POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1990

Date: 5th September, 1990 Time: 9.00a.m. - 12.00 noon

PAPER I

Answer Part A & Part B in Separate Books
Answer 2 questions only from each part.

PART A - (GENERAL ANATOMY)

1. Write an account of the distribution of lymphatic tissues in, and the lymphatic drainage of the oral cavity including the teeth and tongue.

2. Describe the external morphology, light and electron microscopic appearance and the innervation of the parotid gland.

3. Write an account of the inlet of the thorax.

PART B - (DENTAL ANATOMY AND DENTAL HISTOLOGY)

1. Describe the histological structure of the condyle of the mandible in a young adult. What age changes occur in this structure.

2. What are the factors involved in the provision of space, in the transition from the deciduous to the permanent dentitions.

3. How is enamel structure related to the adhesion of modern restorative materials to its surface and to cut edges?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1990

Date: 5th September, 1990 Time: 2.00 p.m. - 5.00 p.m.

PAPER 11

Answer Part A & Part B in Separate Books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

1. What is meant by "polyuria"? Give the causes of polyuria and BRIEFLY the physiological basis of polyuria in each of these conditions.

2. Describe the physiological mechanisms, which regulate the circulating blood volume and its osmolality.

3. Write BRIEFLY on each of the following:

   i. The first and second heart sounds
   ii. Intrapleural pressure
   iii. The corneal reflex

PART B - (PATHOLOGY)

1. Describe the pathogenesis of tissue injury resulting from acute rheumatic infection. Briefly discuss its causation giving reasons.

2. Write notes on the differences between

   i. Latent cancer and dormant cancer.

   ii. A teratoma and an embryonic tumor.

   iii. The microscopic appearances of a benign tumor and a malignant tumor.

3. State the different ways by which pus formation could occur and describe the tissue changes that lead to pus formation. Discuss the sequelae and complications of these changes.

POSTGRADUATE INSTIUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1991

Date: 10th September, 1991 Time: 9.00 a.m.- 12.00 noon

PAPER 1

Answer Part A & Part B in Separate Books.
Answer 2 questions only from each part.

PART A (GENERAL ANATOMY)

1. Write an account of the course, distribution and central connections of the mandibular division of the trigerninal nerve.

2. Write an account of the arrangement, openings, innervation and development of the paranasal air sinuses.

3. Write an account, of the arrangement of the deep fascia of the Head and Neck region including the fascial spaces and their clinical significance.

PART B - (DENTAL ANATOMY AND DENTAL HISTOLOGY)

1. What are the differences between deciduous and permanent teeth? Discuss the clinical significance of these differences.

2. Describe the age changes that occur in the permanent dentition.

3. Give an account of the structure of the periodontal ligament. How does the ligament adapt to orthodontic movement of teeth?

POSTGRADUTE INSTITUTE OF MEDICINE
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MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1991

Date: 11th September, 1991 Time: 9.00a.m. -12.00 noon

PAPER II

Answer Part A &Part Bin Separate Books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

1. What is cardiac output? Give a BRIEF account of the factors regulating cardiac output.

2. Write an account of the formation, circulation, absorption and functions or-cerebrospinal fluid

3. Comment BRIRFLY on Coach of the following:

   (a) Iron absorption

   (b) Functions of calcium in the body

   (c) Bilirubin metabolisms

PART B - (PATHOLOGY)

1.

   1.1 List 5 different varieties of fluid that could accumulate in tissues under pathological conditions.

   1.2 Explain the mechanisms leading to such fluid accumulation and describe the pathological changes that could arise in such tissues.

2. List the common causes of arterial obstruction and discuss the pathological changes that could result from such obstruction.

3. List 3 varieties of fungal infections. Describe the pathological changes produced by any Two (2) of them.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1992

Date: 1st September, 1992 Time: 9.00 a.m.-12.00 noon

PAPER I

Answer part A & Part B in Separate Books.
Answer 2 questions only from each part.

PART A

1. Write an account of the attachments, relations and actions of the lateral pterygoid muscle.

2. Write an account of the submandibular salivary gland including its microscopic structure. Add a note on the development of the gland and its duct.

3. Write an account of the lateral wall of the nose.

PART B

1. Give an account of the image seen in an intra-oral radiograph of the lower molar region in a child of 12 years. How would this differ from the appearance in an adult of 20 years.

2. Describe the development of the upper lips and palate. Discuss the theories to account for the production of cleft palate.

3. Give an account of the form and histological structure of the pulp of the upper first premolar. How does the histology of the pulp change with age?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1992

Date: 2nd September, 1992 Time: 9.00 a.m.-12.00 noon

PAPER II

Answer Part A & Part B in Separate Books.
Answer only two questions from each part.

PART A - (PHYSIOLOGY)

1. Give an account of the physiology of thermoregulation in the healthy adult. Write BRIEFLY on fever, heat exhaustion and heat stroke.

2. What is meant by hypoxaemia ? Discuss the causes and effects of hypoxaemia.

3. Write BRIEFLY on each of the following:

   (i) a balanced diet

   (ii) 1, 25 dihydroxychole calciferol

   (iii) Biochemical, hematological and clinical features of iron deficiency anemia

PART B - (PATHOLOGY)

1. Discuss the causes, effects and complications of Venous Embolism.

2. Write notes on

   2.1 Tumoral calcinosis
   2.2 Pathological mechanisms responsible for necrosis
   2.3 Oneogenes

3. Discuss the complications and sequelae of Chronic Inflammation.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1993

Date: 14th September, 1993 Time 9.00 a.m. - 12.00 noon

PAPER I

Answer part A & Part B in separate Books.
Answer 2 questions only from each part.
Each question in Part B to be answered in separate Books

PART A - (GENERAL ANATOMY)

1. Describe the anatomy, development and movements of the temporo-mandibular joint.
   How is its stability maintained?

2. Give an account of the maxillary division of the trigeminal nerve and its branches.

3. Give an account of the superior mediastinum of the thorax.

PART B - (DENTAL ANATOMY, HISTOLOGY, ORAL PHYSIOLOGY & BIOCHEMISTRY)

1. Describe briefly the role of cartilage in the growth and development of the skull and mandible. What factors control this process?

2. Explain how (a) saliva (b) oro-facial musculature and (c) reflexes elicitable from the mouth contribute to the retention, stability and efficiency of full dentures.

3. Discuss the theories to account for the pain that often follows when dentine is exposed in the mouth. Devise a rational method of treatment of chronic hypersensitive dentine based on these theories.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1993

Date: 14th September, 1993 Time : 2.00 p.m. - 5.00 p.m.

PAPER II

Answer Part A & Part B in separate Books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

1. Write an essay on the functions of the skin.

2. Give an account of the physiology and consequences of vomiting.

3. Write brief explanatory notes on

   3.1 insulin

   3.2 thrombocytopaenia

   3.3. Vitamin A

PART B - (PATHOLOGY)

1. Write an account on wound infections.

2. Write a brief account on chemical carcinogenesis.

3. Write notes on :

   3.1. Tuberculoid granulomas and list four causes which give rise to them.

   3.2. Sequelae and complications of a haematoma.

   3.3. Delay in healing of fractures.

POSTGRADUATE INSTITUE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1994

Date: - 6th September, 1994 Time :- 9.00 a.m. - 12.00 noon

PAPER I

Answer Part A & Part B in separate books.
Answer 2 questions only from each part.

