



Roll No. 1234

4th year's

THE SUPERIOR COLLEGE, LAHORE

First Professional MBBS (Part-2) Annual Examination 2013

C-8

(PHYSIOLOGY)

SUBJECTIVE (SEGS)

Total Marks 45

Total Time 2 Hrs & 10 Mins

DATED: 26-08-2013

INSTRUCTIONS

1-All subjective part is to be submitted within 130 minutes, no extra time will be given.
 2-Neat handwriting, use of margins will increase the cutlook /presentation of your paper.

ATTEMPT ALL QUESTIONS; ALL QUESTIONS CARRY EQUAL MARKS.

1. Draw and label the structure of a nephron. Outline the functions of various parts of the renal tubule. (2, 3)
2. A) Enumerate the stages of swallowing and explain the pharyngeal stage of swallowing. (3)
 B) Define Dysphagia. Enlist the causes. (2)
3. ~~A) Name dorsal column tracts & list the sensations carried by them. (2,5)~~
~~B) Give properties of sensory receptors. (2,5)~~
4. A) Enlist the functions of Basal Ganglia. (2)
 B) Explain the features of Parkinson's disease. (3)
5. A) Give the functional division of cerebellum. (2)
 B) A 55 year old lady came into outdoor with feeling of one sided weakness of body and history of frequent falls during walking. On examination she was walking on broad base and there was tendency to fell when she was asked to walk with closed eyes.
 A. Which part of central nervous system is diseased in this case? (1)
 B. Write all other disturbances which may be present in this patient. (2)
6. A) What is limbic system? Give its parts. (2)
 B) List the functions of hypothalamus. (3)
7. A) Enumerate the hormones involved in blood sugar level regulation. (2)
 B) Discuss the role of insulin in carbohydrates and protein metabolisms. (3)
8. A) Describe the mechanism of ovulation and role of hormones in an adult female. (3)
 B) Draw & mention briefly the phases of female ovarian cycle. (2)
9. A) Discuss briefly the accommodation reflex & its nervous pathway. (5)
 B) Briefly list & describe the error of refraction. (2)



Time Allowed: 2 hours & 10 Minutes

Total Marks: 45

Roll No. -----

Instructions

1. The SEQ's part is to be submitted within 2 hours & 10 Minutes, Extra time will not be given.
2. Neat Hand Writing use of margin and marker for headlines will increase the presentation of your paper
3. Do not write your name or disclose your identity in anyway.

ATTEMPT ALL QUESTIONS: ALL QUESTIONS CARRY EQUAL MARKS

- ✓ 1. A) Enumerate the basal ganglia. Name their important circuits. List their functions. (3)
B) A 50-year-old patient came to an outdoor of a hospital with a complaint of involuntary movements of hands at rest & feeling of stiffness in legs. He also feels difficulty in starting a movement. (0.5)
 - i. Give your diagnosis. (1)
 - ii. Explain pathophysiology of disease. (0.5)
 - iii. How you will treat such patient? (0.5)
- ✓ 2. A) Name dorsal column tracts & list the sensations carried by these. (2.5)
B) Draw a nervous pathway from a peripheral receptor in Dorsal column medial lemniscus system till somatosensory cortex. (2.5)
- ✓ 3. A) What is limbic system? List its parts. (2)
B) List the functions of hypothalamus with corresponding area or nuclei. (3)
- ✓ 4. A) Explain the structure of muscle spindle with diagram with special emphasis on its innervations. Give its important functions. (4)
B) Draw a stretch reflex. (3)
- ✓ 5. A) Give the mechanism of formation of concentrated urine with special emphasis on counter-current multiplier system. (3)
B) Give a summary of function of kidney. (2)
- ✓ 6. A) Enumerate the stages of swallowing and explain the pharyngeal stage of swallowing. (3)
B) Define Dysphagia. Enlist the causes. (2)
- ✓ 7. A) Describe briefly the phases of female ovarian cycle. (2)
B) Discuss functions of placenta with special emphasis on respiratory & endocrine functions. (3)
8. A) A 44-year-old woman, known diabetic presented with backache & a six month history of swellings on bony areas of the body, tightening of rings, more recent headache & decreased vision. She complains of pain in joints.
 - i. Give the diagnosis. (1)
 - ii. Impact of the responsible hormone on the metabolisms of carbohydrates & proteins. (2)
B) Compare the dwarfism due to hypopituitarism with that due to cretinism. (2)
9. A) Define accommodation reflex. Give in detail the reactions for near response. Also describe the retinot pathway for accommodation reflex. (3)
b) Draw olfactory pathway? (2).



