تنبيه هام

جميع طلاب سنوات النقل المستجدين بكلية طب الاسنان جامعة بنى سويف تم تحديد الابحاث المطلوبه على النحو التالى:

اولا الفرقه الاولى:

مادة التشريح

1. Submandibular duct stone:

2. Define the disease, list its causes.
3. Describe the anatomy of submandibular gland and its duct
4. Illustrate site, relation, nerve and blood supply of submandibular gland.
5. Describe the course of its duct.
6. Where the most common site of stone is in the submandibular duct or parotid duct and mentions the causes.

N.B.: Support your research with diagrams supporting each objective (as possible).

2. Cavernous sinus thrombosis:

1. Define this disease and mention its causes.
2. Describe the anatomy of cavernous sinus. And illustrate site relation , communication and structure within cavernous sinus
3. Describe dangerous area of face and scalp and how can it transport infection to cavernous sinus by direct and indirect pathways.

N.B.: Support your research with diagrams supporting each objective (as possible).

3. tempromandibular joint dislocation:

1. Evaluation of the mechanism and principles of management of tempromandibular joint dislocation.

2. Mention common cause of tempromandibular joint dislocation.

3. Illustrate articular surface, type, ligament support, action and acting muscles of tempromandibular joint.

N.B.: Support your research with diagrams supporting each objective (as possible).

4) Bell's palsy (facial palsy)

1. What cause it and how is it treated.

2. Describe the symptoms of Bell's palsy.

3) Illustrate origin, type of fiber, course and branches of facial nerve.

N.B.: Support your research with diagrams supporting each objective (as possible).

5) Hypoglossal nerve paralysis.

1. Discuss different cause of its injury

2. Site of deviation of the tongue in case of right hypoglossal nerve injury.

3. Illustrate origin, course, relation and branches of hypoglossal nerve.

4. Describe anatomy of ansa cervicalis.

N.B.: Support your research with diagrams supporting each objective (as possible).

6) Cranial nerves that share in supply of the tongue.

1. Enumerate that cranial nerve and mention its supply according if it is sensory or motor.

2. Illustrate site, type of fiber and branches of these cranial nerves.

3. Describe sensory supply of the different parts of the tongue from the root-posterior part and anterior part of the tongue.

4. Describe motor supply of the different muscles of the tongue.

N.B.: Support your research with diagrams supporting each objective (as possible).

7) Nerve and blood supply of the teeth and gum.

1. Illustrate begin, course, end and branches of maxillary artery.

2. Describe arterial and nerve supply of both upper and lower teeth and gum.

3. Illustrate begin, course and branches of maxillary and mandibular nerve.

N.B.: Support your research with diagrams supporting each objective (as possible).

8. Tonsillitis:

1. Define this disease and mention its causes.
2. Describe the anatomy of palatine tonsil and its blood supply.
3. Determine the Waldeyer's Ring of lymphoid tissue.
4. Illustrate the lymph drainage of palatine tonsil.

N.B.: Support your research with diagrams supporting each objective (as possible).

9) Lymphatic drainage of the head and neck.

1. Describe superficial and deep group of lymphatic drainage of the head and neck.

2. Illustrate lymphatic drainage of the tongue according its different parts.

3. Determine the Waldeyer's Ring of lymphoid tissue and discuss its clinical importance.

N.B.: Support your research with diagrams supporting each objective (as possible).

10. Parotid tumor.

1. Illustrate site, relation, structure within parotid gland.

2. Describe nerve supply of parotid gland.

3. discuss type of parotid tumor and how can we differentiate clinically between benign and malignant type.

4. Clarify the course of parotid duct and site of its opening .

5. Where the most common site of stone is in the submandibular duct or parotid duct and mentions the causes.

N.B.: Support your research with diagrams supporting each objective (as possible).

مادة الهيستولوجيا العامه

1) Tongue Ulcers

- **Write a preview about Tongue Ulcers with help of the following items:**
  - ✓ **Describe the histological features of the tongue illustrated its surfaces tongue papillae with LM pictures and diagrams.**
  - ✓ **Define Ulcer.**
  - ✓ **Mention the causes of tongues ulcers including both infectious and non-infectious conditions.**
  - ✓ **List the symptoms of tongue ulcer.**
  - ✓ **Mention the complications of tongue ulcers and when they become life threatening.**
  - ✓ **References and sources**

2) Acute Tonsilitis

- **Write a preview about Acute Tonsilitis with help of the following items:**
  - ✓ **Describe the histological features of the palatine showing why they are commonly infected & illustrated with LM pictures and diagrams.**
  - ✓ **Define acute tonsillitis.**
  - ✓ **Mention the causes of acute tonsillitis.**
  - ✓ **List the symptoms & signs of acute tonsillitis.**
  - ✓ **Mention its complications and when it becomes a great danger.**
  - ✓ **Write a brief comment on the lines of treatment.**
  - ✓ **References and sources.**