PART A - (GENERAL ANATOMY)

1. Give an account of the central connections, course, relations and distribution of the hypoglossal nerve.

2. Describe the attachments of the scalenus anterior muscle and give its relations.

3. Describe the course, distribution and clinical anatomy of the maxillary artery. Add a note on its development.

PART B - (DENTAL ANATOMY, HISTOLOGY, ORAL PHYSIOLOGY AND BIOCHEMISTRY)

Each question to be answered in a separate book.

1. Describe the structure of the periodontal ligament.
   How does the periodontal ligament help in tooth eruption ?

2. A few days after the insertion of a deep composite restoration, a patient complained of severe throbbing pain, which became worse when, laid down flat.

   Describe the histological and physiological features of the dentinal and pulpal tissues that would have contributed to the onset of above symptoms.

3. Give an account of the postnatal growth of the mandible.
   Explain briefly how disordered growth of this bone can lead to facial deformity.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1994

Date: - 6th September, 1994 Time: 2.00 p.m. - 5.00 p.m.

PAPER II

Answer Part A & Part B in separate books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

1. Discuss physiological and biochemical aspects of bone formation, growth and resorption.

2. Discuss the physiology of swallowing with brief references to disturbances of the swallowing mechanism.

3. Write brief explanatory notes on:

   3.1. Bilirubin catabolism
   3.2. Clinical features of acoustic neuroma
   3.3. Protein digestion and absorption

PART B - (PATHOLOGY)

1. List the causes that lead to an increase of fibrous tissue in an organ and indicate its pathogenesis.

   Discuss the sequelae and complications, which may arise as a result of such an increase of fibrous tissue.

2.

   2.1. List the different varieties of necrosis.

   2.2. Describe the macroscopic and microscopic features of necrotic tissue.

   2.3. Discuss briefly the further changes that could take place in necrotic tissue.

3. Write an essay on the role of viruses in human neoplasia.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DEGTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1995

Date: - 5th September, 1995 Time: - 9.00 a.m. 12.00 noon

PAPER I

Answer Part A and Part B in separate books.
Answer 2 questions only from each part.

PART A - (GENERAL ANATOMY)

1. Write an account of the soft palate including its functions and development.

2. Give an account of the course, relations and distribution of the facial nerve. What are its central connections?

3. Give an account of the course and distribution of the branches of the external carotid artery.

PART B - (DENTAL ANATOMY, HISTOLOGY ORAL PHYSIOLOGY AND BIOCHEMISTRY)

Each question to be answered in a separate book.

1. Describe the macroscopic and radiological appearances of the mandible of a normal eight-year-old child.

2. Give an account of the microscopic features of the oral mucosa. State briefly what macroscopic changes would be observed in states of vitamin deficiency.

3. List the functions of the oral cavity. Compare and contrast the oral functions of a 65-year-old full denture wearer with those of a 25-year-old subject with the full natural dentition.

POSTGRADUATE INSTITUTE OF MEDICINE
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MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1995

Date: 5th September, 1995 Time :- 2.00 p.m. - 5.00 p.m.

PAPER II

Answer Part A and Part B in separate books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

1. How may ventilatory function be assessed in patient awaiting surgery ?

2. Describe the short term and long term compensatory reaction activated by hemorrhage.

3. Write briefly on the significance of the following to the Dental Surgeon: -

   3.1. Growth hormone
   3.2. Referred pain
   3.3. Micronutrients

PART B- (PATHOLOGY)

1. List the oral manifestations of sexually transmitted diseases and describe their histopathological features.

2. What are ?

   2.1. The factors that play a causative role in production of venous thrombosis and indicate how they act.

   2.2. Write an account on the sequelae and complications of venous thrombosis.

3. Write notes on:

   3.1. The similarities and differences between bacteraemia, septicemia and pyaemia.
   3.2. The adverse effects of blood transfusion.

   3.3. The identification of amyloid giving examples.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1996

Date: 3rd September 1996 Time: 9.00a.m. - 12.00 noon

PAPER 1

Answer Part A & Part B in separate books
Answer 2 questions only from each part.
Each question in Part B to be answered in separate books.

PART A - (GENERAL ANATOMY)

1. Describe the arrangement of fascia in the head and neck and discuss its clinical significance.

2. Describe the site and nature of attachment of structures to the mandible. What other structures are in direct contact with the mandible?

3. Give an account of the vagus nerve and its relations in the neck and thorax. What are its branches and their distribution in the neck and thorax?

PART B - (DENTAL ANATOMY & DENTAL HISTOLOGY)

1. How is the structure of the gingiva (including epithelium) related to its functions?

2. Describe the postnatal growth of the middle third of the facial skeleton. Very briefly indicate any clinical anomalies associated with this growth.

3. Write an account on the formation and secretion of saliva. Indicate the clinical consequences of xerostomia.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1996

Date: 3rd September, 1996 Time : 2.00p.m. - 5.00p.m.

PAPER 11

Answer Part A and Part B in separate books
Answer only two questions from each part.

PART A - (PHYSIOLOGY)

1. List and discuss the defence mechanisms that protect the respiratory tract.

2. Discuss the pathophysiology of unilateral deafness, indicating how you would arrive at a diagnosis.

3. Write Brief notes on:

   i) Metabolism and actions of vitamin D

   ii) Diagnosis and investigation of thrombo-cytopaenia

   iii) Functions of the liver

PART B - (PATHOLOGY)

1

1.1. What is Granulomatous disease?

1.2 List five Granulomatous diseases that you may encounter in the head and neck region.

1.3 Describe the pathology of any two of them.

2. Describe briefly the tissue reactions to viruses. Write a note on the diagnosis of viral disease.

3. What is meant by thrombosis? How does a thrombus differ from a post mortem clot? Write an account on the possible end results of thrombosis.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1997

Date: - 2nd September, 1997 Time :- 9.00 a.m. 12.00 noon

PAPER I

Answer Part A & Part B in separate books.
Answer 2 questions only from each part.
Each question in Part B to be answered in separate books.

PART A - (GENERAL ANATOMY)

1. Write an account of the maxillary antrum including its clinical importance.

2. Give an account of the tongue including its blood supply, lymphatic drainage, nerve supply and development.

3. Give an account of the subclavian artery and give its relations. Enumerate its branches and give their course and distribution.

PART B - (DENTAL ANATOMY, DENTAL HISTOLOGY)

1. Describe the age changes in teeth.
   What is their clinical relevance to the dental practitioner.

2. Write notes on the following:

   2.1. First bronchial arch (including ectoderm and endoderm)

   2.2. Histology of the condyle, indicating any age changes.

   2.3. Collagen in the periodontal ligament.

3. Describe the reflexes that can be elicited from the oralcavity. Briefly indicate the clinical relevance of suchreflexes.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) EXAMINATION
SEPTEMBER, 1997

Date: 2nd September, 1997 Time :2.00 p.m. - 5.00 p.m.

PAPER 11

Answer Part A and Part B in separate books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

1. Write an account of the composition and regulation of salivary secretion, and the effects of altered salivary secretion.

