

SAMPLE

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THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF BASIC SCIENCES
ACADEMIC YEAR 2018/2019 – SEMESTER II



BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
BSU4245 - HUMAN PHYSIOLOGY – LEVEL 4
CONTINUOUS ASSESSMENT II (NBT II) DURATION: ONE HOUR

DATE: 20th AUGUST 2019 TIME: 11.00 AM –12.00 NOON

REGISTRATION NO:

IMPORTANT INSTRUCTIONS/ INFORMATIONS TO CANDIDATES

- This question paper consists of 12 pages with 20 Multiple Choice Questions (Part A) and 02 Structured Essay Questions (Part B).
- Write your Registration Number in the space provided.
- Answer ALL questions.
- **Multiple Choice Questions (Part A):** Indicate answers in the answer sheet provided by placing a cross (X) in **INK** in the relevant cage. (Answers in pencil will **NOT** be marked)
- **Structured Essay Questions (Part B):** Write answers within the space provided.
- Do not remove any page/part of this question paper from the examination hall.
- Mobile phones and any other electronic equipment are **NOT** allowed. Leave them outside.
- Please fill the address sheet (See the last page).

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BSU4245 - HUMAN PHYSIOLOGY- LEVEL 4
CONTINUOUS ASSESSMENT II (NBT II)

REGISTRATION NO:

ANSWER SHEET FOR PART A

Q. No.	(a)	(b)	(c)	(d)
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REGISTRATION NO:

Part A – Multiple Choice Questions*(20 marks)*

Choose the most suitable / best answer and indicate with a 'X' in the answer sheet provided.

1. Universal donor is a person with a blood group of,
 - a) B
 - b) A
 - c) O
 - d) AB

2. A cell which lacks a nucleus includes
 - a) T cell
 - b) macrophage
 - c) neutrophil
 - d) erythrocyte

3. Blood in the right atrium passes into the right ventricle through the
 - a) pulmonary valve
 - b) tricuspid valve
 - c) aortic valve
 - d) bicuspid valve

4. Pacemaker region of the heart is
 - a) sinoatrial node
 - b) right atrium
 - c) atrioventricular node
 - d) atrioventricular bundle

5. Which one of the following is accurate regarding the blood pressure?
 - a) It is lowest in the aorta
 - b) Maximum pressure is obtained during ventricular systole
 - c) It is highest in large veins
 - d) It is constant throughout the cardiovascular system

6. The main structural difference between arteries and veins is the presence of
- endothelium in arteries
 - valves in veins
 - smooth muscles in the arterial wall
 - elastin fibres in the veins
7. Major lymphatic organ includes
- liver
 - stomach
 - spleen
 - kidney
8. A major immunoglobulin found in the digestive juices is
- Ig A
 - Ig M
 - Ig G
 - Ig E
9. Non – specific immunity includes
- helper T cells
 - interferon
 - B cells
 - cytotoxic T cells
10. Immunoglobulins (antibodies)
- are produced by B cells
 - are H shaped
 - are lipid molecules
 - have three light chains
11. An example of active immunity includes
- BCG vaccination
 - transfer of a mother's antibodies to the baby through the placenta
 - injecting anti venom in snake bites
 - a new - born baby getting antibodies through breast milk

12. Structure which is not included in the conduction zone of the respiratory system is

- a) larynx
- b) trachea
- c) nasal cavity
- d) alveoli

13. A disease condition associates with lung surfactants is

- a) new – born respiratory distress syndrome
- b) pneumonia
- c) tuberculosis
- d) bronchitis

