

Set No. : 1

**RET/15/TEST-B**

46

Question Booklet No. 00010

**646 Neurology**

(To be filled up by the candidate by blue/black ball point pen)

Roll No.

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Roll No. (Write the digits in words) .....

Serial No. of OMR Answer Sheet .....

Day and Date .....

( Signature of Invigilator )

### INSTRUCTIONS TO CANDIDATES

(Use only blue/black ball-point pen in the space above and on both sides of the Answer Sheet)

1. Within 10 minutes of the issue of the Question Booklet, Please ensure that you have got the correct booklet and it contains all the pages in correct sequence and no page/question is missing. In case of faulty Question Booklet, Bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
2. Do not bring any loose paper, written or blank, inside the Examination Hall *except the Admit Card without its envelope.*
3. *A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided.*
4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.
5. *On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.*
6. *No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and Roll No. and OMR sheet no. on the Question Booklet.*
7. *Any change in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.*
8. *This Booklet contains 40 multiple choice questions followed by 10 short answer questions. For each MCQ, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet. For answering any five short Answer Questions use five Blank pages attached at the end of this Question Booklet.*
9. For each question, darken only **one** circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
10. *Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks).*
11. For rough work, use the inner back pages of the title cover and the blank page at the end of this Booklet.
12. *Deposit both OMR Answer Sheet and Question Booklet at the end of the Test.*
13. You are not permitted to leave the Examination Hall until the end of the Test.
14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

**Total No. of Printed Pages : 16**

SEAL

646/Neurology

**ROUGH WORK**

## No. of Questions : 50

Time : 2 Hours

Full Marks : 200

- Note: (1)** This Question Booklet contains **40** Multiple Choice Questions followed by **10** Short Answer Questions.
- (2)** Attempt as many MCQs as you can. Each MCQ carries **3 (Three)** marks. **1 (One)** mark will be deducted for each incorrect answer. **Zero** mark will be awarded for each unattempted question. If more than one alternative answers of MCQs seem to be approximate to the correct answer, choose the closest one.
- (3)** Answer only **5** Short Answer Questions. Each question carries **16 (Sixteen)** marks and should be answered in **150-200** words. Blank **5 (Five)** pages attached with this booklet shall only be used for the purpose. Answer each question on separate page, after writing Question No.

- 01.** Which of the following is pluripotent cell
- |                    |                      |
|--------------------|----------------------|
| (1) Stem cell      | (2) Sertoli cells    |
| (3) Memory t cells | (4) Langerhans cells |
- 02.** Which of the following is NOT a lymphoid organ
- |                |             |
|----------------|-------------|
| (1) Lymphnodes | (2) Tonsils |
| (3) Thyroid    | (4) Spleen  |
- 03.** Enzymes for kreb cycle are located in
- |                  |               |
|------------------|---------------|
| (1) Mitochondria | (2) Cytoplasm |
| (3) Peroxisomes  | (4) Nucleus   |
- 04.** Which of the following is a non communicable disease
- |             |                  |
|-------------|------------------|
| (1) HIV     | (2) Tuberculosis |
| (3) Measles | (4) Tetanus      |

## 646/Neurology

- 05.** Which of the following is NOT a part of immune system of the body ?
- |                      |                    |
|----------------------|--------------------|
| (1) Langerhans cells | (2) Helper T cells |
| (3) Histiocytes      | (4) Reticulocytes  |
- 06.** Ovulation occurs at
- |   |
|---|
| (1) 5 <sup>th</sup> day of menstrual cycle  |
| (2) 14 <sup>th</sup> day of menstrual cycle |
| (3) 21 <sup>st</sup> day of menstrual cycle |
| (4) 28 <sup>th</sup> day of menstrual cycle |
- 07.** Amount of growth hormone secretion reach its peak by
- |           |           |
|-----------|-----------|
| (1) 8 am  | (2) 8 pm  |
| (3) 12 am | (4) 12 pm |
- 08.** Which of the following is false ?
- |  |
|--|
| (1) Bones are attached to other bones by means of tendon           |
| (2) Bones are attached to muscles by means ligaments               |
| (3) Bones are joined to other bones by mean of articular cartilage |
| (4) Bones are joint to each other by mean of fibrous tissue        |
- 09.** Regulators of thirst and hunger centre is present in
- |                  |              |
|------------------|--------------|
| (1) Medulla      | (2) Midbrain |
| (3) Hypothalamus | (4) Cortex   |
- 10.** Which of the following is NOT included in the stages of embryological development ?
- |                        |                      |
|------------------------|----------------------|
| (1) Insemination       | (2) Gastrulation     |
| (3) Blastula formation | (4) Morula formation |

11. All of the following are the parts of Brainstem except  
(1) Mid Brain (2) Cerebellum  
(3) Medulla (4) Pons
12. Which of the following organelle is not found in neurons ?  
(1) Mitochondria (2) Lysosomes  
(3) Golgi Bodies (4) Centromere
13. Which of the following is an excitatory neurotransmitter in brain ?  
(1) Glutamate (2) Ach.  
(3) Dopamine (4) Glycine
14. Memory is related to which part of the brain ?  
(1) Frontal lobe (2) Parietal lobe  
(3) Temporal lobe (4) Occipital lobe
15. Spinal cord is a part of -  
(1) Central nervous System (2) Peripheral nervous system  
(3) Both (4) None
16. Which the following is not a neurodegenerative Disorder ?  
(1) Alzheimer's disease (2) Parkinson's disease  
(3) Motor Neuron disease (4) CVA (Stroke)
17. Which of the following is an infectious disease of neurology ?  
(1) Alzheimer's disease (2) Parkinson's disease  
(3) Huntington's disease (4) Leprosy
18. If both parents are carrier of an autosomal recessive disease then what is the percentage of affection of one offspring ?  
(1) 50% (2) 0%  
(3) 25% (4) 100%

