

**SHORT TERM VOCATIONAL
CERTIFICATE COURSE**

COURSE NAME: DENTAL HYGIENIST ASSISTANT
(12 months Duration)

Prepared by

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HYDERABAD, TELANGANA

DENTAL HYGIENIST ASSISTANT

NAME OF THE COURSE: **DENTAL HYGIENIST ASSISTANT**

SECTOR : PARAMEDICAL

COURSE CODE : DHA

ENTRY QUALIFICATION: SSC

PRE-REQUISITES: Basic Knowledge of Dental Anatomy, physiology

TERMINAL COMPETENCE: After completing this course, students will be able to work as **Dental Assistants/ Medical Assistants.**

DURATION:

12 Months - (40 Hours: English + Course content: 400 Hours)

Introduction of the course: A **Dental Hygienist Assistant** is a vital member of the dental team who assists dental professionals in providing quality oral health care to patients. The course equips students with the necessary skills and knowledge to work alongside dentists, dental hygienists and other dental staff.

Objectives:

1. Patient Care and Education

- Assisting dental professionals in providing patient care during dental treatments.
- Educating patients about oral hygiene practices, including proper brushing, flossing, and nutrition.

2. Preventive Dentistry:

- Promoting preventive measures to maintain oral health.
- Conduct of oral health assessments, including examining teeth and gums.
- Applying fluoride treatments and dental sealants to prevent cavities.

3. Instrument Sterilization and Maintenance:

- Ensuring that dental instruments are properly sterilized and maintained.
- Setting up treatment rooms with necessary instruments and materials.

4. Administrative Tasks:

- Managing patient records, scheduling appointments, and handling billing and
- Assisting with administrative tasks in the dental office.

Skills:

1. Communication Skills:

- **Clear Communication:** Dental hygienist assistants need to communicate effectively with patients, dentists, and other team members. They explain procedures, educate patients on oral hygiene, and provide reassurance.
- **Active Listening:** Listening attentively to patients' concerns and understanding their needs is crucial.
- 2. **Clinical Skills:**
 - **Chairside Assistance:** Assisting during dental procedures by passing instruments, maintaining a sterile field, and ensuring patient comfort.
 - **Radiography:** Taking X-rays and handling imaging equipment.
 - **Oral Health Assessment:** Examining teeth, gums, and oral tissues.
 - **Fluoride Application and Sealants:** Applying preventive treatments.
- 3. **Infection Control and Safety:**
 - **Sterilization:** Properly sterilizing instruments and maintaining a clean environment.
 - **Adherence to Protocols:** Following infection control guidelines to prevent the spread of diseases.

SCHEME OF INSTRUCTION/MODULE:

1. Communicative English: 40 hours (per module)

2. Course: 400 hours (12 months)

| Duration of Course | Theory | | On the Job Training | | Total | |
|-----------------------|--------|-----------|---------------------|-----------|-------|-----------|
| | Hours | weightage | Hours | weightage | Hours | weightage |
| 2 Modules (12 months) | 120 | 30% | 280 | 70% | 400 | 100% |

SYLLABUS

Module 1: Essentials of Dental Anatomy & Physiology

1. Dental Anatomy, formula and Notations (10 Hrs.)
2. Plaque Control & Oral Prophylaxis (10 Hrs.)
3. Gingival Enlargements (10Hrs)
4. Etiology of Periodontium (10 Hrs.)
5. Technical Knowledge of Ultrasonic Scaling (10 Hrs.)
6. Patient education, Motivation & Maintenance (10 Hrs.)

ON THE JOB TRAINING

1. Prepare a model of a Dental tooth
2. Prepare Charts for Dental formula and Notation
3. Contents of X-ray film.
4. Darkroom contents.
5. Intra oral X-ray techniques.

Practical Sessions - units - (140 Hours)

1. Perform hand scaling
2. Processing of X-ray films.
3. Examination and Charting

Module 2: Dental Materials and Instrumentation

1. Sterilization and Asepsis (10 Hrs.)
2. Gypsum and Gypsum Products (10 Hrs.)
3. Impression materials - Impression compound,
 - Zinc Oxide Eugenol impression paste,
 - Alginate (10Hrs)
4. Dental cements - ZOE cement
 - GIC
 - Zinc Phosphate (10 hrs.)
5. Dental Chair and its adjustments (10 Hrs.)
6. Ethics in Dentistry (10 Hrs.)

ON THE JOB TRAINING

1. Chairside assisting procedures
2. Care and use of dental Equipment and Instruments
3. Importance of Disposable Items
4. Manipulation of POP, impression materials loading of trays
5. Participating Dental Camps

Practical Sessions - units - (140 Hours)

1. Manipulation of Dental cements
2. Case History taking
3. Ultra Sonic Scaling

List of Instruments

| S. No. | Item | Quantity |
|--------|----------------------------------|-------------|
| 1 | Dental chair. | 01 Unit |
| 2 | Dental X-ray unit. | 01 Unit |
| 3 | Developer & fixer of X-ray films | As required |
| 4 | Scaler unit. | As required |
| 5 | Light cure unit. | As required |
| 6 | Autoclave. | 01 Unit |
| 7 | Periodontal probe. | 10 |
| 8 | Periodontal mirror | 10 |
| 9 | Tweezer | 10 |
| 10 | Bowl & spatula. | 10 |
| 11 | Wax carver. | 10 |
| 12 | Wax knife. | 10 |
| 13 | Cement spatula. | 10 |
| 14 | Cement callies. | 10 |
| 15 | Condenser. | 10 |
| 16 | Dappen dish. | 10 |
| 17 | Burs | 10 |
| 18 | Straight hand piece. | 01 |
| 19 | Contra angle hand piece. | 01 |
| 20 | Air motor hand piece. | 01 |
| 21 | Trays. | 10 |
| 22 | Extraction forceps. | 02 Kits |
| 23 | Elevator forceps. | 02 Kits |
| 24 | Boiling sterilizer. | 01 |
| 25 | Curettes | 10 |
| 26 | X-Ray films (Dental) | 10 |
| 27 | Kidney tray. | 10 |
| 28 | Suture material. | 02 |
| 29 | Periosteal elevator | 10 |
| 30 | Cold cure powder & liquids. | As required |

