

Set No. 1

SET/17/TEST-B

671

Dental Science

Question Booklet No.....

(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 mark).*
1. For rough work, use the inner back pages of the title cover and the blank page at the end of this Booklet.
2. *Deposit both OMR Answer Sheet and Question Booklet at the end of the Test.*
3. *You are not permitted to leave the Examination Hall until the end of the Test.*
4. 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.

एक निश्चित क्रम में अक्षर आकृति-पृष्ठ पर दिये गए हैं।

(No. of Printed Pages) 23

ROUGH WORK

रफ़ कार्य

Research Entrance Test—2017

No. of Questions/प्रश्नों की संख्या : 50

Time/समय : 2 Hours/घण्टे

Full Marks/पूर्णांक : 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)** लघु उत्तरीय 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।

1. Injection of the lower lip spreading via lymph would first enter blood at
(1) inferior labial vein (2) pterygoid plexus
(3) brachiocephalic vein (4) facial vein
2. Gene responsible for tooth proliferation in molars is
(1) Pax 9 (2) *BLL 2* (3) BRAX Gene (4) MXX Gene
3. Optimum concentration of fluoride in drinking water is
(1) 0-0.5 p.p.m. (2) 0.5-1 p.p.m.
(3) 0.7-1.2 p.p.m. (4) 0.9-1.4 p.p.m.
4. An absolute contraindication for extraction of teeth is
(1) hypertension (2) myocardial infarction
(3) thyrotoxicosis (4) central haemangioma
5. The division of a single tooth resulting in one normal and one supernumerary tooth is termed as
(1) gemination (2) fusion (3) concrescence (4) twinning
6. HAIR ON END appearance in a skull radiograph is seen in
(1) fibrous dysplasia (2) Garre's osteomyelitis
(3) thalassemia (4) Paget's disease

7. Relapse in rotated tooth can be avoided by
- (1) frenectomy
 - (2) maintaining integrity of arch
 - (3) splinting
 - (4) circumferential supracrestal fiberotomy
8. Primary denture support area for mandibular complete denture is
- (1) the ridges
 - (2) the vestibule
 - (3) palatopharyngeal fold
 - (4) buccal shelf area
9. The Pontic which is hygienic and easy to clean is
- (1) ridge lap
 - (2) saddle
 - (3) sanitary
 - (4) round
10. Which material is recommended for restoring the root caries?
- (1) Zinc oxide eugenol
 - (2) Glass ionomer cement
 - (3) Silver amalgam
 - (4) Composites
11. Flossing aids can be started at the age of
- (1) infants (0-1 year)
 - (2) toddlers (1-3 years)
 - (3) preschool age (3-6 years)
 - (4) adolescent age (12-19 years)
12. The greatest stress that can be induced in a body without rupture is
- (1) proportional limit
 - (2) yield strength
 - (3) tensile strength
 - (4) ultimate strength

- 13.** For all practical purposes, the clasp should have
- (1) high Proportional Limit (PL) and low Modulus of Elasticity (MOE)
 - (2) high PL and high MOE
 - (3) low PL and high MOE
 - (4) low PL and low MOE
- 14.** The disadvantage of palatal plate over a bar is
- (1) can be thinner
 - (2) can transfer occlusal load
 - (3) covers more tissue
 - (4) do not worry the tongue
- 15.** A dentist is preparing all maxillary anterior teeth for anterior indirect coverage restoration. Which one of the following procedures is necessary order to preserve and restore anterior guidance?
- (1) Protrusive record
 - (2) Template for provisional restoration
 - (3) Custom incisal guide table
 - (4) Interocclusal record in centric relation
- 16.** What is the common direction of fracture extension in cracked tooth?
- (1) Faciolingual
 - (2) Mesiodistal
 - (3) Horizontal
 - (4) Apical to coronal

7. Preferred pulp test in tooth with metal ceramic restoration is
- (1) heat test (2) electric pulp test
(3) anaesthetic test (4) dry ice test
8. Rate of collagen synthesis is highest in
- (1) periodontal ligament (2) gingiva
(3) skin (4) bone
9. Stippling appears in the children at the age of
- (1) 1 year (2) 1 month (3) 2 years (4) 5 years
10. Highest level of clinical evidence (or gold standard) is obtained from
- (1) case control studies (2) cohort studies
(3) longitudinal studies (4) meta-analysis, systematic reviews
11. Ability of an infectious agent to invade and multiply is called
- (1) infectivity (2) pathogenicity
(3) virulence (4) transmission
12. The student *t*-test is
- (1) a test for comparing proportions
(2) a nonparametric test
(3) a test for comparing averages
(4) a test for comparing variances

23. The dental tissue with highest accumulation of fluoride is
(1) enamel (2) dentine (3) pulp (4) cementum
24. Oedema occurs in inflammatory stage of wound healing due to which one following events?
(1) Exudate collection and rapid lymphatic drainage
(2) Transudate collection and rapid lymphatic drainage
(3) Exudate collection and lymphatic obstruction
(4) Transudate collection and lymphatic obstruction
25. Ethylene oxide which is used for chemical sterilisation is a highly inflamm gas at room temperature. It is mixed with which one of the following agents make it safe to use?
(1) Carbon dioxide (2) Oxygen
(3) Hydrogen (4) Halothane
26. Which one of the following haemostatic agents for a bleeding extraction site can result in delay in the healing of the socket?
(1) Gelatine sponge (2) Figure of eight suturing
(3) Oxidised regenerated cellulose (4) Tannic acid
27. Which of the ionic movement during nerve impulse generation is an active process?
(1) Efflux of sodium ions from intracellular to extracellular
(2) Initial influx of sodium ions from extracellular to intracellular
(3) Displacement of calcium ions from gated channels
(4) Efflux of potassium ions from nerve cell

28. Patients with which one of the following co-morbidity cannot usually biotransform amide local anaesthetic agents in their body at a rate compare to that of normal individual?