14. Function of bile is digestion of

- a) polysaccharides
- b) fats
- c) proteins
- d) mineral salts

15. Accessory organ of gastrointestinal tract includes

- a) spleen
- b) large intestine
- c) liver
- d) stomach

16. A component of gastric juice is

- a) hydrochloric acid
- b) sodium bicarbonate
- c) bile
- d) insulin

17. A substance which completely reabsorb in the renal tubules of a healthy individual includes

- a) water
- b) sodium ions
- c) urea
- d) glucose

18. A substance which is secreted to renal tubules includes
- a) amino acids
 - b) creatinine
 - c) water
 - d) chloride ions
19. A hormone produced by the placenta is
- a) progesterone
 - b) follicular stimulating hormone
 - c) oxytocin
 - d) luteinizing hormone
20. Which one of the following is correct regarding ovarian cycle?
- a) High blood level of progesterone causes the ovulation
 - b) Developing follicles produce follicle stimulating hormone
 - c) Corpus luteum secretes luteinizing hormone
 - d) Follicular stimulating hormone stimulates follicular development

REGISTRATION NO:

Part B –Structured Essay Questions*(80 marks)*

Write answers in the space provided.

1. I. Following blood pressure readings were observed in a normal healthy adult.

Systolic pressure 120 mmHg

Diastolic pressure 90 mmHg

- a) Calculate the pulse pressure. (5 marks)

- b) Calculate the Mean Arterial Pressure. (5 marks)

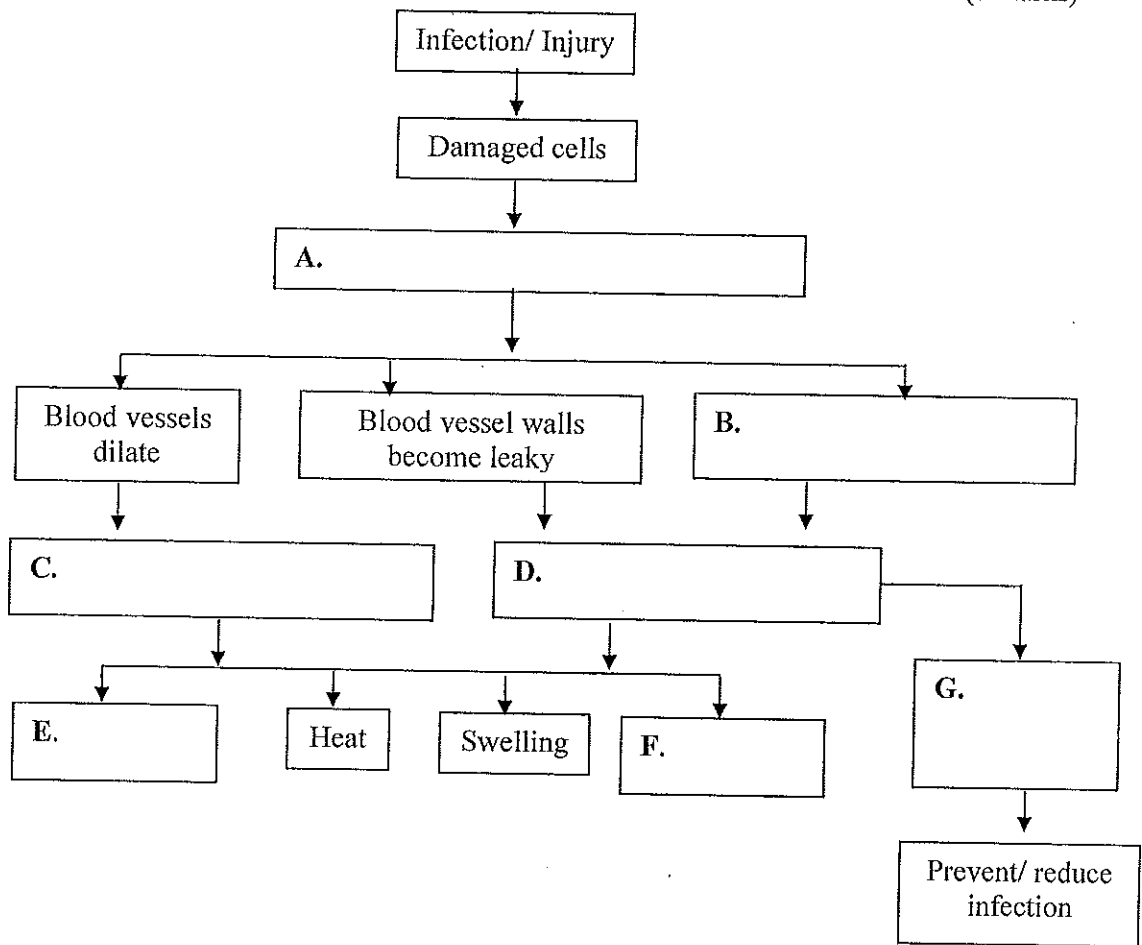
- II. a) Name **three (03)** phagocytic cells in the human immune system. (3 marks)