3) Cervical Lymphadenitis

- **Write a preview about cervical lymphadenitis with help of the following items:**
  - ✓ **Describe the histological structure of the lymph node illustrated with LM pictures and diagrams.**
  - ✓ **Define cervical lymphadenitis.**
  - ✓ **Illustrate the epidemiology of cervical lymphadenitis.**
  - ✓ **Mention the causes of cervical lymphadenitis.**
  - ✓ **List the clinical picture of cervical lymphadenitis.**
  - ✓ **Describe when it is benign and when it represents a major health problem.**
  - ✓ **References and sources.**

4) Salivary Gland Dysfunction

- **Write a preview about Salivary gland Dysfunction with help of the following items:**
  - ✓ **Classify the salivary glands.**
  - ✓ **Describe the general histological structure of the salivary glands illustrated with LM pictures and diagrams.**
  - ✓ **Define salivary gland dysfunction.**
  - ✓ **Classify the major causes of salivary gland dysfunction and mention examples for each category.**
  - ✓ **Describe the clinical picture of one of the main causes of salivary gland dysfunction.**
  - ✓ **References and sources.**

5) Hepatitis

- **Write a preview about Hepatitis with help of the following items:**
  - ✓ **Describe the histological structure of the Liver illustrated with LM pictures and diagrams showing the classic hepatic lobule.**
  - ✓ **Describe the EM picture of hepatocytes.**

- ✓ **Define Hepatitis.**
- ✓ **List the causes of hepatitis " infectious & non-infectious"**
- ✓ **Describe the route of infection of Hepatitis A virus.**
- ✓ **Mention the clinical picture of hepatitis A virus infection.**
- ✓ **Describe the methods of diagnosis of HAV infection.**
- ✓ **List the lines of management of if present!**
- ✓ **References and sources.**

مادة الفيسيولوجى

	Topic	*Objectives*
1	**Autonomic nervous system**	**1. Origin** **2. Differences between somatic and autonomic nervous systems** **3. Functions of autonomic nervous system on: Head & Neck, Thorax, Abdomen & Pelvis** **4. Autonomic receptors** **5. Chemical transmitters of autonomic nervous system**
2	**Erythropoiesis**	**1. Definition and site of Erythropoiesis** **2. Functions of RBCs.** **3. Factors affecting Erythropoiesis.** **4. Hormones affecting Erythropoiesis** **5. Iron, folic acid and B_{12} metabolism**
3	**Anemias**	**1. Definition** **2. Blood indices (MCV, MCH &MCHC)** **3. Classification of anemias** **4. Types of anemia and causes of each type**

		5. Hepcidin role in iron absorption
4	**Hemostasis**	**1. Definition** **2. Mechanisms of hemostasis** **3. Platelet plug formation** **4. Coagulation cascade** **5. Anticoagulants** **6. Abnormalities of hemostasis.**
5	**Mechanical Properties of Cardiac Muscle**	**1. Structure of cardiac muscle.** **2. Excitation contraction coupling of cardiac muscles.** **3. Regulation of contractility (inotropic state) of cardiac myocytes** **4. Cardiac reserve** **5. Heart failure**
6	**Regulation of Arterial Blood Pressure**	**1. Nervous mechanisms that regulate ABP.** **2. Intermediate mechanisms that regulate ABP.** **3. Long term mechanisms that regulate ABP.** **4. Hypertension**
7	**Circulatory Shock**	**1. Types of circulatory shock.** **2. Hemorrhagic shock.** **3. Refractory shock.** **4. Compensatory reactions to shock** **5. Treatment of shock on physiological bases.**
8	**Growth hormone (GH)**	**1. Anatomy of anterior pituitary gland** **2. Functions of GH** **3. Other hormones affecting growth hormone secretion.**

		4. Disorders of GH secretion.
9	**Posterior pituitary hormones**	**1. Anatomy of posterior pituitary gland** **2. Functions of ADH** **3. Control of ADH secretion** **4. Functions of oxytocin**
10	**Thyroid hormones**	**1. Synthesis and secretion of thyroid hormone** **2. Functions of thyroid hormones** **3. Control of thyroid hormone secretion** **4. Disorders of thyroid gland**
11	**Calcium hemostasis**	**1. Plasma calcium levels** **2. Types of bone cells** **3. Function of PTH** **4. Functions of calcitonin** **5. Function of vit D3**
12	**Aldosterone**	**1. Anatomy of Adrenal gland** **2. Functions of aldosterone** **3. Control of aldosterone secretion** **4. Disorders of adrenal cortex secretion**
13	**Glucocorticoid hormones**	**1. Anatomy of Adrenal gland** **2. Functions of Glucocorticoid hormones** **3. Control of Glucocorticoid hormone** **4. Disorders of adrenal cortex secretion**
14	**Pancreas**	**1. Anatomy of pancreas** **2. Functions of insulin** **3. Function of glucagon secretion** **4. Diabetes mellitus** **5. Other hormones affecting glucose homeostasis**