2. Write an essay on the physiology of the cough reflex.

3. Write brief notes on:

   3.1. Reflux oesophagitis

   3.2. Biochemical and bone changes in primary hyperparathyroidism

   3.3. Clinical and laboratory diagnosis of vitamin B12 deficiency

PART B - (PATHOLOGY)

1. Discuss briefly the defence mechanisms of the body.
   What infections may occur in an immunocompromised person?

2. Discuss the aetiology, pathology and complications of acute osteomyelitis.

3.

   3.1. Describe the factors, which would help to predict the biological behavior of neoplasm.

   3.2. List the changes seen in neoplastic cells.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
AUGUST 1998

Date: 1st September, 1998 Time: 9.00 a.m. - 12.00 noon.

PAPER I

Answer two questions only from each part.
Each question to be answered in a separate book.

PART A - (GENERAL ANATOMY)

1. Describe the gross structure, microscopic appearance and relations of the Submandibular salivary gland.

2. Write an account of the course and distribution of the mandibular division of the trigeminal nerve.
   Briefly state its central connections.

3. Write an account of the venous drainage of the head and neck region. Briefly indicate its clinical importance.

PART B - (DENTAL ANATOMY & DENTAL HISTOLOGY)

1. How do the various structures seen in a ground section of enamel relate to the development of the tissue.

   Briefly indicate why knowledge of surface enamel is clinically relevant to the dental surgeon.

2. Describe the development of the palate, including the mechanism (s) of palatal shelf elevation.

   Briefly explain how cleft palate is produced.

3. Write notes on the following:

   3.1 Dentine hypersensitivity
   3.2. Junctional epithelium

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
AUGUST 1998

Date: 1st September, 1998 Time: 2.00 p.m. - 5.00 p.m.

PAPER 11

Answer Part A & Part B in separate Books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

1. Write an account on pain, highlighting the physiological basis of the techniques utilized in pain control.

2. Describe how the glucose level of the blood is maintained in health and disease.

3. Briefly explain the physiological basis of the following with special reference to dental treatment.

   3.1. Syncope
   3.2. Hyperventilation
   3.3. Thrombocytopenia

PART B – (PATHOLOGY)

1. What is an infarct? Describe the pathology of a three-day-old myocardial infarct. List the possible sequelae of an infarct occurring anywhere in the body.

2. Define the term chronic inflammation.
   List FIVE chronic inflammatory conditions, which affect the head and neck region.
   Describe the pathology and complications of any THREE conditions you mentioned.

3. Write notes on:
   3.1. The assessment of the prognosis of a malignant tumor using histopathological criteria.

   3.2. The effects of ionizing radiation on oral tissues.

   3.3. The structure and functions of the polymorphonuclear leucocyte.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1999

Date: - 14th September, 1999 Time 9.00 a.m. - 12.00 noon

PAPER I

Answer two questions only from each part.
Each question to be answered in a separate book.

PART A - (GENERAL ANATOMY)

1. Give an account of the arrangement of fascia and fascial spaces in the head and neck region with special reference to the spread of infection from a mandibular tooth.

2. Write notes on two of the following:

   2.1. Describe the internal anatomy of the right atrium. Briefly state the developmental anomalies associated with it.

   2.2. Describe the microscopic structure and development of the thyroid gland.

   2.3. Give an account of the distribution of the glossopharyngeal nerve.

3. Discuss the strength and weakness of the maxillofacial skeleton in relation to fractures.

PART B - (DENTAL ANATOMY & DENTAL HISTOLOGY)

1. Discuss the possible factors associated with alveolar bone remodeling (osteoblast/osteoclast interactions), also indicating how this knowledge is important to the dental surgeon.

2. Explain how the dentine and pulp react to external stimuli, including a brief discussion on how odontoblasts might regenerate from an exposed pulp to form a dentine bridge.

3. Give an account of the microscopic anatomy of the temporomandibular joint. Briefly discuss whether mandibular growth can be influenced by external forces?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 1999

Date: - 14th September, 1999 Time 2.00 p.m. 5.00 p.m.

PAPER II

Answer Part A & Part B in separate Books.
Answer only two questions from each part

PART A - (APPLIED PHYSIOLOGY)

1. Name three plasma proteins and their functions.
   Discuss the causes and effects of a significant fall in plasma protein concentration.

2. Describe the general arrangement of the autonomic nervous system and highlight its role in the control of the cardiovascular functions.

3. Discuss the physiological basis of the following:

   3.1. Shock

   3.2. Corneal reflex

   3.3. Fever

PART B- (PATHOLOGY)

1. Describe the factors that contribute to oedema formation in acute inflammation. Briefly explain two mechanisms for generalized oedema of the body.

2. Describe the pathological processes that lead to obstruction of arteries and the changes observed in the tissues as a result of arterial obstruction.

3. Giving examples describes the pathology and explains the sequelae and complications of chronic osteomyelitis.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2000

Date: 19th September, 2000 Time: 9.00 a.m. - 12.00 noon

PAPER I

Answer two questions only from each part.
Each question to be answered in a separate book.

PART A - (GENERAL ANATOMY)

1. Give an account of the palate including its nerve supply, blood supply and development. State the developmental anomalies associated with the palate.

2. Describe the relationships of the structures in the neck at the level of the isthmus of the thyroid gland.

3. Briefly describe the shape of the hyoid bone and, give its embryological origins. Name the structures that are attached to the hyoid bone. State the function of the hyoid bone ?

PART B - (DENTAL ANATOMY & DENTAL HISTOLOGY)

1. Discuss the vitality of the tissues that make up a fully formed tooth in terms of their innervation, vascularity, cellularity and ability to repair or regenerate.

2. Write a general account on the histological structure of salivary glands. Discuss the factors that influence salivary flow rate and composition during function.

3. Write notes on the following:

   (a) Junctional epithelium
   (b) Periodontal mechanoreceptors
   (c) Incremental patterns in enamel

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2000

Date: 19th September, 2000 Time: 2.00 p.m. - 5.00 p.m.

PAPER 11

Answer Part A and Part B in separate books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

1. Explain the physiological basis of the commonly used tests of ventilatory function. State their usefulness in assessment of a patient awaiting surgery.

2. Describe the body fluid compartments. Discuss the possible changes in body fluid compartments in

   (a) Moderate hemorrhage

   (b) Fluid deprivation.

3. Write notes on:

   (a) The stretch reflex

   (b) Rh incompatibility

   (c) Calcitonin

PART B - (PATHOLOGY)

1. Write an account on the possible adverse (harmful) effects and complications of acute inflammation.

2. Discuss the causes and clinico-pathological effects of venous occlusion.

3. Describe giving examples the similarities and differences between carcinomas and sarcomas.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2001

Date **:-** 18th September, 2001 Time **:-** 9.00 **a.m.** -12.00 noon

PAPER 1

"

Answer Part A and Part B in separate books.
Answer two questions only from each part.

PART A - (GENERAL - ANATOMY)

1. Describe the relationship of the structures present in the neck at the 6th cervical vertebral level.. State the clinica1 importance of the relationships described.