i.

ii.

iii.

b) The process of inflammatory response is given below. Identify the steps involved in A – G. (7 marks)



III. List two (02) functions of the lymphatic system.

(10 marks)

- i.
-
- ii.
-

IV. Outline the different modes of carbon dioxide transport from tissues to lungs. (10 marks)

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2. I. List five (05) functions of the liver. (10 marks)

i.

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ii.

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iii.

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iv.

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v.

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II. a) Name **three (03)** salivary glands.

(6 marks)

- i.
- ii.
- iii.

b) List **two (02)** functions of saliva.

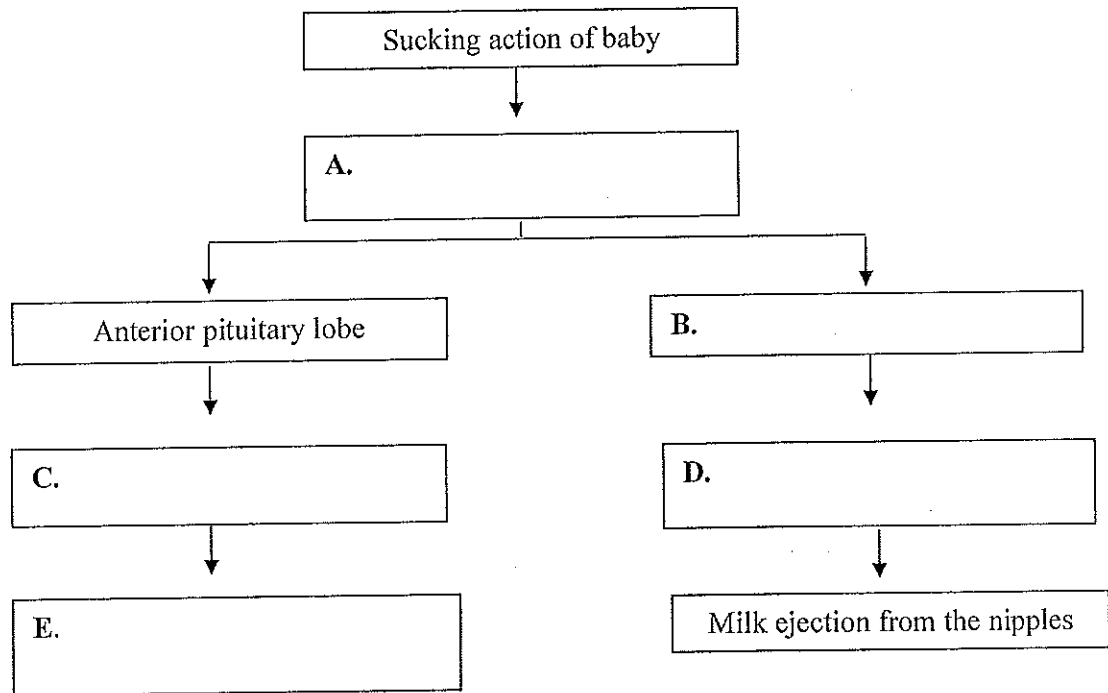
(4 marks)

- i.
.....
- ii.
.....

III. Draw a clearly labelled diagram to show the regions of a nephron.

(10 marks)

IV. Hormonal control of lactation (breast feeding) is given below. Identify the components in A- E. (10 marks)



Reg. No:.....

Name:.....

Address:

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