15	**Juxta-glomerular apparatus**	**1. Structure & types of nephrons.** **2. Juxta-glomerular apparatus.** **3. Renin angiotensin system** **4. Regulation of renal blood flow**
16	**GFR**	**1. Glomerular membrane** **2. Normal GFR** **3. Measurement of GFR** **4. Control of GFR** **5. Factors affecting GFR**
17	**Sodium handling by renal tubules**	**1. Histological structure of nephrons** **2. Na^+ Reabsorption in the Different Segments of the Renal Tubule** **3. Bartter's Syndrome** **4. Regulation of Na^+ Excretion**
18	**Neuromuscular transmission**	**1. Physiological anatomy of neuromuscular junction** **2. Events of neuromuscular junction transmission** **3. Properties of neuromuscular junction** **4. Acetylcholine.** **5. Myasthenia Gravis**
19	**Molecular Mechanism of Muscle Contraction**	**1. Types of muscles proteins** **2. Sarcomere** **3. Steps of contractile response** **4. Types of muscle contraction** **5. Factors affection muscle contraction**
20	**Surfactant**	**1. Chemical structure of surfactant** **2. Secretion of surfactant** **3. Functions of Surfactant** **4. Conditions causing surfactant deficiency** **5. Lung volumes and capacities.**

21	**Intrapleural Pressure (IPP)**	**1. Causes of negative IPP** **2. Measurement of IPP** **3. Changes in IPP** **4. Functions of IPP** **5. Pneumothorax**
22	**Oxygen and CO_2Transport by the Blood**	**1. Forms of Oxygen in blood** **2. Oxyhemoglobin dissociation curve** **3. Factors affecting oxyhemoglobin dissociation curve** **4. Forms of CO2 in blood** **5. Chloride shift phenomenon.**
23	**Respiratory Centers**	**1. Physiological anatomy of respiratory centers** **2. Nervous connections of respiratory centers** **3. Functions of respiratory centers** **4. Respiratory muscles** **5. Genesis of rhythmic respiration**
24	**Hypoxia and Cyanosis**	**1. Definitions** **2. Types and Causes of hypoxia** **3. Cyanosis** **4. Oxygen therapy in hypoxia**
25	**Resting membrane potential and Action potential**	**1. Causes of RMP** **2. Phases and ionic bases of AP** **3. All or non-low** **4. Excitability changes during AP** **5. Electrotonus**

1- Favism .

Objectives

● know what is favism .

●determine the enzyme deficient in this disease and its importance.

●Know the mechanism responsible for all disease manifestations.

●Determine the disease severity.

●Know how to treat this disease.

2- Von Gierke's Disease.

Objectives

● identify this diease and its prevalence.

● Explain the cause of the disease.

● Know the mechanism that is responsible for all manifestations.

● Illustrate how this disease is treated.

3- Hypoglycemia .

Objectives

1. Mention the normal fasting and 2 hr postprandial blood glucose levels.

2. Enumerate the sources of blood glucose.

3. Explain how plasma glucose concentration is maintained within narrow limits in the fed and fasting states.

4. Define hypoglycemia.

5. Mention the symptoms and signs of hypoglycemia.

6. Discuss the causes of fasting and postprandial hypoglycemia.

4- Hyperammonemia

Objectives

● Illustrate how urea cycle is the main way for disposal of ammonia.

● Define hyperammonemia according to its plasma level.

