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



**BACHELOR OF PHARMACY HONOURS
BSU 3431 - HUMAN PHYSIOLOGY – LEVEL 3
FINAL EXAMINATION**

DURATION: THREE HOURS

DATE: 28th FEBRUARY 2019

TIME: 09.30 AM – 12.30 PM



Part B – Structured Essay Questions

(40 marks)

Write answers in the space provided.

1. a) Name the two (02) main types of cells found in the nervous tissue. (2 marks)

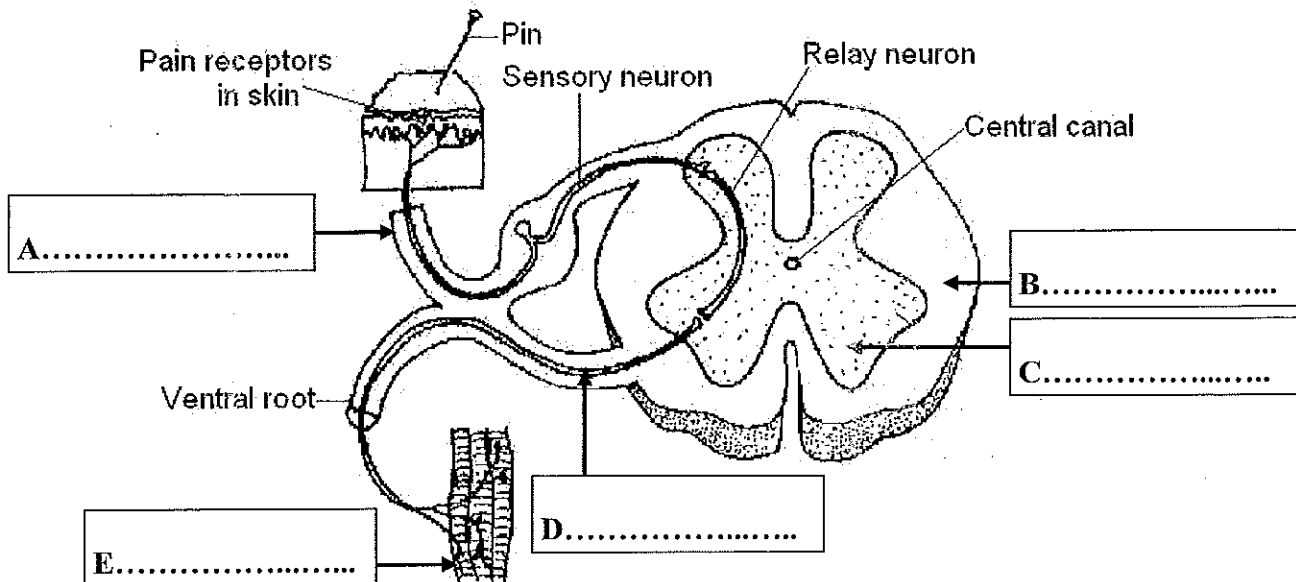
I.

II.

b) What is the action potential of a nerve cell? (3 marks)

.....

c) A cross section of a spinal cord is given below. Identify the components in A, B, C, D and E. (5 marks)