2. Write an account of the maxillary sinus and state the clinica1 importance of its relations.

3. Write an account of the arteries and veins of the face.
Discuss its clinical applications.

PART B - (DENTAL ANATOMY, HISTOLOGY, ORAL PHYSIOLOGY AND BIOCHEMISTRY)

1 . Describe the surface of a newly erupted mandibular first permanent mo1ar tooth. statethe clinical significance of each of the features described.

2. Discuss briefly how the structure of the oralmucosa is modified over the various regions of the oral cavity, indicating how this knowledge could help the clinician.

3 . Discuss the similarities and differences between alveolar bone and cementum as regards to structure, function and age changes.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2001

Date :- 18th September, 2001 Time :- 1.30 p.m. - 4.30 p.m.

PAPER II

Answer Part A and Part B in separate books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

~~.

1 . Explain the mechanism of spontaneous arrest of bleeding which occurs due to a minor injury.

Briefly describe the conditions in which bleeding is prolonged,

2. Write a brief account of the sensory system in the body with special reference to the role played by the spinal cord.

3. Discuss the physiology of

3.1 Left ventricular failure
3.2. Calcium metabolism
3.3 Csrpopedal spasm

PART B - (PATHOLOGY)

1 . Describe the pathological mechanisms that result in the accumulation of fluid in the interstitial tissues and body cavities.

2. Describe the pathogenesis and morphological features (macroscopic and microscopic) of degeneration and necrosis.

3. Write notes on :

3.1. The role of oncogenes in neoplasia
3.2. The role of growth factors in wound healing.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2002

Date: 10th September, 2002 Time: 9.00 a.m. - 12.00 noon

PAPER I

Answer Part A and Part B in separate hooks.
Answer two questions only from each Part.

PART A - (GENERAL ANATOMY)

1. Describe the origin, course and distribution of the Hypoglossal nerve.
   Discuss the clinical significance.

2. Describe the development of the face.
   Discuss the embryological basis of its congenital defects.

3. Discuss the strengths and weaknesses of the maxillo-facial skeleton in relation to fractures.

PART B - (DENTAL ANATOMY)

1. Give an account of the development of the mandible.
   Discuss the role of secondary cartilages in growth of the mandible.

2. Describe the changes in alveolar bone, oral mucosa, salivary glands and oral musculature in ageing.
   Discuss the clinical importance of the changes described.

3. Discuss repair and regeneration of tissues of teeth, indicating their clinical implications.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2002

Date: 10th September,2002 Time: 1.30 pm - 4.30 p.m.

PAPER II

Answer Part A and Part B in separate books.
Answer two questions only from each part.

PART A- (APPLIED PHYSIOLOGY)

1. Write an account of the factors affecting the mobility of Calcium Irons and Salt in the body.

2. What are the main functions of the liver ?
   Indicate the Clinical significance of the functioned you mentioned in Dental Practice.

3. Write Short notes:
   a) Neural Centres controlling eating
   b) Cardiovascular response to haemorrhage
   c) Assessment of airway obstruction
   d) Anticoagulants

PART B - (PATHOLOGY)

1.
   1.1 Define the term neoplasm.
   1.2 List the microscopic features of neoplastic cells.
   1.3 Discuss the genetic basis of carcinogenesis.

2.
   2.1 Describe the process of healing of a chronic ulcer.
   2.2 Describe giving reasons, the procedures that would help the healing of a chronic ulcer.

3.
   3.1 Describe the different types of exudates.
   3.2 Explain how laboratory examination of these exudates help in determining the etiology of the disease process.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2003

Date :- 16th September, 2003 Time :-9.30 a.m. - 12.30 p.m.

PAPER 1

Answer Part A and Part B in separate books.
Answer two questions only from each part.

PART A - (GENERAL ANATOMY)

1. Describe the cavernous sinus including its relations, contents and venous connections.

   Explain why this knowledge is important to the dental surgeon.

   .

2. Write an account on the hard palate.
   Outline its development and developmental abnormalities.

3. Describe the arrangement and area of drainage of the lymph nodes in the head and neck region.

PART B - ORAL BIOLOGY (DENTAL ANATOMY, DENTAL HISTOLOGY AND ORAL PHYSIOLOGY & BIOCHEMISTRY)

1. Describe amelogenesis.
   Indicate the, effects of disturbed amelogenesis.

2. Describe the structural features seen in the dentine of a ground section of a tooth.
   How are these features related to its development.
   Indicate the clinical significance of the age changes in dentine.

3. Write notes on
   3.1. Ectomesenchymal interractions during tooth development
   3.2. Epithelial attachment (Junctional epithelium)
   3.3. Minor salivary glands

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2003

Date :- 16th September, 2003 Time :- 1.30 p.m. - 4.30 p.m.

PAPER II

Answer Part A and Part B in separate books.
Answer only two questions from each part.

PART A - (APPLIED PHYSIOLOGY)

1. Discuss the haematological findings of inherited coagulative disorders. How do these findings differ in thrombocytopenia.

2. Write an account on physiology of the thyroid gland.

3. Write notes on:

   3.1. Absorption of iron
   3.2. Referred pain
   3.3. Bile
   3.4. Homeostasis of body temperature

PART B - (PATHOLOGY)

1. Discuss the similarities and differences between apoptosis and necrosis.

2.

   2.1. Define the term embolism

   2.2. Describe the different types of emboli

   2.3. Describe the sequelae of embolism

3. Describe briefly the factors that determine prognosis in malignant tumours.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
OCTOBER, 2004

Date 12th October, 2004 Time 9.30 a.m - 1 2.30 p.m

PAPER 1

Answer Part A and Part B in separate books.
Answer two questions only from each part.

PART A - (GENERAL ANATOMY)

01. Write an account on the deep cervical fascia. Discuss its clinical importance.

02. Describe the origin, course and distribution of the facial nerve.
Discuss the effects of injury to the facial nerve.

03. Write an account of the arteries and veins of the face.
Discuss their clinical importance.

PART B - ORAL BIOLOGY (DENTAL ANATOMY, DENTAL HISTOLOGY AND ORAL PHYSIOLOGY & BIOCHEMISTRY)

01. Describe the histological features of the components of the temporomandibular joint indicating their functional significance.

02. Describe the structural features and physicochemical properties of enamel indicating the importance of this knowledge in clinical dental practice.

03. W rite notes on :

3.1. Regeneration potential of the periodontal ligament

3.2. Hertwig's epithelial root sheath

3.3. Speech abnormalities in patients with cleft palate

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
OCTOBER, 2004

Date 12th October, 2004 Time 1 .30 p.m. - 4.30 p.m.

PAPER II

Answer Part A and Part B in separate books.
Answer two questions only from each part.

PART A - (APPLIED PHYSIOLOGY)

1. Discuss the role of the kidney in the maintenance of acid- base balance. Explain how metabolic acidosis due to chronic renal failure may be compensated.

2. Describe how pain sensation from a molar tooth is felt by the individual. Describe and explain the physiological basis of the methods available to a dental surgeon to alleviate such pain.

3. W rite notes on :

   3.1. Conduction in myelinated nerves
   3.2 Acromegaly
   3.3 Excitation - contraction coupling in cardiac muscle
   3.4 Physiological role of nitric oxide

PART B - (PATHOLOGY)

1. Write an essay on the pathogenesis, sequelae and complications of suppurative inflammation.

2.