- **Enumerate types of hyperammonemia.**
- **Illustrate mechanism of ammonia toxicity.**
- **Mention how hyperammonemia can be treated.**

5- Hypercholesterolemia

Objectives

1. **Appreciate the important functions of cholesterol.**
2. **Know how cholesterol is catabolized and excreted.**
3. **Recall the normal plasma levels of cholesterol.**
4. **List the causes of hypercholesterolemia**
5. **mention cardiovascular risks related to hypercholesterolemia.**

6- Fatty liver

Objectives

1. **Define hepatic steatosis.**
2. **Recall the different causes of fatty liver.**
3. **Define lipotropic factors.**
4. **List the lipotropic factors.**

7- Diabetes mellitus

Objectives

1. **Illustrate the structure of insulin.**
2. **Indicate the mechanism of synthesis, secretion and catabolism.**
3. **Illustrate the mechanism of insulin action.**
4. **List the effects of insulin.**
5. **Understand insulin resistance and the metabolic syndrome.**
6. **Define diabetes mellitus and classify its various types.**
7. **List the metabolic changes that occur in diabetes.**
8. **List the complications of diabetes.**
9. **Understand the biochemical basis of the diabetic complications.**

10. Identify the methods of diagnosis of diabetes.

11. Indicate the major strategies in treatment of diabetes

8- Jaundice

Objectives

1- Know how and where bilirubin is derived from heme and how it is handled in the body

2- Recall the types and normal levels of blood bilirubin.

3- Differentiate between direct and indirect Bilirubin.

4- Understand the nature of jaundice and appreciate how to approach determining its cause in a patient.

9- Gout

Objectives

1- Define gout

2- Enumerate types of gout and their manifestations.

3- Mention causes of gout.

4- Mention treatment of gout.

10- Fat soluble vitamins (A , D , K , E).

Objectives

1. Mention functios of vitamin A .

2. Mention causes oa vitamin A deficiency.

3. Describe the biochemical basis of its deficiency manifestations.

4. Enumerate functions of vitamin D

5. Mention causes of vitamin D deficiency and its maifestations.

6. Enumerate function of vitamin E.

7. Mention causes and manifestations of vitamin E deficiency.

8. Enumerate function of vitamin K.

9. Mention causes and manifestations of vitamin K deficiency.

11- Ca & Vitamin D metabolism.

Objectives

1. Identify diatery source of calcium and vitamin D .

2. Illustrate vitamin D metabolism (activation & inactivation)

3. Enumerate functions of vitamin D.

4. Mention causes of vitamin D deficiency.

5. Describe the biochemical basis of vitamin D deficiency manifestations.

6. Mention normal level of ca in blood.

7. Enumerate manifestations of ca deficiency in the body.

8. Describe ca metabolism and excretion from the body.

12- Pernicious anemia

Objectives

1. Define prenicios anemia.

2. Enumerate causes of prenicios anemia.

3. Enumerate functions of vitamin B12 & folic acid.

4. Describe folate trap which occur with vitamin B 12 deficiency.

5. State the recommended daily allowances for vitamin B 12 and folic acid.

6. Describe the biochemical basis of the manifestations of pernicious anemia.

7. Mention treatment of pernicious anemia.

مادة خواص المواد

د.هبه شلبى

1.Chitosan Nano-powder Modified GIC

2. Fiber Reinforced GIC

3.Condensable / Self Hardening GIC

4.TiO2 Nano-powder Modified GIC

5.Amalgomer

6.Proline Glass Ionomer Cement

7.CPP–ACP in Glass Ionomer Cements

8.zirconomer

9.Nano Bioceramic Impregnated GIC

10.Calcium Aluminate GIC (Ceramir)

11.Chlorhexidine Incorporation In GIC Cements

12. Propolis added to GICs

13.Salvadora persica (miswak) GICs

14. HAp reinforced GIC

15.Amino acid modified GIC N vinylpyrrolidone

16.Triclosan modified GIC

17.Turmeric modified GIC

18. Silver (Ag) doped calcium phosphate particles

19.Ginger modified GIC

20.Ketac nano GIC

21.Thera Cal.LC(BISCO) is a dental liner.

22.ACTIVA (Pulpdent) 'filling / liner'.Bioactive Dental Cements

23.BioCem (NuSmile) exact as ACTIVA cement.

24.Biodentine

25. MTA

26.Resin matrix ceramic (resin nano ceramic

27.Poly crystalline ceramic (Alumina)

28.Poly crystalline ceramic (stabilized zirconia)

29.Poly crystalline ceramic (alumina tough zirconia)

30.hybrid ceramic

31.castable ceramic

32.feldspathic porcelain

33.lithium disilicate

34.Emax

35.Lava ultimate.

