

RET/17/TEST-B

631

Anatomy

*(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 30 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 : 20

**ROUGH WORK**  
रफ़ कार्य



## Research Entrance Test-2017

No. of Questions : 50

प्रश्नों की संख्या : 50

Time : 2 Hours

Full Marks : 200

समय : 2 घण्टे

पूर्णाङ्क : 200

**Note: (1)** This Question Booklet contains **40** Multiple Choice Questions followed by **10** Short Answer Questions.

इस प्रश्न पुस्तिका में **40** वस्तुनिष्ठ व **10** लघु उत्तरीय प्रश्न हैं।

**(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.

अधिकाधिक वस्तुनिष्ठ प्रश्नों को हल करने का प्रयत्न करें। प्रत्येक वस्तुनिष्ठ प्रश्न **3 (तीन)** अंकों का है। प्रत्येक गलत उत्तर के लिए **1 (एक)** अंक काटा जायेगा। प्रत्येक अनुत्तरित प्रश्न का प्राप्तांक शून्य होगा। यदि वस्तुनिष्ठ प्रश्नों के एकाधिक वैकल्पिक उत्तर सही उत्तर के निकट प्रतीत हों, तो निकटतम सही उत्तर दें।

**(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.

केवल **5 (पाँच)** लघुउत्तरीय प्रश्नों के उत्तर दें। प्रत्येक प्रश्न **16 (सोलह)** अंकों का है तथा उनका उत्तर **150-200** शब्दों के बीच होना चाहिए। इसके लिए इस पुस्तिका में लगे हुए सादे **5 (पाँच)** पृष्ठों का ही उपयोग आवश्यक है। प्रत्येक प्रश्न का उत्तर एक नए पृष्ठ से, प्रश्न संख्या लिखकर शुरू करें।

- 01.** Which kidney Disease is a "Global Public Health" Problem Worldwide ?
- (1) Acute Kidney Injury (AKI)
  - (2) Kidney Stone
  - (3) Chronic Kidney Disease (CKD)
  - (4) Renal Papillary Necrosis
- 02.** Which Virus affects mainly Human Immune System ?
- (1) Hepatitis A Virus (HAV)
  - (2) Parvo Virus B19
  - (3) Cytomegla Virus (CMV)
  - (4) Human Immunodeficiency Virus (HIV)
- 03.** Which BHU Alumnus is honoured with "Bharat Ratna" ?
- |                     |                         |
|---------------------|-------------------------|
| (1) Prof.K.N.Udappa | (2) Prof.O.N.Srivastava |
| (3) Prof.C.N.R.Rao  | (4) Prof.R.D.Dwivedi    |
- 04.** Which of the following drug is used as "Immunosuppression" ?
- |                   |                  |
|-------------------|------------------|
| (1) Citrofloxacin | (2) Aspirin      |
| (3) Ampicillin    | (4) Cyclosporine |
- 05.** The Probability of a particle to cross a barrier of height more than the kinetic energy of the particle is :
- |                          |         |
|--------------------------|---------|
| (1) zero                 | (2) one |
| (3) between zero and one | (4) 50% |

06. Deficiency of which of the following mineral nutrients induces dental carries and mottled enamel ?

- |                |            |
|----------------|------------|
| (1) Molybdenum | (2) Cobalt |
| (3) Fluorine   | (4) Iron   |

07. Oxidation number of Iodine is highest in which compound ?

- |                     |                      |
|---------------------|----------------------|
| (1) KI              | (2) KI <sub>3</sub>  |
| (3) IF <sub>5</sub> | (4) KIO <sub>4</sub> |

08. In which part of our body, antibodies are formed ?

- |                 |            |
|-----------------|------------|
| (1) Brain       | (2) Lungs  |
| (3) Bone marrow | (4) Spleen |

09. Which of the following sensations is not generated by impulses initiated in naked nerve endings ?

- |           |           |
|-----------|-----------|
| (1) Touch | (2) Pain  |
| (3) Cold  | (4) Smell |

10. Sound cannot travel through :

- |          |            |
|----------|------------|
| (1) Air  | (2) Water  |
| (3) Fire | (4) Vacuum |

11. Klumpke's palsy involves all except :

- |        |        |
|--------|--------|
| (1) C6 | (2) C7 |
| (3) C8 | (4) T1 |

12. Pleural tapping in mid-axillary line, muscle not pierced is :
- (1) Internal intercostals                      (2) External intercostals  
(3) Innermost intercostals                      (4) Transversus thoracis
13. Middle meningeal artery is transmitted through :
- (1) Foramen Rotundum                      (2) Foramen Ovale  
(3) Foramen Spinosum                      (4) Foramen Lacerum
14. All are motor nerves except :
- (1) Accessory                      (2) Abducent  
(3) Trochlear                      (4) Trigeminal
15. The total volume of CSF is :
- (1) 50 ml                      (2) 100 ml  
(3) 150 ml                      (4) 275 ml
16. Mitral cells are present in :
- (1) Kidney                      (2) Mitral Valve  
(3) Olfactory Tract                      (4) Optic Nerve
17. All are fibrous joints except :
- (1) Skull Sutures                      (2) Tooth Socket  
(3) Inferior Tibiofibular joint                      (4) Symphysis pubis