   2.1 Write an account on the pathogenesis and sequelae of thrombosis in veins.
   2.2 Describe the pathological effects of such thrombosis.
   Illustrate your answer with examples where relevant.

3.

   3.1 Compare and contrast healing by primary and secondary intention.
   3.2 Describe the process of healing of a tooth extraction wound.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2005

Date 6th September, 2005 Time 9.30 a.m - 1 2.30 p.m

PAPER 1

Answer Part A and Part B in separate books.
Answer two questions only from each part.

PART A - (GENERAL ANATOMY)

1. Write an account of the arrangement of fascia and fascial spaces in the head and neck region and state the clinical importance.

2. Describe the anatomy of the maxillary sinus and discuss its clinical importance.

3. Write an account of the lymphatic drainage of the head and neck region and discuss its clinical significance.

PART B - (ORAL BIOLOGY (DENTAL ANATOMY, DENTAL HISTOLOGY AND ORAL PHYSIOLOGY & BIOCHEMISTRY)

1. Discuss the defensive and regenerative properties of the dentine-pulp complex. Explain how this knowledge could help the clinician in protecting the pulp during operative procedures.

2. Describe briefly the microscopic appearance of alveolar bone. Discuss the coupling of bone resorption and formation (bone remodelling) in health and disease.

3. Describe. the microscopic appearance of a mixed salivary gland including the duct system.
Describe briefly how saliva could be used as a diagnostic fluid.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2005

Date 6th September, 2005 Time 1.30 p.m - 4.30 p.m

PAPER 1I

Answer Part A and Part B in separate books.
Answer two questions only from each part.

PART A - (APPLIED PHYSIOLOGY)

1. Write an account on spinal shock.

2.
   - 2.1. Discuss the physiology of anterior pituitary gland.
   - 2.2. How do altered functions of the anterior pituitary gland affect the craniofacial tissues.

3. Write notes on the following with emphasis on clinical significance :
   - 3.1. Prothrombin time
   - 3.2. Hyperventilation
   - 3.3. Thalassaemia
   - 3.4. Glucose tolerance test

PART B- (PATHOLOGY)

1. Describe the bacteriology of wound infections likely to occur in a. surgical ward.
   Outline the methods you would employ to investigate, manage and prevent these infections.

2. Describe the pathogenesis of 'shock'

3. Write notes on :
   - 3.1. Granulomatous lesions in oro-facial region
   - 3.2. Fine-needle aspiration cytology
   - 3.3. T umour angiogenesis

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2006

Date 18th September, 2006 Time 2.00 p.m – 5.00 p.m

PAPER 1

Answer Part A and Part B in separate books.
Answer two questions only from each part.

PART A - (GENERAL ANATOMY)

1. Write an account of the parotid region and discuss the clinical importance.

2. Write an account of the muscles of facial expression. Discuss the clinical applications of this knowledge.

3. Write an account of the pharynx. Explain the anatomical basis of dysphagia.

PART B- (ORAL BIOLOGY (DENTAL ANATOMY, DENTAL HISTOLOGY AND ORAL PHYSIOLOGY & BIOCHEMISTRY)

1. Describe the structure of the periodontal ligament.

   Discuss how the structure of the periodontal ligament is maintained in health and explain how this knowledge can be utilized in the clinical field.

2. Describe the changes that take place in the jaws and the temporo-mandibular joint in agemg.

   Discuss the problems that are faced by the patient and by the dental surgeon due to these changes.

3. Describe the macroscopic and microscopic appearance of the mucosa of the dorsum and lateral borders of the tongue.

   Indicate briefly how alterations in the macroscopic appearance help the clinician to diagnose/suspect disease states.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER, 2006

Date 19th September, 2006 Time 9.00 a.m – 12.00 noon

PAPER 1I

Answer Part A and Part B in separate books.
Answer two questions only from each part.

PART A - (APPLIED PHYSIOLOGY)

1.
- 1.1. Describe the functions of the liver.
- 1.2. What are the implications in clinical practice when these functions are altered by diseases of the liver ?

2.
- 2.1. Discuss the physiology of the parathyroid gland.
- 2.2. What are the clinical manifestations of altered functions of the parathyroid gland ?

3. W rite notes on:
- 3.1. Role of the kidneys in the control of blood pressure.
- 3.2. Oxygen dissociation curve.
- 3.3. Gate control theory of pain.

PART B- (PATHOLOGY)

1. Discuss the cellular level protective mechanisms involved in the prevention of occurrence of malignant neoplasms.

2.
- 2.1. Discuss the factors that will decide the extent of an infarct.
- 2.2. Describe the differences between pale and red infarct.
- 2.3. Discuss reperfusion injury.

3.
- 3.1. Describe the mechanism of healing of fracture of bones. .
- 3.2. Discuss the pathological basis of complications of fracture healing.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
SEPTEMBER 2007

Date : 17th September 2007 Time : 1.00 p.m. - 4.00 p.m.

PAPER I

Answer two questions only from each part.
Answer each question in a separate book.

PART A - (GENERAL ANATOMY)

1. Write an account of the cavernous sinus. Add a note on its clinical significance to the dental surgeon.

2. Write an account of the structures in the floor of the mouth and state their clinical importance.

3. Describe the arch of the aorta including its immediate relations and development.

PART B - (ORAL BIOLOGY. DENTAL ANATOMY. DENTAL HISTOLOGY. ORAL PHYSIOLOGY AN.!!J!.IOCHEMISTRY)

4. Describe the life cycle of an enamel forming cell indicating how it functions to establish the structure of enamel.

   List the factors that may disturb the function of this cell and discuss the effects.

5. Describe the histological changes taking place in a tooth germ and its immediate surrounding tissues during eruptive tooth movement.

   Discuss the factors that may disturb this movement and their clinical significance.

6. Describe the structure and composition of attached gingiva in health indicating the clinical relevance of each of the component.

   State similarities and differences between the structure and functions of the attached gingiva and alveolar mucosa.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY PART I EXAMINATION
SEPTEMBER 2007

Date : 18th September 2007 Time : 9.00 a.m. - 12.00 noon

PAPER II

Answer two questions only from each part.
Answer each question in a separate book.

PART A - (APPLIED PHYSIOLOGY)

1. Describe the role of hypothalamus on
   1.1. Thermoregulation
   1.2. Osmoregulation
   1.3. Intake of food

2. Discuss the physiological basis of compensatory mechanisms activated by profuse bleeding.

3. Highlight the physiological significance of
   3.1. Blood-Brain Barrier
   3.2. Bohr-effect on oxy-haemoglobin curve
   3.3. Vasovagal syncope
   3.4. Axon reflex

PART B - (PATHOLOGY)

4. "Autoimmunity results in disease".
   Qualify this statement using examples.

5. Discuss calcium metabolism in health and in disease.

6. Write notes on

   6.1. Tumour markers
   6.2. Changes in blood constituents during systemic infections
   6.3. Role of platelets in haemostasis

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
OCTOBER 2008

Date: 6th October 2008 Time : 1.00 p.m. - 4.00 p.m.

PAPER I

Answer two questions only from each part.
Answer each question in a separate book.

PART A - **(GENERAL ANATOMY)**

1. Describe the origin and course of the secretomotor pathways of the following

   1.1 Parotid gland

   1.2 Submandibular gland

   1.3 Lacrimal gland

2.