36.Enamic

37.vita mark 2

38.superinity

39.Celtra duo

40.Empress

41- Antibacterial denture base

42- High impact acrylic denture base

43-Poured type acrylic denture base

44- Maxillofacial obturate materials

45-Cleft palate obturate materials

46-Tissue regeneration materials

47-Flexible denture base material

48-microwave cured acrylic resin

49-light cured acrylic resin

50- recent advances in alginate impression

51-Zirconia implant

52- Titanium implant

53- PEEK Implant

مادة التشريح الوصفي

د. اسماء سرى

1-Anatomic variations in morphology and pulp cavity of permanent maxillary incisors

2- Anatomic variations in morphology and pulp cavity of permanent mandibular incisors

3- Anatomic variations in morphology and pulp cavity of permanent canines

4- Anatomic variations in morphology and pulp cavity of maxillary premolars

5- Anatomic variations in morphology and pulp cavity of mandibular premolars

6- Anatomic variations in morphology and pulp cavity of permanent maxillary molars

7- Anatomic variations in morphology and pulp cavity of permanent mandibular molars

8- The effect of premature loss of deciduous teeth on the development of dentition and how to manage

9- Significance of contact and contour of teeth in dentistry and what happens if they are not be restored or restored in wrong way (clinical applications)

10-Factors affecting occlusal development (general and local factors)

ثانيا الابحاث الخاصه بطلاب الفرقه الثانيه:

مادة التيجان و الجسور

1. Errors in impression making (Dr.Mazen)

ILOS

a. Various impression materials available for use in fixed prosthodontics and the physical characteristics of each.

b. Clinical situations where use of different impression materials may be indicated.

c. The handling properties of impression materials and how these may affect the setting time and the accuracy.

d. Possible errors in impression taking. (Figures)

e. Recent impression materials and techniques.

2. Temporary restorations benefits, use, and care

ILOS

a. The requirements of a fixed interim restoration.

b. The indications for a fixed interim restoration.

c. Fabrication techniques of interim restorations. (Figures)

d. The properties, handling, classifications, and indications for all the dental materials employed in the fabrication of direct and indirect interim restorations.

e. Modification of temporary restorations.

3. Clinical complications in fixed prosthodontics

ILOS

a. Biologic failure. (caries-PD disease-pulp injury)

b. Mechanical failure. (fracture-dislodgement)

c. Esthetic failure. (shade-contour-margins)

4. Techniques for evaluating a fixed prosthesis

ILOS

a. Seating and marginal fit.

b. Retention and stability.

c. Occlusion.

d. Contour of pontics.

e. Connectors.

f. Esthetics.

g. Radiographic checking.

5. Current ceramic materials with clinical applications

ILOS

a. Introduction to all ceramic crowns.

b. Advantages and disadvantages.

c. Different types of all-ceramic crowns.

d. Indications and contra-indications.

e. Steps in the preparation of all ceramic crowns.

f. Recent ceramic materials and techniques.

6. Cementation protocol for different ceramic materials

ILOS

a. The principle of cementation. Understanding of the abutment-prosthesis interface, manipulation of the cement retention and dislodgement of the prosthesis.

b. Manipulation of different cements.

c. Strengths and weaknesses of resin cement in terms of its application in luting fixed prostheses.

7. Cordless and cord techniques of gingival retraction and adverse effects (Dr. Mustafa Hussein)

ILOS

a. Methods available for tissue retraction and moisture/blood control.

b. Retraction and hemostasis in tissue control.

c. Correct handling of the impression, with emphasis on the pouring of the cast and disinfection.

8. Different preparation designs for all ceramic restorations (full coverage and partial coverage)

ILOS

a. Advantages, disadvantages, indications and contraindications of partial\full coverage restorations.

b. Different types of partial\full coverage restorations.

c. Preparation features that influence the character and the prognosis of partial\full coverage restorations.

9. Mechanical and biological principles may have opposite perspectives in fixed prosthodontics, how to balance the benefits and drawbacks of these two principles to make a successful restoration

ILOS

a. The importance of biological, mechanical and esthetic considerations to achieve optimum fixed restoration.

b. The principles of path of insertion, preservation of tooth structure and periodontium, marginal integrity, and structural durability.

10. Different alternatives methods to casting and investing procedures

(Dr.Aly badr)

ILOS

a. Capillary technology.

b. Cad-Cam.

c. Sintered powdered technology.

d. Rapid prototyping.

11. The new esthetic materials is an important parameter in fixed prosthodontics

ILOS

a. Rationale for esthetic diagnosis inclusive of patient attitudes.

b. The importance of facial convexities, tooth proportions and symmetry on esthetic success.

c. Differences in patient gender, age and personality.

12. Laboratory procedures to obtain accurate restorations

ILOS

a. Various types of wax used in the fixed restorative area.

b. The wax-additive and wax-subtractive methods of wax pattern fabrication.

c. The criteria for sprue attachment site selection.

d. Sprue size (diameter) and length.

e. Different types of investment materials.

f. Ideal requirements of investment materials.

g. Different types of expansion that occurs during investing procedures.

h. Investing techniques.

i. What is occurring within the casting ring during burnout?

j. Preparation of the broken-arm casting machine for use.

k. The correct use of both gas-and-air, and gas-and-oxygen torches.

