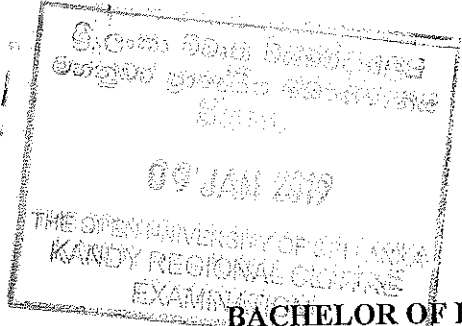


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**THE OPEN UNIVERSITY OF SRI LANKA**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF BASIC SCIENCES**  
**ACADEMIC YEAR 2018/2019 – SEMESTER I**



**BACHELOR OF PHARMACY HONOURS**  
**BSU3431 - HUMAN PHYSIOLOGY – LEVEL 3**  
**CONTINUOUS ASSESSMENT II (NBT II)**

**DURATION: ONE HOUR**

**DATE: 09<sup>th</sup> JANUARY 2019**

**TIME: 09.00 AM – 10.00 AM**

**REGISTRATION NO: .....**

**IMPORTANT INSTRUCTIONS/ INFORMATIONS TO CANDIDATES**

- This question paper consists of 10 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).

**BACHELOR OF PHARMACY HONOURS**  
**BSU3431 - HUMAN PHYSIOLOGY- LEVEL3**  
**CONTINUOUS ASSESSMENT II (NBT II)**

REGISTRATION NO: .....

**ANSWER SHEET FOR PART A**

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

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**Part A – Multiple Choice Questions***(40 marks)*

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

1. Water reabsorption occurs in the nephron by
  - a) osmosis
  - b) simple diffusion
  - c) facilitated diffusion
  - d) active transport
  
2. A substance which is not found in the urine of a healthy individual includes
  - a) water
  - b) urea
  - c) glucose
  - d) hydrogen ions
  
3. A pituitary hormone which acts mainly on the kidney is
  - a) adrenocorticotrophic hormone
  - b) antidiuretic hormone
  - c) prolactin
  - d) growth hormone
  
4. A substance which is secreted to renal tubule includes
  - a) sodium ions
  - b) glucose
  - c) amino acids
  - d) penicillin
  
5. Which one of the following statement is correct regarding the formation of urine?
  - a) Glomerular filtration is a selective process
  - b) The descending limb of loop of Henle is impermeable to water
  - c) Tubular secretion occurs mainly in the proximal convoluted tubule
  - d) Tubular reabsorption is a non – selective process

6. Reabsorption of sodium is the main function of
- cortisol
  - aldosterone
  - antidiuretic hormone
  - epinephrine
7. Select the best example for a positive feedback effect of hormonal action.
- Blood sugar regulation
  - Thermoregulation
  - Normal parturition (labour)
  - Blood pressure regulation
8. A hormone secreted by the anterior pituitary is
- growth hormone
  - thyroxin
  - antidiuretic hormone
  - none of the above
9. Basal metabolic rate is regulated by
- oxytocin
  - thyroxin
  - progesterone
  - parathyroid hormone
10. Regulation of serum calcium level is the main function of
- prolactin
  - triiodothyroxine
  - parathyroid hormone
  - insulin
11. A steroid hormone includes
- cortisol
  - epinephrine
  - thyroxin
  - calcitonin

12. Testosterone synthesis is the main function of
- primary spermatocytes
  - Sertoli cells
  - spermatozoa
  - Leydig cells
13. Cell division by meiosis occurs in the
- seminiferous tubules
  - skin
  - gastrointestinal epithelium
  - respiratory epithelium
14. Which one of the following is incorrect regarding ovarian cycle?
- Follicle stimulating hormone stimulates follicular development
  - High blood levels of luteinizing hormone cause the ovulation
  - Developing follicles produce follicle stimulating hormone
  - Corpus luteum secretes progesterone
15. A hormone used to detect pregnancy is
- follicle stimulating hormone
  - human chorionic gonadotropin
  - luteinizing hormone
  - progesterone
16. A hormone which stimulates milk production in the breasts is
- follicle stimulating hormone
  - thyroxine
  - prolactin
  - progesterone
17. A hormone which acts on the uterus is
- oxytocin
  - adrenocorticotrophic hormone
  - antidiuretic hormone
  - prolactin

18. Posterior columns of the spinal cord transmit the sensation of
- a) touch
  - b) joint position sense
  - c) vibration
  - d) all of the above
19. The functional area of hearing in the brain is
- a) occipital lobe
  - b) temporal lobe
  - c) parietal lobe
  - d) frontal lobe
20. Which one of the following statement is incorrect regarding colour blindness?
- a) It is detected by ophthalmoscopy
  - b) It is a X – linked disorder
  - c) Ishihara colour charts are used to detect it
  - d) It affects males than females

REGISTRATION NO: .....

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


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Write answers in the space provided.

