

2016.

Set No. : 1

Question Booklet No.

RET/16/TEST-B**671****Dental Science**

(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

13.

RET/16/TEST-B

671/Dental Science

ROUGH WORK

रफ़ कार्य

Research Entrance Test-2016

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. Trypsin differs from pepsin in digestion of proteins in :
(1) Acidic medium (2) Alkaline medium
(3) Neutral medium (4) Different pH ranges
2
02. Caloric value is maximum in :
(1) Fats (2) Vitamins
(3) Proteins (4) Sugars
1
03. Bulk of tooth in a mammal is made up of :
(1) Root (2) Pulp cavity
(3) Dentine (4) Enamel
3
04. Nyctalopia is caused by the deficiency of vitamin :
(1) E (2) A
(3) D (4) B₁₂
2
05. Which of the following is most abundant types of antibodies ?
(1) IgA (2) IgE
(3) IgG (4) IgM
3
06. Enzymes of glycolysis are found in :
(1) Glyoxysomes (2) Mitochondria
(3) Cytoplasm (4) Golgi complex
3
07. Trachea 4 bronchi posses :
(1) Incomplete cartilaginous rings
(2) Complete cartilaginous rings
(3) Thick muscular wall
(4) Thick fibrous wall
1

08. Chloride shift is required for transport of :
(1) Nitrogen (2) Oxygen
(3) Carbon Dioxide (3) Carbon Dioxide & Oxygen
09. If nerve supply to heart is cut, the heart will :
(1) Shrink (2) Beat arrhythmically
(3) Beat rhythmically (3) Stop beating
10. Which of the following is an inhibitory neuro-transmitter ?
(1) GABA (2) Adrenaline
(3) Epinephrine (1) Acetylcholine
11. According to stone and church, A toddler age ranges :
(1) 15 month to 2 years (2) <15 month
(3) 2-6 years (4) >6 years
12. Behaviour reinforces given to the children except :
(1) Toys
(2) Watching favorite TV channel
(3) Reward
(4) Bribe
13. Acquisition of Childs sense of trust begins :
(1) Birth to two years of age
(2) At two years of age
(3) At three years of age
(4) At 4 years of age

- 14.** Childs begins focusing on light at :
- (1) 1-4 weeks
 - (2) 4-6 weeks
 - (3) 6-8 weeks
 - (4) 8-12 weeks
- 15.** The volume of fixative solution for biopsy specimen should be :
- (1) 20 times more than vol. of tissues specimen
 - (2) 30 times more than vol. of tissues specimen
 - (3) 10 times more than vol. of tissues specimen
 - (4) 40 times more than vol. of tissues specimen
- 16.** The minimum time required for fixation of small biopsy specimen :
- (1) 8 hrs
 - (2) 24 hrs
 - (3) 48 hrs
 - (4) 72 hrs
- 17.** Most important factor in selecting a clasp is :
- (1) Avoid direct transmission of tipping forces to abutment
 - (2) Basic principles of clasp should be accommodated
 - (3) Location of the undercut
 - (4) Provide retention against reasonable dislodging forces
- 18.** Direct-indirect retention is achieved :
- (1) By the minor connector
 - (2) By the denture base
 - (3) By the embrasure hooks
 - (4) By the occlusal rests
- 19.** Clip in an internal clip attachment is made of :
- (1) Nylon
 - (2) 27 gauge plate metal
 - (3) Platinum alloy
 - (4) 19 gauge metal

- 20.** Cavo-surface margin for core restoration can be :
- (1) 45-135 degrees
 - (2) 90 degrees
 - (3) 90-100 degrees
 - (4) 180-190 degrees
- 21.** Pilot hole for pin restorations are :
- (1) 1mm
 - (2) 0.1mm
 - (3) 2mm
 - (4) 5mm
- 22.** Following are true for Twin Table technique used for occlusal rehabilitation, except :
- (1) Is used for developing molar disclusion
 - (2) Has two incisal tables
 - (3) Has two condylar tables
 - (4) Determine the cusp shape and angle of hinge rotation
- 23.** Occlusal offset :
- (1) Is a S-shaped groove
 - (2) Is a V-shaped groove
 - (3) Is a W-shaped groove
 - (4) Is a U-shaped groove
- 24.** Bezold-Brucke effect refers to :
- (1) A change in hue with change in luminance
 - (2) Metamerism effect
 - (3) Change in brilliance when translucent is applied
 - (4) Formation of internal opacity in ceramic during firing
- 25.** Alveolar bone proper is formed of :
- (1) Haversian bone
 - (2) Compact bone lamellae
 - (3) Bundle bone
 - (4) Partly lamellated and partly of bundle bone

