



KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH

POST-GRADUATE DEGREE MDS PART I EXAMINATION - SEPTEMBER 2025
PROSTHODONTICS AND CROWN & BRIDGE
PAPER - I (Applied Basic Sciences) QP CODE 2231

PROSTHODONTICS AND CROWN AND BRIDGE [IM-PROSTHO]

Marks: 100

Duration: 180 mins.

LONG ESSAY QUESTIONS

Answer all the questions.

1			Discuss Prosthodontic significance of Trigeminal nerve.	(10)
2			Discuss Sterilization and Infection control in Prosthodontics	(10)
3			Write a note on role of Cone Beam Computed Tomography in Prosthodontics.	(10)
4			Discuss in brief alveolar bone physiology. Write a note on its correlation with implant dentistry.	(10)
5			Classify impression materials. Discuss irreversible hydrocolloids.	(10)
6			Write distinct features of TMJ and its prosthodontic consideration.	(10)
7			Discuss sequelae of ill fitting complete denture prosthesis.	(10)
8			Discuss in brief development and mechanism of the speech. Write a note on its application in Prosthodontics.	(10)
9			Discuss tests of significance in research methodology.	(10)
10			Prosthodontic management of Cleft lip and Cleft Palate.	(10)

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POST-GRADUATE DEGREE MDS PART I EXAMINATION - SEPTEMBER 2025
PERIODONTOLOGY PAPER - I
(APPLIED BASIC SCIENCES) QP CODE 2235

PERIODONTOLOGY [IK-PERIO]

Marks: 100

Duration: 180 mins.

LONG ESSAY QUESTIONS

Answer all the questions.

1			Discuss the Junctional Epithelium with reference to current concepts.	(10)
2			Describe the physiology of blood coagulation and discuss its applied aspects in relation to the periodontal surgical procedures. Add a note on anticoagulants.	(10)
3			Describe in detail course, relation and applied anatomy of Facial artery.	(10)
4			Discuss the normal function of neutrophils	(10)
5			Write a note on Red complex bacteria	(10)
6			Write in detail about phases of inflammation and pro inflammatory mediators in relation to periodontal disease.	(10)
7			Describe analgesics used in dentistry	(10)
8			Explain Calcium and phosphate metabolism	(10)
9			Discuss the methods of data collection and sampling.	(10)
10			Describe the role of tetracyclines in periodontal therapy	(10)

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POST-GRADUATE DEGREE MDS PART I EXAMINATION - SEPTEMBER 2025
ORAL AND MAXILLOFACIAL SURGERY PAPER - I
(APPLIED BASIC SCIENCES) QP CODE 2239

ORAL AND MAXILLOFACIAL SURGERY [IF-OS]

Marks: 100

Duration: 180 mins.

LONG ESSAY QUESTIONS

Answer all the questions.

1			Discuss the surgical anatomy and applied part of the scalp and temporal area.	(10)
2			Discuss in detail the applied anatomy of human TMJ	(10)
3			Describe in detail evidence based medicine. Write a note on various research methodologies.	(10)
4			Discuss the management of fluid and electrolyte balance in oral surgery.	(10)
5			Discuss healing of fracture and factors influencing the same.	(10)
6			Discuss Haemostasis and write a note on secondary Hemorrhage.	(10)
7			Discuss the anatomy of external carotid artery and its ligation.	(10)
8			Classify nerve injuries. Write a note on investigations and management.	(10)
9			Discuss the role of corticosteroids and enzyme preparation in maxillofacial surgery.	(10)
10			Discuss the development of face and their anomalies	(10)

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POST-GRADUATE DEGREE MDS PART I EXAMINATION - SEPTEMBER 2025
CONSERVATIVE DENTISTRY & ENDODONTICS PAPER - I
(APPLIED BASIC SCIENCES) QP CODE 2243

CONSERVATIVE DENTISTRY AND ENDODONTICS [IE-CONS]

Marks: 100

Duration: 180 mins.

LONG ESSAY QUESTIONS

Answer all the questions.

1			What is Cementum? Discuss its Histo-morphology & clinical significance in detail.	(10)
2			Discuss the microbiology of dental caries in detail.	(10)
3			What is Resin modified Glass Ionomer Cement? Discuss it in detail.	(10)
4			What role does occlusion play in restorative dentistry and how do occlusal consideration impact the designs of restoration?	(10)
5			What are Cephalosporins? Discuss in detail.	(10)
6			What is Dental Amalgam? Discuss its manipulation in detail.	(10)
7			Explain the various theories of Pin Transmission.	(10)
8			What is Chronic inflammation? Discuss its development in the periapical area.	(10)
9			What are muscles of mastication? Discuss their anatomy in detail.	(10)
10			Discuss the spread of infection across the Facial spaces.	(10)

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POST-GRADUATE DEGREE MDS PART I EXAMINATION - SEPTEMBER 2025
ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS PAPER - I
(APPLIED BASIC SCIENCES) QP CODE 2247

ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS [II-ORTHO]

Marks: 100

Duration: 180 mins.

LONG ESSAY QUESTIONS

Answer all the questions.