   2.1. Write an account of the trachea including its anatomical relations.
   2.2. List the structures which could be damaged during
   2.2.1. cricothyrotomy
   2.2.2. tracheostomy.

3.

   3.1. Write an account of the zygomatico-maxillary complex and its relations.

   3.2. Describe the anatomical basis of symptoms resulting from fractures of this complex.

PART B - **(ORAL BIOLOGY. DENTAL ANATOMY. DENTAL HISTOLOGY. ORAL PHYSIOLOGY AND BIOCHEMISTRY)**

4.

4.1. Write an account of the postnatal growth of the craniofacial skeleton including the mandible.

4.2. Indicate the conditions that may affect this growth and discuss the possible effects.

5. Discuss the role played by the structural components of the periodontium in maintaining the tooth in the functional position during health and disease.

6.

6.1. Describe the cellular and subcellular structural features of a secretary end piece and the ductal system of a salivary gland.

6.2. Explain the functional significance of these features.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MS (DENTAL SURGERY) PART I EXAMINATION
OCTOBER 2008

Date: 7th October 2008 Time : 1.00 p.m. - 4.00 p.m.

PAPER II

Answer two questions only from each part.
Answer each question in a separate book.

PART A (APPLIED PHYSIOLOGY)

1.

1.1. Describe the structure and function of a neuromuscular junction.

1.2. Discuss its clinical significance.

2. Write notes on

2.1. Congestive cardiac failure
2.2. Adrenal cortex
2.3. Respiratory function tests

3. Write an account on the physiological basis of liver function tests.

PART B (PATHOLOGY)

4. Write an essay on genes involved in the causation and prevention of cancer.

5.

5.1. .Describe the virology and serology of Hepatitis B infection.

5.2. Outline the sequelae of Hepatitis B infection.

5.3. Discuss measures that should be taken to protect health personnel and patients from Hepatitis B infection.

6. Write notes on

6.1. Apoptosis.
6.2. Primary amyloidosis
6.3. Carcinoma of unknown primary syndrome involving cervical nodes.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (ORAL SURGERY)
OCTOBER 2009

Date : 5th October 2009 Time : 2.00 p.m. – 5.00p.m.

PAPER 1.1

Answer three (03) questions from each part.
Answer each question in a separate book.

Part A (General Anatomy)

1.

1.1. Describe the investing layer of the deep cervical fascia. (70 marks)

1.2. State the relations of the internal carotid artery at its origin. (30 marks)

2.

2.1. Enumerate the functional components of the facial nerve. (15 marks)

2.2. Describe its intracranial course. (60 marks)

2.3. Explain the clinical features of a lesion in the facial canal. (25 marks)

3.

3.1. Describe the arrangement of lymphnodes in the region of head and neck. (60 marks)

3.2. Explain the possible pattern/s of lymphatic spread in malignancies at the following sites :

3.2.1. Posterior one third of the tongue (20 marks)

3.2.2. maxillary sinus (20 marks)

4.

4.1. Describe the arrangement of the veins in the face. (60 marks)

4.2. Discuss the deep connections of the veins mentioned in 4.1. highlighting their clinical relevance. (40 marks)

Part B (Dental Anatomy)

5.

5.1. List the differences between the adult mandible and that of a neonate. (20 marks)

5.2. Explain the mechanisms responsible for the postnatal growth ... of the mandible. (50 marks)

5.3. List the conditions that may affect the growth of the mandible and state the effects. (30 marks)

6.

6.1. Describe the development of dentogingival junction (20 marks)

6.2. Describe the microscopic structure of dentogingival junction (40 marks)

6.3. List the functions of the dentogingiva1junction and indicate their clinical relevance. (40 marks)

7.

7.1. Describe the development of the secondary palate. (50 marks)

7.2. List the possible causes for the palatal shelf e1evation.(30 marks)

7.3. Outline theories related to the explanation of palatal fusion. (20 marks)

8.

8.1. Describe the macroscopic appearance of the mucosa of the tongue. (40 marks)

8.2. List possible macroscopic changes that can be seen on the tongue. (20 marks)

8.3. Indicate the clinical relevance of the changes mentioned in 8.2. (40 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO
SELECTION EXAMINATION IN MD (ORTHODONTICS)
OCTOBER 2009

Date : 5th October 2009 Time : 2.00 p.m. – 5.00p.m.

PAPER 1.2

Answer three (03) questions from each part.
Answer each question in a separate book.

Part A (General Anatomy)

1.

1.1. Describe the structure of the temporomandibular joint including its nerve supply and blood supply. (65 marks)

1.2. Discuss its movements. (25 marks)

1.3. List the medical relations of the joint. (10 marks)

2.

2.1. Illustrate the triangles of the neck using a labelled diagram. (20 marks)

2.2. List the cranial nerves present in each of the triangles mentioned in 2.1. (30 marks)

2.3. Describe the course in the neck, of **one** of the cranial nerves mentioned in 2.2. (50 marks)

3.

3.1. List the muscles of the soft palate. (20 marks)

3.2. Give an account of the attachments and actions of each muscle mentioned in 3.1. (60 marks)

3.3. Explain briefly the anatomical basis of the clinical/functional problems commonly seen in patients with clefts of the soft palate. (20 marks)

4.

4.1. Describe how sutures help in the growth of the craniofacial skeleton. (60 marks)

4.2. What effects would you expect to see in the face with an early fusion of these sutures? (40 marks)

Part B (Dental Anatomy)

5.

5.1. List the differences between the adult mandible and that of a neonate. (20 marks)

5.2. Explain the mechanisms responsible for the postnatal growth of the mandible. (50 marks)

5.3. List the conditions that may affect the growth of the mandible and state the effects. (30 marks)

6.

6.1. List the components of the periodontium. (10 marks)

6.2. Describe the structural and compositional characteristics of the components mentioned in 6.1. which are related to their function. (70 marks)

6.3. Indicate how you would utilize the above information in clinical practice. (20 marks)

7.

7.1. Describe the role of the periodontal ligament in tooth eruption. (50 marks)

7.2. Explain why teeth continue to erupt after they have reached their functional position. (30 marks)

7.3. List the causes of delayed eruption. (20 marks)

8.

8.1. Describe how the normal occlusion of the deciduous dentition differs from that of the permanent dentition. (20 mark)

8.2. Explain the process of transition from the normal occlusion of the deciduous dentition to that of the permanent dentition. (40 marks)

8.3. List common deviations that could be seen in the process mentioned in 8.2. (20 marks)

8.4. What is dental age and indicate how this is useful in clinical Practice ? (20 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO
SELECTION EXAMINATION IN MD (RESTORATIVE DENTISTRY)
OCTOBER 2009

Date : 5th October 2009 Time : 2.00 p.m. – 5.00p.m.

PAPER 1.3

Answer three (03) questions from each part.
Answer each question in a separate book.

Part A (General Anatomy)

1.

1.1. Describe the investing layer of deep cervical fascia. (70 marks)

1.2. State the relations of the internal carotid artery at its origin. (30 marks)

2.