- (1) Hypotension
- (2) Presence of atypical pseudocholinesterase
- (3) Odontogenic infection
- (4) Pyrexia

29. Most common Laser used in oral surgery is

- (1) Helium-Neon Laser
- (2) Argon Laser
- (3) Carbon dioxide Laser
- (4) Nd-YAG Laser

30. Assertion : Posterior surface of implant should be 5 mm anterior to mental foramen.

Reason : The mental nerve before exiting from the mental foramen run anteriorly by 3 mm and loops back to exit.

- (1) Both Assertion and Reason are true and Reason is the correct explanation of Assertion
- (2) Both Assertion and Reason are true and Reason is not the correct explanation of Assertion
- (3) Assertion is true but Reason is false
- (4) Both Assertion and Reason are false

- 31.** Inability of eye to look to ipsilateral shoulder may indicate which cranial nerve problem?
- (1) IIIrd (2) IVth (3) IIInd (4) Vth
- 32.** Vickers and Gorlin criteria does not include
- (1) hyperchromatism of basal cell nuclei
(2) palisading and polarization of basal cell nuclei
(3) cytoplasmic vacuolization
(4) breach in basement membrane
- 33.** In early childhood caries there is early carious involvement of all the following teeth, except
- (1) maxillary anterior teeth (2) primary 1st molars
(3) mandibular 2nd molars (4) mandibular incisors
- 34.** False about disclosing agents is
- (1) these are used for patient education
(2) younger children are very much bothered by the discoloration caused
(3) examples are—erythrosine, basic fuchsin
(4) used in all age groups
- 35.** Spontaneous correction of childhood diastema is more likely when its width is not more than
- (1) 5 mm (2) 4 mm (3) 3 mm (4) 2 mm

- 36.** Anterior open bite and maxillary constriction are caused by
- (1) tongue thrusting (2) thumb sucking
(3) nail biting (4) lip biting
- 37.** In children, it can be quite difficult to find the sort of positive 'centric relation' because
- (1) TMJ is not well developed
(2) articular eminence is not well developed
(3) condyle is not well developed
(4) coronoid process is not well developed
- 38.** Which anatomical part of the maxillary artery is closely associated with lines of fracture in Le Fort I, II and III types of injury?
- (1) First part (2) Second part (3) Third part (4) Fourth part
- 39.** Among the following methods, which is the preferred and recommended form of emergency surgical airway management by ATLS ?
- (1) Endotracheal intubation (2) Tracheostomy
(3) Cricothyroidotomy (4) Nasopharyngeal airway
- 40.** Which one of the following nerve fibres are responsible for carrying pain perception from periphery to the CNS ?
- (1) A Alpha and a Beta fibres (2) A Delta and B fibres
(3) A Alpha and C fibres (4) A Delta and C fibres

Short Answer Questions

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

1. *Meta-analysis.*
2. *Laser in dentistry.*
3. *Need of centric occlusion to coincide with centric relation.*
4. *Relevance of spaced and non-spaced primary dentition and their effects developing occlusion.*
5. *Development of lip and palate.*
6. *Basic Life Support (BLS).*
7. *Dental management of hemophilic patient.*
8. *Sampling methods.*
9. *Bone scan.*
10. *Dental implants.*

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 या कार्ली 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 पृष्ठ प्रश्न छूटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्न पुस्तिका को 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 अभाग्य से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा, केवल 3 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 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, प्रश्न-पुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्न-पुस्तिका अनुक्रमांक सं० और ओ० एम० आर० पत्र सं० की प्रविष्टियों में उपरिलेखन की अनुमति नहीं है।
7. उत्प्रेरक प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
8. इस प्रश्न पुस्तिका में 40 वस्तुनिष्ठ व 10 लघु उत्तरीय प्रश्न हैं। प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिये आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये वृत्त को उत्तर पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है। लघु उत्तरीय प्रश्नों के लिये इस पुस्तिका में लागू हुए सादे 5 (पाँच) पृष्ठों का ही उपयोग आवश्यक है। प्रत्येक प्रश्न का उत्तर एक नए से, प्रश्न संख्या लिखकर शुरू करें।
9. प्रत्येक प्रश्न के उत्तर के लिये केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा वृत्त को अक्षरों 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 सम्बन्धित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. मध्य कक्ष के लिये प्रश्न पुस्तिका के मुखपृष्ठ के अन्दर वाले पृष्ठ तथा अंतिम आवरण पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त ओ० एम० आर० उत्तर-पत्र व प्रश्न-पुस्तिका दोनों परीक्षा भवन में जमा कर दें।
13. परीक्षा समाप्त होने में 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 कारण बन सकता है।