13. Alloys selection in different clinical situations

ILOS

a. Chemistry of metal-ceramic alloy.

b. Terminology and classification.

c. Requirements of alloys for porcelain bonding.

d. Bonding mechanism.

e. Metal-ceramics bond failure.

f. Dental alloys classification based on mechanical properties, noble metal content, application.

g. Metal casting shrinkage.

h. Potential hazard of processing Ni-Cr-Be alloys to the dental laboratory technician.

14. Beneficial tools in fixed prosthodontics

ILOS

a. Types, classification, and use of instruments in fixed prosthodontics.

b. Recent instruments and devices.

15. Marginal adaptation vs esthetics for various dental ceramic restorations

ILOS

a. The types marginal finish lines and connect them to newly introduced ceramic materials on dental market.

b. The effect of different margins on the final esthetics of ceramic restorations.

c. The marginal fit of different recently introduced dental ceramics to the dental field.

16. Modern approach to technology of fixed prosthodontics (lab workflow)

ILOS

a. The new techniques and recent digitizing methods introduced in the lab workflow.

b. The recent technologies introduced to the market and expected for the future.

17. Recently introduced materials for fixed prosthodontic field (properties and indications of use) with evidence based

ILOS

a. The field of Fixed prosthodontics is always full of newly introduced materials for many purposes, ex, (PEEK, different dental ceramic generations, composites)

18. Dental photography analyzing, planning and documentation

ILOS

a. Principles of professional dental photography, types of cameras

b. Analyzing. planning and the eligibility for documentation.

19. The clinician faces a lot of challenge to achieve optimum PFM restoration

ILOS

a. Ideal prep. For different PFM restoration

b. Construction techniques (old and new in details)

c. Factors affecting PFM construction

d. Cementation for different restoration

e. Failure and repair

20. CAD/CAM the digital innovation over the last years faced many change in its philosophy and component

ILOS

a. Data acquisition.

b. Software.

c. Processing machine.

d. Materials used.

21. Nowadays laminate veneer has been evolved rapidly through materials, preparation and cementation discuss

ILOS

a. New concept in preparation.

b. Old vs. new preparation.

c. Materials used and its indication and limitation.

d. Cementation procedure of different materials.

e. Failure and repair.

22. Challenges facing restoration of endodontically treated teeth

ILOS

a. The reasons for the use of post and cores and understand the effect they have on the strength of remaining tooth structure.

b. The indications for a cast post and core.

c. Potential complications associated with post and core preparation.

d. The implications of ferrule effect in the restoration of endodontically treated teeth. (Figures)

e. Fabrication techniques of post and core.

f. Preparation features required for predictable success in cast post and core restorations.

g. The impression for the indirect pattern fabrication of endodontically treated teeth.

h. Recent esthetic posts.

i. Different alternatives for post and core restorations. (Figures)

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***You should use the Egyptian knowledge bank or internet for references not the university book.**

الباثولوجيا العامه

1- **Osteomyelitis**
2- **Thrombosis & embolism**
3- **Acute inflammation**
4- **Benign epithelial tumors**
5- **Malignant tumors**
6- **Locally malignant tumors**
7- **Irreversible cell injury**

الميكروبيولوجى

1- **Antimicribial resistance**
2- **Sterilization in dental clinics**
3- **Streptococcus mutans**
4- **Tuberculosis oral infections**
5- **Herpes virus**
6- **Hepatitis virus**
7- **Normal flora of the oral cavity**
8- **Oral candidiasis**
9- **Anaphylaxis**
10- **Precautions of infection control in dental clinics during Covid pandemic**

العلاج التحفظى

The review article: will be in any of the following subjects 1- Recent advances AND modifications in composite

2- Adhesive systems and the modifications

3- Recent advances AND modifications of Glass ionomer

4-Carious and non-carious lesions

5- Recent advances AND modifications of intermediary materials

All heading (Times New Roman) with font= 14 & bold

and the body (Calibri) With font=12, space =1.5

The article will include the following

1-Title name.

2-Abstract about 5-10 lines

3-Introduction about 15-30 lines. 3-6 paragraphs

4- Body of the review.6-12 pages

5- Conclusion about 5- 10 lines.

6- 6-10 References. Listed using Vancouver style (Journal citation)

Example 1- Mony B, Ebenezar R, Ghani M F, Narayanan A, Anand S, Mohan AG. Effect of Chicken Egg Shell Powder Solution on Early Enamel Carious Lesions: An Invitro Preliminary Study. J Clinic Diagn Res. 2015; 9(3): ZC30-ZC32

2- Jacobsen T, Söderhold KJ. Some effects of water on dentin bonding. Dent Mater. 1995; 11(2): 132–6.

