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**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

**UNIVERSITY EXAMINATION
2023/2024 ACADEMIC YEAR**

**FIRST YEAR, FIRST TRIMESTER EXAMINATION
FOR THE DEGREE
OF
BACHELOR OF CLINICAL MEDICINE AND SURGERY**

COURSE CODE: HCM 322
COURSE TITLE: DENTAL HEALTH CARE

DATE: TUESDAY 5TH DECEMBER 2023 TIME: 8:00-10:00 AM

INSTRUCTIONS TO CANDIDATES

**ALL QUESTIONS IN THE THREE SECTIONS (A, B AND C) ARE
COMPULSORY
DURATION: 2HOURS**

MMUST OBSERVES ZERO TOLERANCE TO EXAMINATION CHEATING

SECTION A: MULTIPLE CHOICE QUESTIONS (MCQs); 20 MARKS

Choose the most appropriate answer

1. Which of the following muscles is an intrinsic tongue muscle?
 - A) geniohyoideus
 - B) stylohyoideus
 - C) transverse muscle
 - D) orbicularis oris
2. Which tooth is meant when we talk about 16?
 - A) Upper right first molar
 - B) Upper left second molar
 - C) Lower left first molar
 - D) Lower right first molar
3. How many roots has a lower molar?
 - A) 3
 - B) 1
 - C) 2
 - D) 4
4. Which of the following structures is not part of the periodontium?
 - A) gingiva
 - B) periodontal ligament
 - C) cementum
 - D) enamel
5. Which of the following muscles is a chewing muscle?
 - A) Pterygoideus medialis
 - B) Orbicularis oris
 - C) Levator cili
 - D) stylohyoideus
6. Which nerve innervates the lower molars?
 - A) N. palatinus
 - B) N. alveolaris inferior
 - C) N. mentalis
 - D) N. infraorbitalis
7. Which germ is considered to be the leading germ in the development of caries?
 - A) Staphylococcus aureus
 - B) Streptococcus mutans
 - C) lactobacillus
 - D) bacteroides forsythius
8. What is the buffer capacity of the saliva ?
 - A) The ability of the saliva to neutralize the pH-level of the saliva after intake of sugar
 - B) The possibility to kill microorganisms
 - C) The ability to increase the PH level of the saliva
 - D) The ability to cover the tooth surface
9. When is a root canal treatment is required ?
 - A) If the hard substance loss of the tooth is more than 60%
 - B) When the caries has reached the pulp chamber
 - C) When there is severe bleeding of the gingiva
 - D) When the caries is below the gingiva level

10. Which of the following bacteria are not involved in the progression of periodontitis?
 - A) Streptococcus mutans
 - B) Bacteroides
 - C) Aggregatibacter actinomycetemcomitans
 - D) Treponema species
11. What does overbite mean??
 - A) A failure in chewing
 - B) The distance of the upper incisors over the lower incisors
 - C) The distance between the upper and lower anterior teeth in a sagittal dimension
 - D) The occlusion of the molars
12. What does Angle class II mean?
 - A) Neutral bite
 - B) Distal bite
 - C) Mesial bite
 - D) Prognathia
13. Which of the following is not a local anesthetic?
 - A) Cocaine
 - B) bupivacaine
 - C) lidocaine
 - D) Amphotericin B
14. What does topical anesthesia mean?
 - A) block
 - B) terminal anesthesia
 - C) superficial anesthesia of the mucosa
 - D) intraligamentary anesthesia
15. Which nerve has to be anesthetized when a lower molar should be extracted ?
 - A) N. buccalis
 - B) N. alveolaris superior
 - C) N. mentalis
 - D) N. infraorbitalis
16. What is an alveolitis?
 - A) Empty socket, dry socket
 - B) Inflammation of the gum
 - C) Pulpitis
 - D) An inflammation of the periodontium
17. What does partial retention of a tooth mean?
 - A) A retention of a tooth in the jaw with an exposed tooth surface
 - B) A relocation of a tooth into another region
 - C) A complicated extraction procedure
 - D) A total retention of the tooth in the sinus
18. Which sign can be considered a sure sign of a fracture of the jaws?
 - A) pain
 - B) crepitation
 - C) dislocation
 - D) abnormal movement
19. What is considered to be a complicated tooth fracture??
 - A) Enamel is involved
 - B) Dentin is involved
 - C) The pulp cavity is exposed
 - D) The gum around the tooth is involved
20. Which of the following tumors of the jaw is considered to be malignant?

- A) Osteosarcoma
- B) Ameloblastoma
- C) Cyst
- D) Odontoma

SECTION B: SHORT ANSWER QUESTIONS (SAQS); 40 MARKS

Answer all the questions

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|---|---------|
| 1. Name the condition for the development of tooth decay! | 4 marks |
| 2. Name bacteria which are responsible for periodontitis! | 6 marks |
| 3. Define malocclusion/misalignment ! | 5 marks |
| 4. State clinical findings for a periodontitis! | 5 marks |
| 5. State healing disorders during and after extraction! | 5 mark |
| 6. What are the characteristics in Angle class II misalignment! | 6 marks |
| 7. Which types of fillings do you know? | 5 mark |
| 8. What do you know as the prevention measures against caries? | 4 marks |

SECTION C: LONG ANSWER QUESTIONS (LAQS); 40 MARKS

Answer all the questions

1. Describe caries as an infectious disease and explain the development of a cavity! Explain the diagnostic procedures to detect cavities, its prevention and treatment possibilities! 20 marks

2. Determine the preparational steps to undertake a tooth extraction! Which indications and contraindication of tooth extractions do you know! Explain which possibilities of local anaesthesia procedures can be used in different areas! 20 marks

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