THE SUPERIOR COLLEGE, LAHORE

1st PROFESSIONAL MBBS (Part-II)

ANNUAL EXAMINATION 2015

PHYSIOLOGY

(SEQ'S)

Time Allowed: 2 hours & 15 Min

Total Marks: 45

Instructions

1. The SEQ's part is to be submitted within 2 hours & 15 min, Extra time will not be given.
2. Neat Hand Writing use of margin and marker for headlines will increase the presentation of your paper.
3. Do not write your name or disclose your identity in anyway.



X Q:1 Give the mechanism of formation of concentrated urine with special emphasis on counter-current multiplier system. (5)

Q:2 Name the stages of Deglutition. Describe the second stage along with its Nervous control. (5)

Q:3
a) Describe the mechanism of action and functions of Insulin. (2.5)
b) Enlist the hormones of Adrenal Cortex. Describe the regulation and functions of Cortisol. (2.5)

Q:4 Describe the uterine changes during menstrual cycle. Give its hormonal control. (5)

Q:5
a) Give a brief account of origin, pathway & function of pyramidal tract. (3)
b) A 60 year old patient was brought in emergency with complaint of progressive weakness & loss of voluntary control on right side of his body. He is a known hypertensive. On examination, he was unconscious and Babinski's sign was found positive on the right side.
I) What is the most probable diagnosis?
II) What other features related to this disease is expected in this patient. (0.5,1)

Q:6 Draw the neural pathway of visual information from rods and cones to the visual cortex. Give the effect of section of right optic tract. (4,1)

Q:7 when a strong stretch is applied to a muscle, which reflex is initiated? Give the response and receptors involved what is the significance of this reflex? Draw a diagram showing the pathway of this reflex. (1,2,2)

X Q:8 A poor 30 year old lactating mother, breast feeding twins, complained muscular spasms with wrist flexion and extension of finger of the hand. On lab. investigation serum ionized Calcium = 6mg/dl
(a) What is the clinical diagnosis?
(b) Why has calcium been investigated in particular? Why is it low in this case? (1,2,1,1)
(c) Name the hormones controlling the plasma calcium level.
(d) Give the mechanism of action of one of these hormones

Q:9 Draw and label the micturition reflex. Give its nervous control. What is atonic bladder? (3,1,1)

Physiopath
Physiol
Physiomech

31

3 1/2
4
2
2
2
2
2
2
0.5

3 1/2 OPT = N.
4 1/2 di. = N.
3

Time Allowed: 2 hours and 10 minutes

Total Marks: 45

Instructions

1. The SEQs part is to be submitted within 2 hours and 10 minutes, extra time will not be given.
2. Neat hand writing, use of margin and marker for headlines will increase the presentation of your paper.
3. Do not write your name or disclose your identity in anyway.

- Q.1- a) Describe pain suppression (analgesia) system in brain & spinal cord. (2)
 b) Name types of intracranial headache. \rightarrow meningitis headache (1.5)
 c) Give causes of migraine headache. \rightarrow mng pain headache (1.5)
 CSF hyper tension
- Q.2- a) Define synapse and give physiological types of synapse. (1+1)
 b) Enumerate the properties of synaptic transmission. (3)
- Q.3- a) Write down the steps for the synthesis of Thyroid hormone. (2)
 b) A patient came to doctor and told that from the last few days he is feeling nervousness and his sleep is reduced. He has palpitation, and intolerance to heat, has sweating on hands and inspite of fact that his appetite is increased, his body weight is reducing. On examination there was protrusion of eyeball, heart rate was increased and B.P. was raised (Hypertension). In your opinion
 i) What is most probable diagnosis of this condition? (1.5)
 ii) What is pathophysiology of this disease? (1.5)
- Q.4- a) List the components of Limbic system. (2.5)
 b) Write down the functions of Hypothalamus. (2.5)
- Q.5- a) Draw and explain "Micturition Reflex". (3.5)
 b) Describe the atonic bladder. (1.5)
- Q.6- a) Give the functions of Human Chorionic gonadotropin hormone. (2.5)
 b) Sano, a 28 years old, came to gynae outdoor, she told that she was married "3" years back but still had no child. She told that she had normal menstrual cycle of 28 days. On urine examination one week before menstruation = No Pregnanediol level in the blood. Body temperature chart was maintained, it showed that = No rise in body temperature during menstrual cycle.
 In your opinion what is the most probable cause of infertility in this female? (1)
 What is the pathophysiology of this cause? (1)
 What are other causes of infertility? (0.5)
- Q.7- a) What changes occur in the eye, when focused on near object? (1.5)
 b) Explain the nervous mechanism involved. (3.5)
- Q.8- a) Write down the functional division of cerebellum. (2)
 b) Give the mechanism of signal Turn ON/ Turn OFF with special emphasis on the role of Purkinji cells. (3)
- Q.9- a) Give detailed account of site of secretion, mechanism of action and metabolic functions of cortisol. (3.5)
 b) Give pathophysiology and symptoms/ signs of Cushing's Syndrome. (1.5)



