



GOVERNMENT OF KERALA
DIRECTORATE OF MEDICAL EDUCATION
DIPLOMA IN DENTAL MECHANIC COURSE
REGULAR & SUPPLEMENTARY EXAMINATION APRIL 2024

Time -3hrs.

DMC-F-I-APR-2024

Max.marks: 75

PART-I Paper-I
APPLIED PHYSICS APPLIED CHEMISTRY AND MECHANICS

(Answer section A & B separately and draw diagrams where ever necessary)

SECTION-A

- I. What is temperature? What are the units for measuring temperature? Add a note on thermometers. (13)
- II. Classify simple machines. Explain the different classes of lever. Add a note on clinical significance of lever principle in RPD designing and mechanical advantage. (13)
- III. Write short notes on : (3x4=12)
- a. Malleability and ductility
 - b. Wetting and contact angle
 - c. Mode of heat transfer in liquids

SECTION-B

- I. Explain the general characteristics of metals. Elaborate on the common metals and their alloys used in dental work room. (13)
- II. Define polymerization? What are the differences between addition and condensation polymerization? Explain the chemical stages in addition polymerisation (12)
- III. Write short notes on : (3x4=12)
- a. Electroplating
 - b. Wet corrosion
 - c. Impression disinfection

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PART-I Paper-II
DENTAL MECHANICS
(Answer Section A&B separately and Draw diagrams where ever necessary)

SECTION A

- I** Define Relining and Rebasing? Write its Indications? Explain the procedure for Relining and Rebasing of dentures? (2+2+9=13)
- II** Define Impression Tray? Classify Impression Trays? Describe briefly the method of fabrication of special Tray? (2+2+9=13)
- III** Write short notes on : (3x4=12)
- a. Denture Repair
 - b. Immediate Denture
 - c. Mean Value Articulator

SECTION-B

- I.** Explain in detail the step by step procedure for designing a Removable Partial Denture? (12)
- II.** What is a Major Connector? Classify Connectors? Write in detail the various Maxillary Major connectors? (2+2+9=13)
- VI.** Write short notes on: (3x4=12)
- a. Gingivally Approaching Clasps
 - b. Tripoding
 - c. Parts of a RPD.

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DMC-F-III-APR-2024

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PART-I Paper-III
Applied Oral Anatomy

(Answer Section A&B separately and Draw diagrams where ever necessary)

SECTION A

- I** Draw and explain all the surfaces of the crown of Permanent right Mandibular first premolar. (12)
- II** Describe the differences between maxillary and mandibular canines (13)
- III** Write short notes :
- a. Ridges and Fossa (6)
- b. Mandibular nerve (7)

SECTION-B

- I** Draw and explain all the surfaces of the crown of permanent right maxillary first molar (13)
- II** Tooth numbering systems (12)
- III** Write short notes : (2x6=12)
- a. Occlusal surfaces of maxillary first premolar
- b. Temperomandibular joint

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PART-II Paper-I
DENTAL MECHANICS
(Answer section A & B separately and Draw diagrams wherever necessary)

SECTION A

- I. What is Fixed partial denture? What are its parts. Briefly describe the types of retainers used in FPD (2+3+8=13)
- II. Discuss the general principles and procedures of spruing for casting. (13)
- III. Short Notes: (3x4=12)
- a. Casting crucible
 - b. PKT instruments
 - c. Casting machines

SECTION-B

- I. Define and classify malocclusion. Write in detail about Angle's classification of malocclusion. (2+3+8=13)
- II. Describe the procedure for fabricating metal fused ceramic restoration (12)
- III. Write Short Notes: (3x4=12)
- a. Porosity
 - b. Hawley's appliance
 - c. Andrew's six keys of occlusion

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PART-II Paper-II
DENTAL METATERIALS AND METALLURGY
(Answer Section A&B separately and Draw diagrams where ever necessary)

SECTION A

- I. Classify denture base resins. What are difference between heat and self-cure resins (3+10=13)
- II. Define tarnish and corrosion. Explain the various types of corrosion in dental restorative materials? (3+10=13)
- III **Write short notes on :** (3x4=12)
- a. Die materials
 - b. Fluxes and Antifluxes
 - c. Abrasives and polishing agents

SECTION-B

- IV. Procedure of making silver die (12)
- V. Classification of ideal requirements of dental casting alloys. Explain noble metal alloys in detail (3+10=13)
- VI. Write short notes on : (3x4=12)
- a. Annealing
 - b. Types of solders
 - c. Divestments

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Part II - Paper III
BASIC KNOWLEDGE OF COMPUTER & MEDICAL RECORDS
MANAGEMENT

(Draw diagrams wherever necessary)

- I.** Fill in the blanks: (5x1 = 5)
- a. The first known calculating device is
 - b. The term URL stands for
 - c. A half byte is known as
 - d. is the supercomputer made by India.
 - e. is a system that links computers together and forms a network within a school/office.
- II.** Write short notes on : (5x4 = 20)
- a. External storage devices
 - b. World Wide Web
 - c. Number systems in computer
 - d. Search engines
 - e. Printers
- III.** Write briefly on : (5x6 = 30)
- a. Volatile and non-volatile Memory
 - b. Operating software
 - c. E-mail and its uses
 - d. Networking of computers
 - e. Database management software.
- IV.** Explain in detail: (2x10 = 20)
- a. Medical records - its uses, management and retrieval in dental institutions.
 - b. Hardware of a computer.

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