1. a) What is meant by hypothalamo – hypophyseal tract? (4 marks)

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- b) Briefly describe the action of steroid and non – steroid hormones. (10 marks)

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c) Name **two (02)** disorders of growth hormone secretion. (2 x 2 = 4 marks)

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

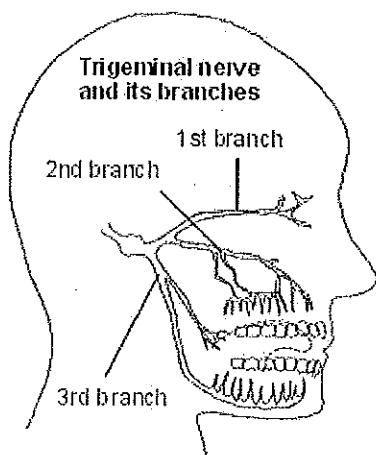
d) List **three (03)** common thyroid disorders. (2 x 3 = 6 marks)

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

e) List **three (03)** renal changes in pregnancy. (2 x 3 = 6 marks)

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

2. a) A picture of main branches of trigeminal nerve (cranial nerve V) is given below.



I. Identify **three (03)** main branches mentioned above. (2 x 3 = 6 marks)

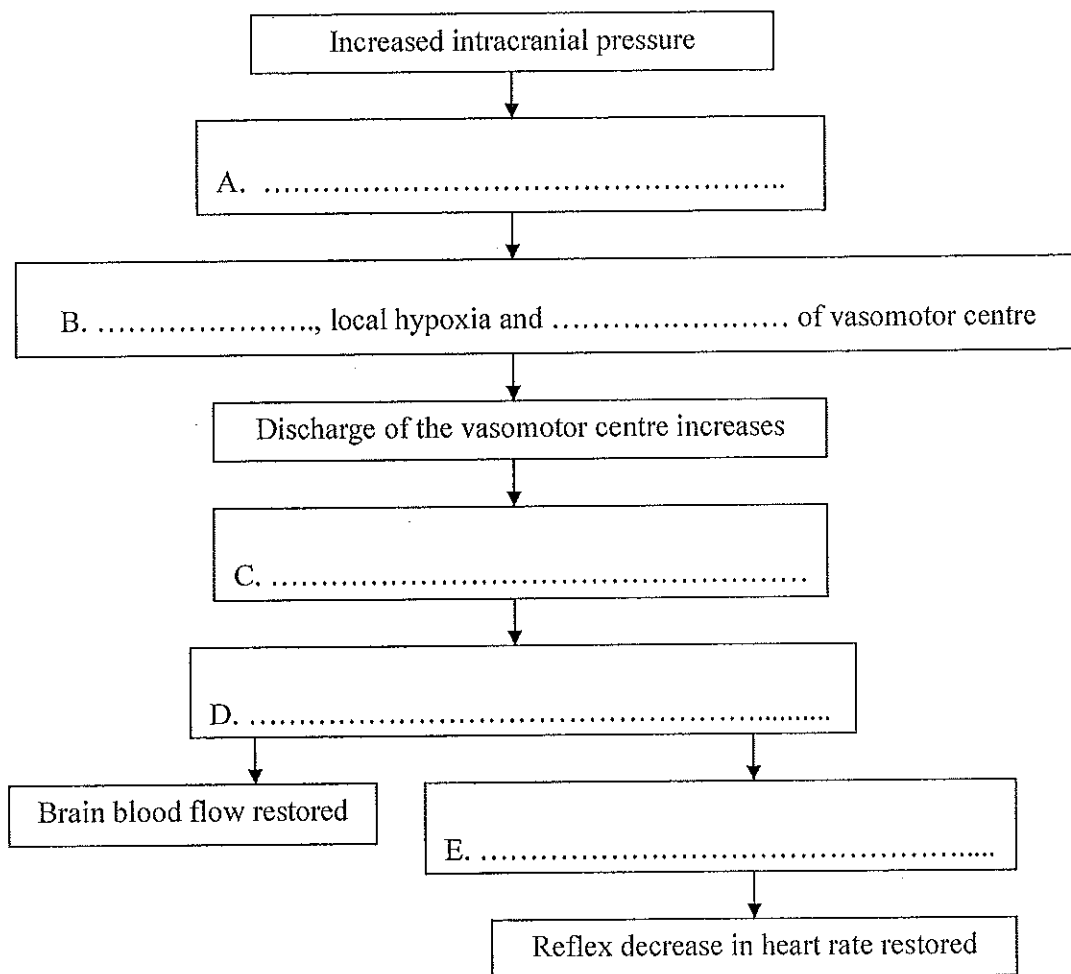
- 1<sup>st</sup> branch - .....
- 2<sup>nd</sup> branch - .....
- 3<sup>rd</sup> branch - .....

II. Name **two (02)** trigeminal nerve nuclei. (2 x 2 = 4 marks)

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



b) Identify events A, B, C, D and E in the following chart regarding a patient with head injury. (2 x 5 = 10 marks)



c) List **three (03)** functions of the hypothalamus. (2 x 3 = 6 marks)

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

d) List **two (02)** main effects occurred during the aging in the respiratory system. (2 x 2 = 4 marks)

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

**Reg. No:**.....

**Name:**.....

**Address:** .....

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