of nephron and list out its functions.

Or

13.b. Discuss the functions and absorption of carbohydrates.

14.a. Illustrate the structure of adrenal gland with its functions.

Or

14.b. Describe the functions of pancreas.

15.a. Explain the role of placenta.

Or

15.b. Sketch the male reproductive organ and explain its functions.

**Part C**

**Answer the following**

**5 x 12=60**

**Answer should not exceed 800 words or four pages**

16.a. Discuss about blood transfusion and blood groups.

Or

16.b. Enumerate the composition and functions of WBC.

17.a. Illustrate the events involved in cardiac cycle.

Or

17.b. Explain the physiological anatomy of respiratory tract.

18.a. Describe about the digestion and absorption of proteins.

Or

18.b. Discuss the mechanism of urine formation.

19.a. Explain the salient features of thyroid gland with structure.

Or

19.b. Express the role of pituitary gland with structure.

20.a. Explain the role of mammary gland and lactation.

Or

20.b. Discuss about the physiology of menstruation.

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