الطالب له الحق في اختيار اي من هذه المواضيع يقوم بتحضيرها منفردا او مع مجموعه علي ان لايزيد عدد المجموعه الواحده عن خمسه طلاب. 31-5 -2020 هام جدا: اخر معاد لاستلام الابحاث الاحد الموافق ظهرا . 2الساعه

مادة الاقرابازين

5 students in each research

- **Not less than 5 pages 1500 words (font 12)**

1- Anerobic infections

د ماري اسكندر

- **List drugs used in treatment of anerobic infections**
- **Describe in details pharmacokinetic and pharmacodynamics of 3 of these drugs**

2- Corticosteroids

د ماري جرجس

- **List corticosteroid preparations**
- **Describe in details pharmacokinetic and pharmacodynamics of corticosteroids**

3- Local aesthesia

د اسماء محمد

- **Classify local aesthesia**
- **Describe in details pharmacokinetic and pharmacodynamics of local anesthetics**

4- Antiviral drugs

د شريف فيصل

- **List drugs used in treatment of herpes simplex**
- **Describe in details pharmacokinetic and pharmacodynamics of these drugs**

5- Osteoporosis

د الشيماء عبدالمهيمن

- **List drugs used in treatment of osteoporosis**
- **Mention the mechanism of action of each drug**
- **Describe in details pharmacokinetic and pharmacodynamics of one drug that may cause osteonecrosis of the jaw**

مادة الاستعاضه الصناعيه

Second year research topics for removable prosthodontics.

1- **Design considerations in partial denture.** **ا. د احمد فتح الله**

2- **Esthetic restoration in completely edentulous patients.** **ا.د محمد عبد الحكيم**

3- **Different types and forms of partial dentures.** **د. شاهيناز سيد**

4- **How does each step of complete denture construction affect retention and stability and hence the final outcome of complete denture.** **د. سحر قرطام**

5- **Application of mandibular movements on denture construction.** **ا. د. محمد عبد الحكيم**

مادة بيولوجيا الفم

1- **Effect of laser on hard and soft oral tissues.** **د .اسماء سرى**

2- **Histological effect of bleaching materials on hard tooth structures.**

3- **Effect of fluoride components on enamel remineralization.**

4- **Dentin hypersensitivity and the effect of different desensitizing agents on hard tooth structures.**

5- **Histological effect of pulp capping materials (which used after pulp exposure) on pulp and dentin formation.**

6- **Dental pulp stones (types, causes and drug induced).**

7- **Drugs lead to gingival hyperplasia.**

8- **Histological effect of orthodontic tooth movement on alveolar bone.**

9- **New classification of cementum and types of repair developed in case of root resorption happened.**

10- **Formative cells in hard and soft oral tissues (origin, function and fate).**

11- **Resorptive cells in hard and soft oral tissues (origin, function and fate).**

12- **Neural crest cells (development, function, derivatives and fate).**

13- **Comparison between periodontal tissue and peri-implant tissue.**

14- Dental anomaly pattern associated with tooth development.

ثالثا الفرقه الثالثه:

بيان بأسماء الأبحاث المطلوب عملها من طلاب الفرقه الثالثه المسجلين بالمقررات الأساسيه فى فصلهم الدراسى الثانى 2019-2020

Course name	Research Topic
General surgery	1. Haemorrhage 2. Hypovolemic shock 3. Septic shock 4. Antibiotics 5. Bleeding disorders 6. Haemostasis 7. Mandibular fractures 8. Maxillary farctures 9. Jaw swelling 10. Anaesthesia in dental surgery Write 5 papers maximum with font size 14 headlines and 12 for the paragraphs including the following: • Definition • Introduction • Aim of work • Review article • Conclusion
ENT	1- Sinusitis of odontogenic origin 2- TMJ disorders 3- Oroantral communication Write 5 papers maximum with font size 14 headlines and 12 for the paragraphs (Times New Roman)

Oral pathology	**1. Clinical and histopathological differential diagnosis of odontogenic neoplasms** **2. Clinical and histopathological differential diagnosis of benign, premalignant and malignant epithelial neoplasms** **3. clinical and histopathological differential diagnosis of benign and malignant connective tissue neoplasms** **4. clinical and histopathological differential diagnosis of salivary glands neoplasms**
Orthodontic	**1. The use of CBCT in orthodontic diagnosis and treatment planning** **2. The use of aligners in orthodontics** **3. Class II malocclusion, etiology, diagnosis and treatment** **4. Class III malocclusion, etiology, diagnosis and treatment** **5. Self-ligating brackets** **6. Molar Distalization** **7. Extraction Vs Non extraction orthodontic treatment** **8. Iatrogenic Effects of Orthodontic Treatment** **9. Esthetic appliances in orthodontics**