26. The dietary effect on plaque is mostly due to :

- (1) carbohydrates (2) fats
(3) proteins (4) nucleic acids

27. Tooth brush trauma usually occurs on :

- (1) Centrals and laterals (2) Canines and premolars
(3) Second and third premolars (4) First and second molars

28. If a dentist finds only a thin ring of calculus in the bottom third of a deep pocket, it may be assumed that :

- (1) calculus calcified before the pocket reached this depth
- (2) calculus previously extended to the enamel but the top part was removed
- (3) bacterial plaque formed only in deeper region of the pocket
- (4) calculus migrated apically, as the pocket grew deeper and new calculus formed on the apical site while that on occlusion site dissolved

29. All of the following are symptoms of bruxism except :

- (1) Sore muscle and pain in the jaw
- (2) Increased tooth mobility particularly in the morning
- (3) Narrowing of PDL space
- (4) Thickening of the lamina dura

30. The extracellular polysaccharide synthesized in plaque from dietary sucrose are :
- (1) fructans and levans
 - (2) glycogen amylopectin and glucose amylopectin
 - (3) dextrans and glucans
 - (4) fructans and glucans
31. A localized painful rapidly expanding lesion that is usually of sudden onset is termed as :
- (1) Gingival hyperplasia
 - (2) Gingival hypertrophy
 - (3) Gingival abscess
 - (4) Gingival ulceration
32. Which of the following microorganisms are commonly present in large percentages of root canal treated teeth that present with persistent apical periodontitis, indicative of failed treatment ?
- (1) Enterococcus faecalis
 - (2) Pseudomonas aeruginosa
 - (3) Tannerella forsythia
 - (4) Dialister invisus
33. A retentive cove is prepared on :
- (1) Axiofaciogingival angle
 - (2) Axioincisal angle
 - (3) Axioinguogingival angle
 - (4) Axioingival line angle

- 34.** Using the case Difficulty Assessment system developed by the American Association of Endodontics, cases in which any factors score 3 should be :
- (1) Treated by a general dentist
 - (2) Treated by an endodontist
 - (3) Should be referred to endodontist for opinion only
 - (4) Tooth is not treatable and hence extracted
- 35.** Laser Doppler Flowmetry utilizes light beam which is scattered by moving red blood cells. What is the name of the light beam :
- (1) Helium Neon
 - (2) Argon
 - (3) Diode
 - (4) Xenon light
- 36.** What is the effect on blood flow to the pulp when anesthetics with vasoconstrictors are used during restorative procedures ?
- (1) Reduced by 10% its normal rate
 - (2) Reduced to less than half its normal rate
 - (3) Unchanged
 - (4) Increased by 25% because of stress on the pulp tissue
- 37.** Elevated body temperature, generalized malaise and nausea are most frequently associated with :
- (1) Acute periapical abscess
 - (2) Pulp necrosis
 - (3) Chronic hyperplastic pulpitis
 - (4) Acute pulpitis

- 38.** In case of necrotic tooth patient still complains of pain because of :
- (1) Transmodulation of A beta type of fibre
 - (2) Transmodulation of A delta type of fibre
 - (3) Transmodulation of C type of fibre
 - (4) Transmodulation of A gamma type of fibre
- 39.** Optional location for intra osseous anesthesia for mandibular second molars is :
- (1) Distal to the molar
 - (2) Mesial to the molar
 - (3) In the furcation area
 - (4) Apical perforation and injection
- 40.** The ferrule effect :
- (1) Prevents horizontal fracture of the clinical crown
 - (2) Reinforces against vertical root fracture
 - (3) Gives stability to the coronal restoration
 - (4) Provides retention of the dowel

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.** Briefly discussed about Dental Management of a patient having Glucose -6- Phosphate dehydrogenase deficiency ?
- 02.** CSF
- 03.** Physiological aspect of treating a patient
- 04.** Expansion in orthodontics
- 05.** Aversive conditioning
- 06.** Study models
- 07.** Osseo-perception
- 08.** Dentogenic concept
- 09.** Bone metabolic markers
- 10.** Bone grafts and bone substitutes

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 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।