2.1. Describe the anatomy of the maxillary air sinus. (70 marks)

2.2. Indicate the importance of its relations to dental practice. (30 marks)

3. With regard to the palate

3.1. Describe the development. (30 marks)

3.2. Indicate the nerve and blood supply. (30 marks)

3.3. List the developmental anomalies. (20 marks)

3.4. Outline how the quality of life in a person could be affected as a result of the anomalies mentioned above. (20 marks)

4.

4.1. What are the functional components of the mandibular division of the trigeminal nerve. (20 marks)

4.2. Describe the extracranial course of the mandibular nerve. (50 marks)

4.3. Describe the relevance of details mentioned in 4.2. in clinical practice. (30 marks)

Part B (Dental Anatomy)

5.

5.1. List the differences between the adult mandible and that of a neonate. (20 marks)

5.2. Explain the mechanisms responsible for the postnatal growth of the mandible. (50 marks)

5.3. List the conditions that may affect the growth of the mandible and state the effects. (30 marks)

6. Write notes on

6.1. Age related and post eruptive changes of dentine. (40 marks)

6.2. Adhesion of dental materials to dentine. (30 marks)

6.3. Dentine sensitivity. (30 marks)

7.

7.1. Describe how surface enamel differs from sub-surface enamel. (40 marks)

7.2. Explain how the knowledge of structure of enamel helps you to understand the principles of

(a). Fluoridation (20 marks)
(b). acid etching (20 marks)
(c). dental caries (20 marks)

8.

8.1. Describe how the dental pulp of a developing tooth differs from that of a matured tooth. (50 marks)

8.2. List the age changes that occur in the dental pulp and indicate their clinical relevance. (30 marks)

8.3. List the two types of cells in the pulp that have a close relationship to neural elements and indicate their functions. (20 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO
SELECTION EXAMINATION IN MD (ORAL SURGERY), MD (RESTORATIVE DENTISTRY), MD (ORTHODONTICS)
OCTOBER 2009

Date : 6th October 2009 Time : 9.00 a.m. -12.00 noon.

PAPER 1I

Answer three (03) questions from each part.
Answer each question in a separate book.

Part A (Physiology)

1.

1.1 List the functions of blood. (10 marks)

1.2. Briefly describe the haemopoiesis. (30 marks)

1.3. List the changes that could occur in whole blood during storage. (30 marks)

1.4. Write a brief account of haemophilia. (30 marks)

2.

2.1. List five (05) physiological functions of plasma calcium. (05 marks)

2.2. Describe the physiological mechanisms of the following hormones involved in calcium homoestasis.

2.2.1. Parathyroid hormone (PTH) (30 marks)

2.2.2. Calcitonin (15 marks)

2.3. Explain the mechanisms of bone remodeling in each of the following.

2.3.1. Paget's disease of bone (10 marks)

2.3.2. Orthodontic tooth movement. (15 marks)

2.3.3. Periodontal disease. (15 marks)

2.4. Outline the action of bisphosphonates and its clinical implications. (10 marks)

3.

3.1. List the stages of swallowing. (15 marks)

3.2. Describe the physiological processes involved in the stages of swallowing. (70 marks)

3.3. List the causes of dysphagia. (15 marks)

4.

4.1. Define the term glomerular filtration rate (GFR) (05 marks)

4.2. List four factors that determine GFR in a healthy adult. (10 marks)

4.3. Describe the physiological basis of the changes in GFR that you would observe in the following conditions :

4.3.1. In severe haemorrhage. (25 marks)

4.3.2. Ureteral obstruction. (20 marks)

4.3.3. Liver disease. (20 marks)

4.4. Explain the physiological basis of hypertension observed in a patient with renal artery stenosis. (20 marks)

5.

5.1. Explain the term "Shock" in clinical practice. (10 marks)

5.2. List five (05) types of shock with two clinical examples for each type mentioned. (20 marks)

5.3. List the stages of shock and indicate the clinical significance. (30 marks)

5.4. Describe the pathogenesis of shock as a result of sepsis. (40 marks)

6.

6.1. "Metastasis of a malignant neoplasm is a complex process". Explain the above statement. (60 marks)

6.2. Explain as to why some tumours have selective sites for metastasis. (20 marks)

6.3. Briefly explain the process of malignant cachexia. (20 marks)

7.

7.1. Define the term "antibiotic" (10 marks)

7.2. List five (05) different groups of antibacterial agents with one example for each group. (20 marks)

7.3. Briefly explain the mode of action of antibiotics using exsamples. (25 marks)

7.4. Give possible causes for failures in antibiotic treatment. (25 marks)

7.5. List (i) one indication
(ii) one contraindication / precaution
In each of the following agents when used in clinical practice.

(a) Amoxycillin (b) Metranidazole (c) Doxycycline
(b) Clindamycine (20 marks)

8.

8.1. Define the term “thrombosis” (05 marks)

8.2. Briefly explain the pathogenesis of thrombosis. (30 marks)

8.3. List the predisposing factors for thrombosis. (20 marks)

8.4. How would you prevent thrombosis in a high risk patient ? (25 marks)

8.5. Compare and contrast a thrombus with a postmortem clot. (20 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (ORAL SURGERY)
OCTOBER 2010

Date : 6th October 2010 Time : 2.00 p.m. – 5.00p.m.

PAPER 1.1

Answer three (03) questions from each part.
Answer each question in a separate book.

PART A (General Anatomy)

1.

1.1. Describe the macroscopic appearance of the tongue and its clinical relevance. (70 marks)

1.2. Discuss its embryological development and associated abnormalities. (15 marks)

1.3. Describe briefly the lymphatic drainage of the tongue. (15 marks)

2.

2.1. Describe the macroscopic structure of the lateral wall of the nose. (60 marks)

2.2. State the clinical relevance of the structures in the lateral wall. (20 marks)

2.3. Discuss the sensory innervation of the lateral wall of the nose. (20 marks)

3.

3.1. Describe the macroscopic structure and relations of the parotid gland and its duct with special reference to their clinical importance. (80 marks)

3.2. Explain how it receives the secretomotor supply. (20 marks)

4.

4.1. Discuss the course and distribution of the mandibular branch of the trigeminal nerve. (70 marks)

4.2. Discuss the clinical importance of the nerve and its branches. (30 marks)

PART B (Dental Anatomy)

5.

5.1. Explain briefly how the mucosal structure of the hard palate is adapted to perform its functions. (40 marks)

5.2. State how the mucosa of the floor of the mouth is modified from that of the palate. (30 marks)

5.3. State the clinical significance of the modifications mentioned in 5.2. (30 marks)

6.

6.1. State the different types of tooth movements that are taking place in a 10 year old boy with examples. (30 marks)

6.2. Describe the associated changes that occur in the tooth and its surrounding tissue during each movement mentioned in 6.1. (50 marks)

6.3. State how the above knowledge could help in clinical practice. (20 marks)

7.

7.1. List the non secretory components of a major salivary gland. (20 marks)

7.2. Describe the histology of the components mentioned in 7.1. (40 marks)

7.3. Describe the functional relevance of these components in health and disease. (40 marks)

8.

8.1. List the layers that form the condylar head of the mandible in a young individual. (20 marks)

8.2. Describe the histological appearance of each layer mentioned in 8.1. (40 marks)

8.3. Outline the clinical relevance of these histological features with emphasis on diagnosis and surgical treatment of diseases of condylar head. (40 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (ORTHODONTICS)
OCTOBER 2010

Date : 6th October 2010 Time : 2.00 p.m. – 5.00 p.m.