	10. The use of CBCT in orthodontic diagnosis and treatment planning **11. The use of aligners in orthodontics** **12. Class II malocclusion, etiology, diagnosis and treatment** **13. Class III malocclusion, etiology, diagnosis and treatment** **14. Self-ligating brackets** **15. Molar Distalization** **16. Extraction Vs Nonextraction orthodontic treatment** **17. Iatrogenic Effects of Orthodontic Treatment** **18. Esthetic appliances in orthodontics** **19. Class III malocclusion, etiology, diagnosis and treatment** **20. Class II malocclusion, etiology, diagnosis and treatment** **21. The use of aligners in orthodontics** **22. The use of CBCT in orthodontic diagnosis and treatment planning**
Ophthalmology	• **Dental sepsis and eye disease**
Venereology	**1. Dentist role in prevention of HIV infection** **2. Dentist role in prevention of bacterial STIs** **Mention the following:** • **Causative organism** • **Mode of transmission** • **Clinical and lab diagnosis** • **Preventive measures**

Dermatology	• **Differential diagnosis of common causes of oral ulcers**
INTERNAL MEDICINE	• **Hypertension (group 1, group14)** • **Definition** • **Causes** • **Grades** • **Clinical picture** • **Complications** • **Investigations** • **Treatment** • **Hypertensive emergencies** • • **Diabetes Mellitus (group 2, group 15)** • **Prevalence** • **Diagnosis** • **Classification** • **Inheritance** • **Metabolic disturbances in diabetes mellitus** • **Causes and pathogenesis of diabetic complications** • **Clinical picture** • **Complications of diabetes mellitus** • **Investigations** • **Treatment** • • • • • • • • **Rheumatic fever (group 3)** • **Definition** • **Etiology** • **Predisposing factors**

	• **Pathology** • **Clinical picture** • **Investigations** • **Differential diagnosis** • **Treatment** • **Prognosis** • • **Infective endocarditis (group 4, group 16)** • **Etiology** • **Pathology** • **pathogenesis** • **Clinical picture** • **Investigations** • **Diagnostic criteria** • **Treatment** • **Complications** • **Prevention** • • **Bronchial asthma (group 5, group 17)** • **Definition** • **Causes and types** • **Pathogenesis** • **Triggers of asthma** • **Clinical picture** • **Complications** • **Investigations** • **Classification of severity of bronchial asthma** • **Treatment** • • **Hypothyroidism (group 6)** • **Causes** • **Clinical picture** • **Investigations** • **Differential diagnosis** • **Complications** • **Treatment** • • **Thyrotoxicosis (group 7, group 18)** • **Causes** • **Clinical picture**

	• **Diagnosis** • **Differential diagnosis** • **Treatment** • • **Hepatitis C virus (group 8, group 19)** • **Mode of infection** • **Incubation period** • **Chronicity** • **Malignancy** • **Carriers** • **Markers** • **Vaccine** • **Pathology** • **Clinical picture** • **Complications** • **Investigations** • **Treatment** • • • **Liver cirrhosis (group 9, group 20)** • **Definition** • **Pathogenesis** • **Causes** • **Clinical picture** • **Investigations** • **Treatment** • **Classification** • • **Peptic ulcer disease (group 10, group 21)** • **Definition** • **Etiology** • **pathogenesis** • **Clinical picture** • **Complications** • **Investigations** • **Treatment** • • **Pneumonia (group 11)** • **Definition** • **Predisposing factors**

	• **Classification** • **Community acquired pneumonia** • **Pneumonia in immunocompromised patients** • **Hospital acquired pneumonia** • • • • • • **Pulmonary tuberculosis (group 12)** • **Definition** • **Types of mycobacteria and pathology** • **Factors increasing the risk of tuberculosis** • **Entry of the organism** • **The reaction of the body** • **Clinical picture** • **Complications** • **Investigations** • **Differential diagnosis** • **Treatment** • • **Anemia (group 13, group 22)** • **Definition** • **Classification** • **Iron deficiency anemia** • **Megaloblastic anemia** • **Haemolytic anemias** • **Thalassemias** • **Sickle cell anemia** • **G6PD deficiency** • **AIHA** • **Aplastic anemia** • **Approach to a case of anemia** •

مع تمنياتنا لجميع ابنائنا الطلاب بالتوفيق والنجاح

أ.د وكيل الكليه لشؤون الطلاب **أ.د عميد الكليه**

ا.د / احمد فتح الله شوقى **أ.د / مجدى محمد على**