1			Describe the anatomy, development of TMJ and explain its role in Orthodontics.	(10)
2			Discuss recent advances in functional matrix theory.	(10)
3			Describe the role of hormones in Orthodontics.	(10)
4			Describe the composition, function and regulation of saliva.	(10)
5			Write in detail about Ethics in Orthodontic practice.	(10)
6			What are homeobox genes? Describe their role in tooth morphogenesis.	(10)
7			What are parametric & non parametric tests? Explain ANOVA in detail.	(10)
8			Write in detail Orthodontic Arch wires used in Orthodontis.	(10)
9			Write a note on Centric relation and centric occlusion.	(10)
10			Discuss Rickett's archial method of growth prediction.	(10)

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POST-GRADUATE DEGREE MDS PART I EXAMINATION - SEPTEMBER 2025
ORAL & MAXILLOFACIAL PATHOLOGY AND ORAL MICROBIOLOGY PAPER - I
(APPLIED BASIC SCIENCES) QP CODE 2251

ORAL AND MAXILLOFACIAL PATHOLOGY AND ORAL MICROBIOLOGY [IH-OPM]

Marks: 100

Duration: 180 mins.

LONG ESSAY QUESTIONS

Answer all the questions.

1			Discuss intercellular junctions and their applied aspects.	(10)
2			Discuss the muscles of mastication and its applied aspect.	(10)
3			Discuss culture media and techniques used in oral microbiology.	(10)
4			Discuss oral microbiome and its role in oral health.	(10)
5			Discuss decalcification techniques in histopathology.	(10)
6			Discuss chemical mediators of inflammation.	(10)
7			List types of hypersensitivity and discuss each type with example.	(10)
8			Discuss meta-analysis and forest plot.	(10)
9			Write in detail structure of keratinized oral mucosa.	(10)
10			Discuss Calcium metabolism	(10)

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POST-GRADUATE DEGREE MDS PART I EXAMINATION - SEPTEMBER 2025

PUBLIC HEALTH DENTISTRY PAPER - I
(APPLIED BASIC SCIENCES) QP CODE 2255

PUBLIC HEALTH DENTISTRY [IL-PHD]

Marks: 100

Duration: 180 mins.

LONG ESSAY QUESTIONS

Answer all the questions.

1			Why fluorides is referred as a "Double Edged Weapon"? Explain in detail the features of acute and chronic fluoride toxicity.	(10)
2			Classify the occupational hazards in dentistry. Elaborate suitably upon the transmission and containment of COVID-19 virus in the operatory settings of a dental clinic.	(10)
3			Classify Indices and explain what are the ideal requisites of an index?	(10)
4			Explain with suitable illustrations the concept of mobile dental clinics.	(10)
5			Classify payment methods for dental care. Explain the concept of private third party pre-payment plans.	(10)
6			Explain the steps in the planning process with suitable illustrations.	(10)
7			Define School Health Services. Explain the common school dental health programs. Add a note on the mid-day meal program of the Government of India.	(10)
8			Explain the etiology of dental caries. What steps should be taken to prevent it as a dentist?	(10)
9			What is potable water? Explore the ways and means in which potable water can be supplied at the community level.	(10)
10			Classify the health care sector in India. Explain in detail about the village level workers.	(10)

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POST-GRADUATE DEGREE MDS PART I EXAMINATION - SEPTEMBER 2025
PEDIATRIC AND PREVENTIVE DENTISTRY
PAPER - I (APPLIED BASIC SCIENCES)
QP CODE 2259

PEDIATRIC AND PREVENTIVE DENTISTRY [IJ-PEDO]

Marks: 100

Duration: 180 mins.

LONG ESSAY QUESTIONS

Answer all the questions.

1			Describe the facial nerve, its course, distribution with applied aspects in children.	(10)
2			Enumerate white blood cell disorders along with dental considerations of child suffering with Leukemia	(10)
3			Compare and contrast Active and Passive immunity	(10)
4			Write Pediatric dose calculation formulae and structure of prescription writing	(10)
5			Describe measures of central tendency.	(10)
6			Discuss the role of Vitamin C in oral health. Add a note on Clinical application.	(10)
7			Discuss indications, contraindications, advantages & disadvantages of Calcium hydroxide cement in children.	(10)
8			Discuss the clinical steps for application of pit and fissure sealants.	(10)
9			Discuss the chronology of eruption of teeth with clinical aspects.	(10)
10			Discuss the development & anatomy of Temporomandibular joint.	(10)

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POST-GRADUATE DEGREE MDS PART I EXAMINATION - SEPTEMBER 2025
ORAL MEDICINE & RADIOLOGY PAPER - I
(APPLIED BASIC SCIENCES) QP CODE 2263

ORAL MEDICINE AND RADIOLOGY [IG-OMR]

Marks: 100

Duration: 180 mins.

LONG ESSAY QUESTIONS

Answer all the questions.

1			Write in detail development of tooth with emphasis on various stages.	(10)
2			Discuss cell mediated immunity	(10)
3			Discuss antiviral agents and their applications in dentistry.	(10)
4			Describe in detail Anaphylaxis	(10)
5			Enumerate theories of pain pathway. Describe the Gate control theory of pain.	(10)
6			Differentiate between the types of neoplasia and add a note on Metastasis.	(10)
7			Enumerate kidney function tests and discuss their significance.	(10)
8			Write in detail the steps in Systematic Review and Meta Analysis.	(10)
9			Discuss role of NSAID's in inflammation.	(10)
10			Discuss gender determination methods in Forensic Odontology.	(10)

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