PAPER 1.2

Answer three (03) questions from each part.
Answer each question in a separate book.

PART A (General Anatomy)

1.

1.1. Describe the structure of the lateral wall of the nose. (80 marks)

1.2 Discuss its blood supply and sensory innervation. (20 marks)

2.

2.1 Describe the macroscopic anatomy of the oropharynx including the palatine tonsil. (80 marks)

2.2. Explain the first stage of deglutition. (20 marks)

3.

3.1. Describe the development of the face. (60 marks)

3.2 Discuss the embryological basis of its congenital defects. (40 marks)

4.

4.1 Give an account of the muscles of facial expression. (70 marks)

4.2 State how these muscles could be used to examine the facial nerve. (30 marks)

PART B (Dental Anatomy)

5.

5.1 Explain briefly how the mucosal structure of the hard palate is adapted to perform its functions. (40 marks)

5.2 State how the mucosa of the floor of the mouth is modified from that of the palate. (30 marks)

5.3 State the clinical significance of the modifications mentioned in 5.2 (30 marks)

6.

6.1 State the different types of tooth movements that are taking place in a 10 year old boy, with examples. (30 marks)

6.2 Describe the associated changes that occur in the tooth and its surrounding tissue during each movement mentioned in 6.1. (50 marks)

6.3 State how the above knowledge could help in clinical practice. (20 marks)

7

7.1 Describe the postnatal growth of the middle third of the facial skeleton. (50 marks)

7.2 State the clinical conditions that may affect this growth. (20 marks)

7.3 Discuss briefly the possible effects due to the conditions mentioned in 7.2. (30 marks)

8.

8.1 Explain briefly the growth and development of alveolar bone. (40 marks)

8.2 Indicate the clinical conditions that may affect alveolar bone and their possible effects. (30 marks)

8.3 Compare and contrast the principal features of alveolar bone and cellular cementum. (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (RESTORATIVE DENTISTRY)
OCTOBER 2010

Date : 6th October 2010 Time : 2.00 p.m. – 5.00 p.m.

PAPER 1.3

Answer three (03) questions from each part.
Answer each question in a separate book.

PART A (General Anatomy)

1.

1.1 Give an account of the origin, course and distribution of the first (mandibular) part of the maxillary artery. (80 marks)

1.2. Describe the development of the maxillary artery. (20 marks)

2.

2.1 Describe the extracranial course of the hypoglossal nerve. (70 marks)

2.2 Discuss the clinical significance that is relevant to dental practice. (30 marks)

3.

3.1 Describe the functional components of the facial nuclei. (30 marks)

3.2. Give an account of the chorda tympani nerve. (70 marks)

4.

4.1 Describe the structure of the temporomandibular joint. (70 marks)

4.2 Add a note on its clinical importance. (30 marks)

PART B (Dental Anatomy)

5.

5.1 Explain briefly how the mucosal structure of the hard palate is adapted to perform its functions. (40 marks)

5.2 State how the mucosa of the floor of the mouth is modified from that of the palate. (30 marks)

5.3 State the clinical significance of the modifications mentioned in 5.2 (30 marks)

6.

6.1 State the different types of tooth movements that are taking place in a 10 year old boy, with examples. (30 marks)

6.2 Describe the associated changes that occur in the tooth and its surrounding tissue during each movement mentioned in 6.1. (50 marks)

6.3 State how the above knowledge could help in clinical practice. (20 marks)

7.

7.1. Describe the repair mechanism of the dentine-pulp complex to environmental injury and restorative dental procedures. (60 marks)

7.2. How would you apply this knowledge to protect this complex in clinical practice. (40 marks)

8.

8.1 Outline the structure of the periodontal ligament. (50 marks)

8.2. State how the structure of the periodontal ligament is adapted to perform its functions. (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (ORAL SURGERY), MD (RESTORATIVE DENTISTRY), MD (ORTHODONTICS)
OCTOBER 2010

Date : 7th October 2010 Time : 2.00 p.m. – 5.00 p.m.

PAPER 1I

Answer three (03) questions from each part.
Answer each question in a separate book.

PART A (Physiology))

1.

1.1. Define the term haemostasis ? (05 marks)

1.2 Explain the factors that prevent blood clot formation within the normal vascular system. (30 marks)

1.3 Explain the physiological significance of the following tests of haemostasis, giving examples of clinical conditions.

1.3.1 Bleeding time (25 marks)

1.3.2. Prothrombin time (20 marks)

1.3.3 Activated partial thromboplastin time (APTT) (20 marks)

2.

2.1 Define the following terms:

2.1.1 Systolic blood pressure

2.1.2 Diastolic blood pressure

2.1.3 Mean arterial pressure

2.1.4. Ejection fraction (10 marks)

2.2 Explain the physiological basis of giving angiotensin converting enzyme inhibitors (ACEIs) to patients with hypertension. (30 marks)

2.3 Describe the physiological mechanisms responsible for regulation of blood pressure in the following conditions.

2.3.1 Moving from supine to erect position (35 marks)

2.3.2. Excessive salt intake (25 marks)

3.

3.1.

3.1.1 Hyperventilation causes carpopedal spasms. (25 marks)

3.1.2 Increased haemorrhagic tendency in obstructive jaundice. (25 marks)

3.1.3 Kussmaul's breathing in diabetes ketoacidosis. (25 marks)

3.1.4. Anaemia in chronic renal failure. (25 marks)

4.

4.1. Define the term oedema. (10 marks)

4.2 Describe the physiological basis of oedema in the following conditions.

4.2.1. Right heart failure (25 marks)

4.2.2. Cirrhosis (20 marks)

4.2.3. Lymphatic obstruction (25 marks)

4.2.4 Nephrotic syndrome (20 marks)

PART B (Pathology)

5.

5.1 Define the term "Neoplasm" (20 marks)

5.2 Name two (02) neoplasms each, arising from

5.2.1 Muscles (02 marks)

5.2.2 Nerves (02 marks)

5.2.3 Blood vessels (02 marks)

5.2.4 Bone (02 marks)

5.2.5 Cartilage (02 marks)

5.3 "The p53 Gene is the guardian of the genome". Justify this statement. (35 marks)

5.4 Describe the steps in tumour invasion and metastasis. (35 marks)

6.

6.1 What is suppurative inflammation ? (20 marks)

6.2 List the common bacteria causing suppurative inflammation in wounds. (30 marks)

6.3 Describe the sequelae of suppurative inflammation. (50 marks)

7.

7.1 Describe the basic stages in the fracture healing. (50 marks)

7.2 List the factors that adversely affect fracture healing. (10 marks)

7.3. List the common complications that could occur in fracture healing. (10 marks)

7.4 Describe brief1y the pathophysiological mechanism of ‘Distraction Osteogenesis' of craniofacial skeleton. (30 marks,

8.

8.1. What is an embolus ? (10 marks)

8.2 Name Four (04) common types of emboli. (20 marks)

8.3 Describe the effects of pulmonary embolism. (50 marks)

8.4 Explnjn the role of therapeutic embolisation in clinical practice. (20 marks)