THE SUPERIOR COLLEGE, LAHORE

1st PROFESSIONAL MBBS (Part-II)

ANNUAL EXAMINATION 2017

PHYSIOLOGY

(SEQ'S)

Roll No. 29

Total Marks: 45

Time Allowed: 2 hours

Instructions

1. Attempt all questions.
2. All question carry equal marks.
3. The SEQ's part is to be submitted within 2 hours, Extra time will not be given.
4. Neat Hand Writing use of margin and marker for headlines will increase the presentation of your paper.
5. Do not write your name or disclose your identity in anyway.

Q-No: 1

- ✓
- a) Define Synapse. Give an account of properties of synapse. 3
 - b) Enlist the ascending tracts and corresponding sensations carried by these. 2

Q-No: 2.

- ✓
- a) Draw Pyramidal tract & Enumerate its functions. 3
 - b) Outline the important speech areas and their functions. 2

Q-No: 3

- ✓
- a) Define & classify the Memory, give the mechanism of development of long term memory. (3.5) $\frac{2.5}{1.5}$
 - b) Differentiate between anterograde & retrograde amnesia. (1.5) $\frac{1.5}{4}$

Q-No: 4

- ✓
- a) Name the Basal Ganglia. Draw Putamen circuit. 2
 - b) A 50-year-old patient came to an outdoor of a hospital with a complaint of involuntary movements of hands at rest & feeling of stiffness in legs. He also feels difficulty in starting a movement. His face is mask like with no change of expression.
 - I. Give your diagnosis. 1
 - II. Explain pathophysiology of disease. 1
 - III. What other symptoms and signs the patient will show. 1



THE SUPERIOR COLLEGE, LAHORE
2ND PROFESSIONAL MBBS
ANNUAL EXAMINATION 2018
PHYSIOLOGY
(SEQ's)

Time Allowed: 2 hours

Roll No. 95
Total Marks: 45

Instructions

1. Attempt all questions.
2. All question carry equal marks.
3. The SEQ's part is to be submitted within 2 hours, Extra time will not be given.
4. Neat Hand Writing use of margin and marker for headlines will increase the presentation of your paper.
5. Do not write your name or disclose your identity in anyway.

- ~~Q1. A)~~ What are different types of sleep? Give EEG pattern in different stages of sleep? (3)
~~B)~~ Enumerate different disorders associated with sleep. (2)
- ~~Q2. A)~~ Trace the pathway of Light reflex (2.5)
~~B)~~ What is Argyll- Robertson pupil? (2.5)
- ~~Q3.~~ A 50-year-old patient came to an outdoor of a hospital with a complaint of involuntary movements of hands at rest & feeling of stiffness in legs. He also feels difficulty in starting a movement. His face is mask like with no change of expression.
~~i.~~ Give your diagnosis (1)
~~ii.~~ Explain pathophysiology and treatment options of this disease (2)
~~iii.~~ What other signs and symptoms the patient will show ? (2)
- ~~Q4. A)~~ Classify the sensory receptors. (2)
~~B)~~ Enumerate the properties of receptors & describe mechanism of adaptation and its Importance. (3)
- ~~Q5. A)~~ Name all the Ascending tracts & corresponding functions of each tract. (2)
~~B)~~ Describe dual pain pathway along with the pain receptor and nerve fiber involved. (3)
- ~~Q6. A)~~ Explain micturition reflex (3)
~~B)~~ What is Atonic bladder (2)
- ~~Q7. A)~~ Enumerate various factors affecting secretion of Growth Hormone. (3)
~~B)~~ How will you differentiate between pituitary diabetes and adrenal diabetes ? (2)
- ~~Q8. A)~~ Enlist the hormones which stimulate the spermatogenesis. (2)
~~B)~~ What is Capacitation? Give its significance (3)
- ~~Q9. A)~~ Discuss the mechanism of heat gain when a person is exposed to cold. (2.5)
~~B)~~ What is Stress response ? How does it increases the ability of the body to perform vigorous muscular activity? (2.5)