

# AZRA NAHEED MEDICAL COLLEGE LAHORE

PHYSIOLOGY DEPARTMENT  
2<sup>ND</sup> YEAR MBBS 2015-16

Higher  
Brain

UNIT TEST; Higher Brain Functions & ANS

SEQs (SHORT EASSY TYPE QUESTIONS)  
ATTEMPT ALL QUESTIONS. ALL QJESTIONS CARRY EQUAL MARKS.  
Draw diagram wherever required.

MARKS= 30  
TIME = 40min

DATED: 21-07-2016

- Q.1 A. Enlist important speech Centers in brain and describe their Functions. (2.5)  
B. Imran who is 30 years old has speech problem, he can read out the Newspaper with thorough understanding, but can't utter the words. *Motor aphasia*  
i) What type of the speech abnormality he is having? (1.5)  
ii) Which speech area is damaged? (1) *Broca's area*
- Q2.A. What are the components of Limbic system? (2.5)  
B. Write down the Functions of Hypothalamus. (2.5)
- Q3.A. What are different types of sleep? Give EEG pattern in different stages of sleep? (2)  
B. Enumerate different disorders associated with sleep. (1)
- Q4.A. Enlist different types of EEG & give their clinical significance. (2.5)  
B. Define & classify memory. Describe what is antrograde & retrograde amnesia? (2.5)
- Q5.A. Write short Note on circulating pathway, drainage of CSF. (2)  
B. Enlist the Functions of CSF. (2)  
C. What is lumbar puncture? Give its significance. *L3/L4*. (1)
- Q6.A. Name cholinergic & adrenergic receptors. (2)  
B. Compare & contrast the effects mediated by these receptors on Muscles of pupil, Heart muscle & coronary blood vessels, Intestine, Detrusor muscles of urinary bladder, bronchi. (3)

UNIT TEST: HIGHER BRAIN FUNCTION & ANS

SEQs (SHORT EASSY TYPE QUESTIONS)  
ATTEMPT ALL QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

MARKS = 30  
TIME = 40min

DATED: 18-05-2015

- Q1. a) Write down the components of Limbic system. F-168 (3)  
b) Enumerate Functions of limbic system. F-168 (2)  
Q2. a) Classify different types of memory. G-706 (2.5)  
b) Write down the molecular mechanism of intermediate memory. G-707 (2.5)  
Q3. a) Define EEG. Write down different types of EEG along with their characteristics. F-174 (2.5)  
b) Electrocnhalography was done & EEG was recorded from the brain of a medical student, who was about to undergo professional viva examination. G-724 (1.5)  
i) What do you think which type of the EEG wave will be recorded in this condition? (1.5)  
ii) These waves will be recorded from which Lobes of the brain? (1)  
Q4. Compare & contrast the effects of sympathetic & parasympathetic nervous system on Eye, Heart, GIT, Urinary Bladder and Blood vessels. 734-6 = 150ml in adult (5)  
Q5. a) What is normal CSF Pressure and volume? P=110-130mm water (1)  
b) Write down the causes of increased CSF pressure? Standing, coughing, crying, sneezing. (2)  
c) Write down the indications of lumbar puncture and at which level it is done? L3, L4 (2)  
Q6. a) A child was sitting relaxed, watching TV. Suddenly he saw snake coming towards him. He started Shouting, crying for help and running. 738-G  
i) What system/mechanism is activated? Sympathetic mechanism (1)  
ii) What are the other features of this mechanism? ↑ H.P, ↑ B.P, Pupil dilates, ↓ GIT motility. (1.5)  
b) Name the Hypothalamic nuclei & give the function of each nucleus in the tabulated form. (2.5)

AC	AS
AV	ST
CA	SS
CE	ST
CH	SS
CM	SS
CO	SS
CU	SS
CV	SS
CA	SS
CE	SS
CH	SS
CM	SS
CO	SS
CU	SS



**INSTRUCTIONS**  
1-All subjective part is to be submitted within 40 minutes, no extra time will be given.  
2-Neat handwriting, use of margins will increase the outlook /presentation of your paper.

SUBJECTIVE PART (SEQs)

TOTAL MARKS: 30

ATTEMPT ALL QUESTIONS; ALL QUESTIONS CARRY EQUAL MARKS.

- Q1. A) What is limbic system? Enumerate its parts. 168 (F) (2)
- B) Give the functions of Hippocampus and Amygdala. 176 (F) (3)

- Q2. Enlist the functions of hypothalamus. 167 (F) (5)

- Q3. A) Define sleep. Compare slow wave and REM sleep. 72-1 (G) 173 (F) (1+2)
- B) Describe disorders of sleep. 173 (2)

- Q4. A) Define speech. Enlist important speech areas and outline corresponding functions. (3)
- Important disorders of speech: Aphasia, Dysphasia, Dysarthria, Apraxia.* (2)

- Q5. A) Define memory. Classify it. 176 (F) (2.5)
- B) Give the mechanism of consolidation of memory. 748 (G) 748 (G) (1.5)
- C) Define Retrograde Amnesia. LTML (1)

- Q6. Write short notes on:
  - D) Blood brain barrier 149 (F)
  - A) Alzheimer's disease. 727 (G) → Memory loss (1)
  - B) EEG waves and significance of each 174 (F) (3)
  - C) Grandmal epilepsy 725 (F) (1)

Q:- Enlist nuclei of thalamus & their functions? 168 (F)

Q:- What info you can get after analysis of CSF? *Generalized convulsions with abrupt loss of consciousness.*

Q:- List indicators for cerebral pathology?

- (1) If RBC is present it shows brain hemorrhage
- (2) If WBC is present it shows meningitis

Q4c):-  
(A) Ability to express the thoughts and feelings by articulate sound  
⇒ Speech.

→ Broca's area

→ Wernicke's Area.



**TEST: HIGHER BRAIN FUNCTION**

DATED: 06-05-2013

**INSTRUCTIONS**  
1-All subjective part is to be submitted within 40 minutes, no extra time will be given.  
2-Neat handwriting, use of margins will increase the outlook /presentation of your paper.

**SUBJECTIVE PART (SEQs)**

TOTAL MARKS: 30

ATTEMPT ALL QUESTIONS; ALL QUESTIONS CARRY EQUAL MARKS.

- Q1. Enlist the nuclei and their corresponding functions of thalamus. 166 = F (0.5 each = 5)
- Q2. (A) List the indications for lumbar puncture. 176 (2)  
(B) What information you can get after analysis of CSF? 175 (3)
- Q3. (A) Define sleep, Compare slow wave and REM sleep. 178 F (1+2+2)  
(B) Describe at least five disorders of sleep. 173 F, 171 G
- Q4. (A) Define EEG; give the detail of each wave. 174 F, 171 G (3)  
(B) Discuss the disorders of speech with examples. (2)
- Q5. (A) What is Limbic system; Enumerate its parts. 168 F (3)  
(B) Give the functions of Hippocampus and Amygdala. 119, 120 G (2)
- Q6. Write short notes on: (1 each = 5)
- A. Alzheimer's disease 127 G
  - B. Role of hypothalamus in hunger 116
  - C. Memory & its classification 706 G Previous thoughts and experien which can be retrieved
  - D. Grandmal epilepsy 174 F, 125 G
  - E. Blood-brain barrier 142 G