18. Neural crest derivatives are all except :

- |                              |                            |
|------------------------------|----------------------------|
| (1) Melanocytes              | (2) Schwann Cells          |
| (3) Thyroid Follicular Cells | (4) Parafollicular C cells |

19. Substances which do not cross the placental membranes are all except :

- |         |         |
|---------|---------|
| (1) IgG | (2) IgA |
| (3) IgM | (4) IgE |

20. Double barr body is seen in :

- |                       |                            |
|-----------------------|----------------------------|
| (1) Turner's Syndrome | (2) Klienfilter's Syndrome |
| (3) XXX Syndrome      | (4) Down's Syndrome        |

21. Combined action of which muscle cause intorsion of the eye ?

- (1) Superior oblique & superior rectus
- (2) Superior rectus & inferior rectus
- (3) Inferior rectus & inferior oblique
- (4) Inferior oblique & superior oblique

22. All of the following muscles have bony attachments except :

- |              |                       |
|--------------|-----------------------|
| (1) Procerus | (2) Orbicularis oculi |
| (3) Risorius | (4) Platysma          |



23. Which nerve is related to the neck of the mandible ?
- (1) Auriculotemporal                      (2) Masseteric  
(3) Inferior alveolar                      (4) Lingual
24. Facial nerve is functionally related to all of the following ganglia except :
- (1) Pterygopalatine                      (2) Otic  
(3) Geniculate                              (4) Submandibular
25. Which artery grooves the medial surface of the mastoid bone ?
- (1) Cerebral                                  (2) Occipital  
(3) Posterior auricular                      (4) Deep cervical
26. Internal jugular vein is a continuation of which sinus ?
- (1) Superior petrosal                      (2) Cavernous  
(3) Sigmoid                                  (4) Transverse
27. Paralysis of the soft palate leads to all of the following except :
- (1) Nasal twang in voice  
(2) Nasal regurgitation  
(3) Deviation of uvula to the affected side  
(4) Flattening of palatal arch

28. At the level of which one of the following tooth, modiolus of the mouth lies ?
- (1) Upper first premolar                      (2) Upper second premolar  
(3) Upper second molar                      (4) Lower second molar
29. Which one of the following is called as safety muscle of the larynx ?
- (1) Transverse arytenoids                      (2) Cricothyroid  
(3) Posterior cricoarytenoid                      (4) Lateral cricoarytenoid
30. What is the average length of the spinal cord in centimeters ?
- (1) 45    (2) 55  
(3) 65    (4) 75
31. Mode of secretion of sebaceous gland is :
- (1) Apocrine    (2) Merocrine  
(3) Holocrine    (4) Ecrine
32. Osteogenesis imperfect is an example of the :
- (1) Autosomal recessive trait                      (2) Autosomal dominant trait  
(3) X-linked dominant trait                      (4) X-linked recessive trait
33. Veins are an example of the :
- (1) Conducting vessel                                      (2) Distributing vessels  
(3) Capacitance vessel                                      (4) Resistance vessel

34. Red Bone marrow, in adult, is **not** found in :
- (1) Skull bones
  - (2) Sternum
  - (3) Medullary cavity of long bone
  - (4) Bodies of vertebrae
35. Structures are derived from septum transversum :
- (1) Fibrous structure of liver
  - (2) Parenchyma of liver
  - (3) Billiary ducts
  - (4) Coronary ligament
36. Legamentum tereshepatic represents the :
- (1) Right umblical vein
  - (2) Left umblical vein
  - (3) Right umblical artety
  - (4) Left umbilical artery
37. In acute appendicitis, pain elicited in which abdominal quadrant :
- (1) Epigastric
  - (2) Umblical
  - (3) Right iliac fossa
  - (4) Left Iliac fossa
38. Pulsation of dosalis pedis artery is felt at :
- (1) Above to extensor retinaculum
  - (2) Lateral to extensor hallucis longus
  - (3) Below to extensor retinaculum
  - (4) Medial to extensor hallucis longus

**39.** The juxtaglomerular apparatus consists of :

- |                    |                     |
|--------------------|---------------------|
| (1) Macula densa   | (2) Collagen fibers |
| (3) Lipid droplets | (4) Elastic fibres  |

**40.** The joint between head of ribs and bodies of thoracic vertebrae is:

- |                           |                             |
|---------------------------|-----------------------------|
| (1) Primary cartilaginous | (2) Secondary cartilaginous |
| (3) Synovial              | (4) Fibrous                 |

### ***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. Cell surface receptors.
02. Ultra structure of conduction tissues of heart
03. Fluorescence microscopy
04. Ectopic thyroid gland and thyroglossal cyst
05. Steps involved in invitro fertilisation
06. Microstructure of kidney
07. Microstructure of cerebral hemisphere
08. Lethal dose-50
09. Human stem cells
10. Describe briefly the blood supply and age changes in uterus

Question No.

Page for Short Answer

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Question No.

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Question No.

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**ROUGH WORK**

रफ़ कार्य

ROUGH WORK  
रफ़ कार्य

## 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 30 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।