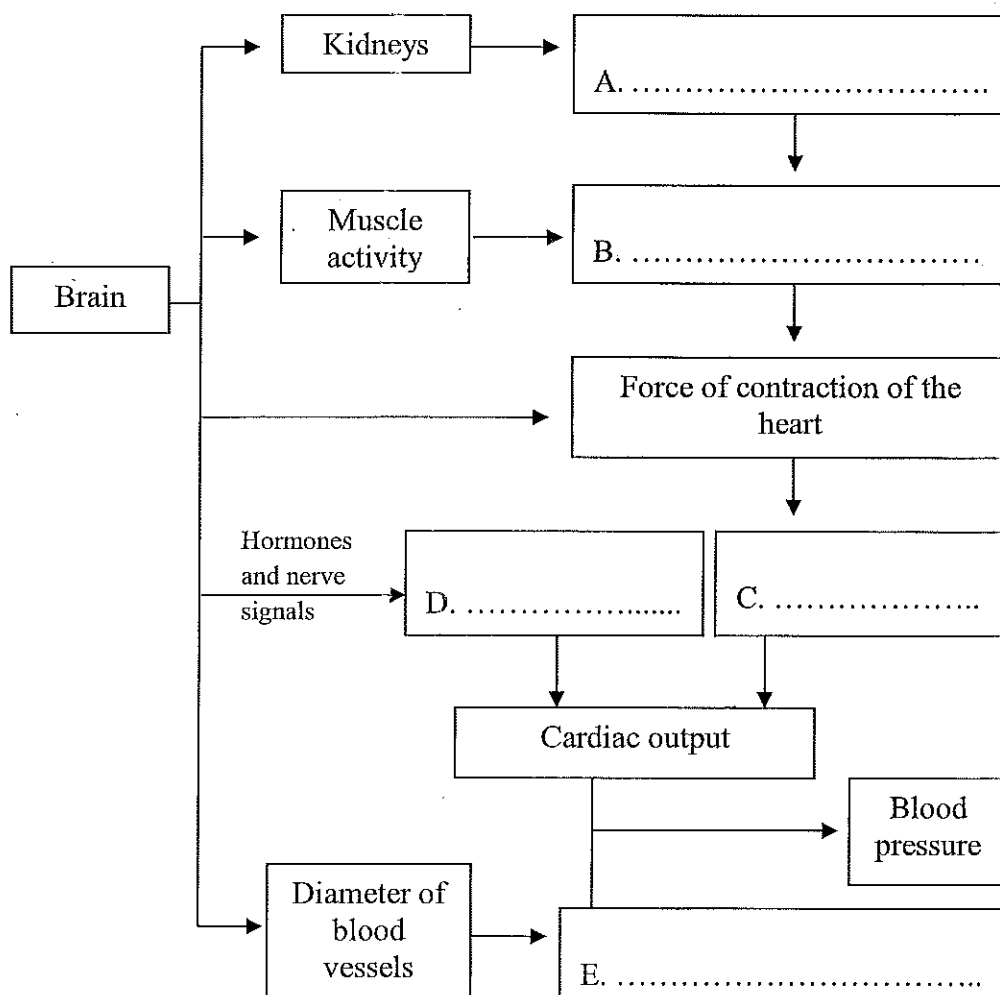
2. a) List three (03) main steps of stopping bleeding when a blood vessel is damaged. (3 marks)

- I.
- II.
- III.

b) Name two (02) phagocytic cells in the human immune system. (2 marks)

- I.
- II.

c) Following flow chart shows the factors influencing the blood pressure. Identify the factors A, B, C, D and E. (5 marks)



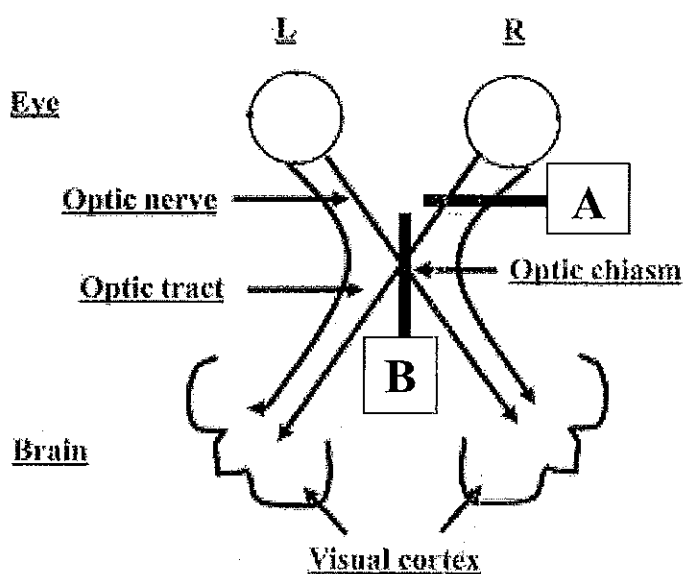
3. a) List three (03) functions of the blood brain barrier. (3 marks)

- I.
-
- II.....
-
- III.
-

b) List two (02) uses of lumbar puncture. (2 marks)

- I.
-
- II.....
-

c) Following diagram shows the lesions in the right optic nerve (A) and the optic chiasm (B). Identify visual defects produced by these lesions and draw them in the table given below. (5 marks)



Lesion	Left Eye	Right Eye	Visual Defect
A	○	○
B	○	○	Bitemporal hemianopia

4. a) Name three (03) hormones that regulate calcium levels in the human body. (3 marks)
- I.
- II.
- III.
- b) List three (03) cardiovascular changes in pregnancy. (3 marks)
- I.
- II.
- III.
- c) List four (04) changes that occur during aging in the digestive system. (4 marks)
- I.
- II.
- III.
- IV.

Part C – Essay Questions

(30 marks)

Answer all questions.

Write answers in the books provided.

1. Outline the physiological basis of
 - a) Truncal obesity, purple striae and osteoporosis in Cushing's syndrome. (10 marks)
 - b) Bell's palsy (5 marks)

2. Describe a 28-day ovarian cycle, including changes in the follicles in response to changing hormone levels. (15 marks)