## 646/Neurology

- 19.** Maximum score in Glasgow Coma Scale (GCS) Score is -  
(1) 10 (2) 15  
(3) 20 (4) 5
- 20.** What proportions of mitochondrial disorders caused by mutations in the mitochondrial DNA ?  
(1) 10-20% (2) 40-50%  
(3) 60-70% (4) 90-100%
- 21.** The outermost meningeal covering of the brain is-  
(1) Duramatter (2) Piamatter  
(3) Arachnoid (4) None of the above
- 22.** Technique of recording brain wave is called as -  
(1) Electroencephalography (2) Electrooculography  
(3) Electromyography (4) Nerve conduction Study
- 23.** How many pairs of the cranial nerves are found in Human ?  
(1) 10 (2) 11  
(3) 12 (4) 13
- 24.** Meningitis is -  
(1) Inflammation of brain covering  
(2) Inflammation of brain parenchyma  
(3) None of the above  
(4) Both
- 25.** Which of the following artery does not supply blood to the brain ?  
(1) Internal Carotid Artery (2) External Carotid Artery  
(3) Vertebral Artery (4) Brachial Artery

26. Which of the following is not pain sensitive structure ?  
(1) Meninges (2) Dura covering Arteries  
(3) Brain Parenchyma (4) Sensory nerves
27. Smallest skeletal muscle  
(1) Stepedias (2) Anconcus  
(3) Piriformis (4) Platysma
28. Which of the following is not a movement disorder ?  
(1) Tremor (2) Parkinson's Disease  
(3) Huntington's Disease (4) Epilepsy
29. Which of the following disease causing agent does not contain nucleic acid ?  
(1) Bacteria (2) Virus  
(3) Fungi (4) Prions
30. Most common neurological disorder-  
(1) Stroke (2) Epilepsy  
(3) Neuropathy (4) Headache
31. Deficiency of which of the following vitamins does not cause any neurological disorder ?  
(1) Vit. B1 (2) Vit. K  
(3) Vit. B12 (4) Vit. D
32. Myasthenia Gravis is a disorder of-  
(1) Peripheral Nerves (2) Muscle  
(3) Neuromuscular Junction (4) None of the above

**646/Neurology**

**33.** Neurosyphilis is caused by-

- (1) T.pallidum
- (2) Yaws
- (3) Pinta
- (4) B. burgdorferi

**34.** Neurons primarily derived energy from-

- (1) Glucose
- (2) Proteins
- (3) Fatty Acids
- (4) All of the above

**35.** All of the following are CAG trinucleotide repeat disorder except

- (1) Myotonic Dystrophy
- (2) Huntington s Disease
- (3) Friedrich Ataxia
- (4) SCAs

**36.** Genes implicated in young onset AD

- (1) PS1
- (2) PS2
- (3) APP
- (4) All of the above

**37.** All of the following are cells of nervous system except-

- (1) Neurons
- (2) Astrocyte
- (3) Microglia
- (4) Histiocyte

**38.** Father of EEG is-

- (1) Hans Berger
- (2) Babinski
- (3) Jenn martin Charcot
- (4) Christopher Bernard



**39.** Which of the neurotransmitter act at skeletal neuro muscular junction

- |                    |             |
|--------------------|-------------|
| (1) DA             | (2) Ach     |
| (3) Norepinephrine | (4) Glycine |

**40.** Always fatal disease is-

- |             |         |
|-------------|---------|
| (1) Rabies  | (2) TB  |
| (3) Malaria | (4) HIV |

***Short Answer Questions***

**Note :** Attempt any **five** questions. Write answer in **150-200** words. Each question carries **16** marks. Answer each question on separate page after writing Question Number.

- 01.** Differences between apoptosis and necrosis
- 02.** Role of Glutamate in nervous system
- 03.** Na-K ATPase
- 04.** Superoxide dismutase
- 05.** Stem cell transplantation
- 06.** Pedigree Analysis
- 07.** Karyotyping
- 08.** Cell signaling
- 09.** Protein Targetting
- 10.** Post translational modification

Question No.

Page for Short Answer

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**646/Neurology**

**Question No.**

**Page for Short Answer**

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Question No.

Page for Short Answer

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646/Neurology

Question No.

Page for Short Answer

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Question No.

Page for Short Answer

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## अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर केवल नीली-काली बाल-प्वाइंट पेन से ही लिखें)

1. प्रश्न पुस्तिका मिलने के 10 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।
2. परीक्षा भवन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
3. उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा। केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
4. अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें।
5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृत्तों को गाढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ० एम० आर० पत्र पर अनुक्रमांक संख्या, प्रश्नपुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्नपुस्तिका पर अनुक्रमांक और ओ० एम० आर० पत्र संख्या की प्रविष्टियों में उपरिलेखन की अनुमति नहीं है।
7. उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिए आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है।
9. प्रत्येक प्रश्न के उत्तर के लिए केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।
10. ध्यान दें कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो संबंधित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. रफ कार्य के लिए प्रश्न-पुस्तिका के मुखपृष्ठ के अंदर वाला पृष्ठ तथा उत्तर-पुस्तिका के अंतिम पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त केवल ओ एम आर उत्तर-पत्र परीक्षा भवन में जमा कर दें।
13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/की, भागी होगा/होगी।