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INSTITUTE OF INDIGENOUS MEDICINE, UNIVERSITY OF COLOMBO, RAJAGIRIYA
BUMS LEVEL II – FIRST SEMESTER EXAMINATION – OCTOBER 2017

PHYSIOLOGY - III
COURSE CODE – AS 2102

Date: 21.11.2017
Time: 2 1/2 hours
(9.45. a.m. – 12.15 p.m.)

Index no

Answer all questions.

Part I - Structured Questions

01.

A. Name the lobes of the cerebral cortex for the following special areas

I. Olfactory area : (0.5 Marks)

II. Wernickes area : (0.5 Marks)

III. Broca's area : (0.5 Marks)

IV. Visual area : (0.5 Marks)

B.

I. How can you elicit Babinski's sign? (02 Marks)

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II. In what kind of neurological condition, this sign will be positive? (01 Mark)

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C.

I. Name two cranial nerves which are both sensory and motor? (01 Mark)

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II. Name three salivary glands and mention its parasympathetic nerve supply? (1.5 Marks)

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D.

I. What is upper motor neuron facial nerve palsy? (01 Marks)

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II. How is it differ clinically from lower motor neuron facial nerve palsy? (1.5 Marks)

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02.

A.

I. List two major functions of the spinothalamic tract? (01 Mark)

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II. What will happen to spinothalamic function, if lesion at spinal level? (01 Mark)

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B.

I. List three motor pathways in the body? (1.5 Marks)

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i. List three types of motor activities of the above pathways? (1.5 Marks)

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C.

I. What is extra pyramidal pathway? (01 Mark)

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II. List the components of this pathway? (1.5 Marks)

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D.

I. What are the characteristic features of Parkinson's disease? (01 Mark)

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II. What component's degeneration produces the above disease? (0.5 Marks)

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III. What kind of neurotransmitter imbalance causes this condition? (01 Mark)

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Part II - Essay Questions

01. Write short notes on the followings

- A. Bell's palsy (05 Marks)
- B. Visceral reflex arc (05 Marks)
- C. Action potential in the neuron (05 Marks)
- D. Left sided homonymous hemianopsia (05 Marks)

02.

A) A patient with organophosphate poisoning who was admitted to emergency medical ward with excessive salivation from the mouth and excessive tearing from his eyes. On examination, his heart rate was 50 beats / minute and his pupil's was constricted.

- I. What is the reason for the above symptom and sign? (03 Marks)
- II. List the other symptoms and signs which may present in this patient? (05 Marks)

B)

- I. What is referred pain? (03 Marks)
- II. Give three examples for referred pain? (03 Marks)

C) List the physiological differences between the sympathetic and parasympathetic nervous system. (06 Marks)

03.

- A. Write the importance of lactate production in anaerobic situations (05 Marks)
- B. Briefly explain the role of Vitamin D in preventing osteoporosis (05 Marks)
- C. Write the fate of urea cycle in humans (05 Marks)
- D. Write the note on the importance of ketone bodies in starvation (05 Marks)