Qualifications of Teaching Faculty:

1. Graduation from any recognized university with an aggregate of 55% marks in BDS or Dental Hygienist.
2. 3+ Years of Experience in the clinical setup of academics

Reference books: Textbook for Dental Hygienist –Dr Abdur Rahman

Division of Marks:

Theory: 100 Max. Marks

1. Communicative English: 20 marks
2. Short Questions: 6 x5m = 30 marks
3. Long Questions: 4x10 = 40 marks
4. Multiple Choice Questions: 10x1=10 marks

Practical: 100 Max. Marks

1. External: 40 marks
2. Record/ Mini Project & Viva: 10 marks
3. Internship (OJT): 50 marks

**O/o DIRECTOR OF INTERMEDIATE EDUCATION,
TELANGANA, HYDERABAD
SHORT-TERM VOCATIONAL CERTIFICATE COURSE**

REGD. NO

TIME: 3 HRS

MAX MARKS: 100

**DENTAL HYGIENIST ASSISTANT
MODEL QUESTION PAPER (THEORY)**

SECTION- A

COMMUNICATIVE ENGLISH

20 MARKS

SECTION- B

Note: a) Answer ALL questions.

b) Each question carries **5 Marks**.

6X5M=30 MARKS

1. What is the universal numbering system used to identify teeth in dentistry?
2. Explain the process of professional oral prophylaxis performed by dental hygienists or dentists.
3. Discuss the treatment options available for managing gingival enlargements. How does the choice of treatment depend on the underlying cause and the severity of enlargement?
4. Describe the microbial etiology of periodontal diseases. Which bacteria is commonly associated with periodontal pathogens, and how do they interact with the host's immune system to cause tissue destruction and bone loss?
5. What are the safety precautions and infection control measures associated with ultrasonic scaling?

SECTION- C

Note: a) Answer any **Four** questions.

b) Each question carries **10 Marks**.

4X10M=40 MARKS

1. What is gypsum, and what are its primary properties that make it suitable for use in dental materials? Describe the process of manufacturing gypsum products used in dentistry, such as dental plaster and dental stone.

2. What are the main components of the Impression Compound, and what are its primary uses in dentistry? How does Zinc Oxide Eugenol (ZOE) impression paste work, and what are its advantages and limitations compared to other impression materials?
3. What are the main differences between sterilization and disinfection, and when is each method typically used in healthcare settings? What are some common challenges or obstacles faced when implementing sterilization protocols in resource-limited healthcare settings?
4. Describe the setting reaction of Glass Ionomer Cement (GIC) and its unique properties that make it a versatile dental material. Explain the role of fluoride release in Glass Ionomer Cement (GIC), and how this property contributes to its long-term clinical success?
5. What strategies can dental professionals employ to encourage regular dental visits, reinforce oral hygiene practices, and monitor patients' progress over time?

SECTION-D

10X1=10 Marks

Q.1 What type of bacteria is commonly associated with periodontal pathogens in periodontal diseases?

- A) Porphyromonas gingivitis, Tannerella forsythia, and Treponema denticola (the red complex)
- B) Fusobacterium nucleatum
- C) Streptococcus mutans
- D) Actinomyces viscosus

Q.2 What is the primary method of controlling dental plaque?

- A) Antimicrobial mouth rinses
- B) Scaling and root planning
- C) Flossing
- D) Toothbrushing

Q.3 What are some of the environmental factors that can impact the etiology of periodontal diseases?

- A) Plaque biofilm, dental calculus, and bacterial colonization
- B) Oral hygiene practices, improper bite, and trauma
- C) Tobacco use, stress, and poor nutrition

D) Genetic variations, hormonal changes, and systemic diseases

Q.4 What are the components of effective patient education in dentistry?

A) Ultrasonic scaling, piezoelectric scalers, infection control measures

B) Motivational interviewing, self-efficacy, intrinsic motivation

C) Regular dental visits, professional cleanings, oral exams

D) Clear communication, personalized counseling, interactive learning tools

Q.5 What is the role of motivational interviewing techniques in dental practice?

A) Administer medications, perform dental surgeries, restore tooth functions

B) Diagnose dental diseases, analyze radiographs, provide orthodontic treatments

C) Propose treatment options, explain dental conditions, recommend preventive measures

D) Engage patients in behavior change, address barriers to oral health maintenance, and promote adherence to treatment plans

Q. 6 What is the primary clinical application of Zinc Oxide Eugenol (ZOE) cement?

A) Bonding orthodontic brackets

B) Permanent cementation of crowns and bridges

C) Restoration of carious lesions

D) Temporary cementation of crowns and bridges

Q.7 What is the setting reaction of Glass Ionomer Cement (GIC)?

A) A polymerization reaction

B) An acid-base reaction

C) A coagulation reaction

D) A condensation reaction

Q.8 What are the advantages of Zinc Phosphate cement?

A) High compressive strength and excellent marginal sealing properties

B) Fluoride release and adhesion to tooth structure

C) Low solubility and biocompatibility

D) Ease of mixing and placement

Q.9 What are the primary ergonomic considerations in the design of dental chairs?

- A) Availability of Bluetooth connectivity, built-in speakers, and USB ports
- B) Type of upholstery material, color options, and chair size
- C) Number of buttons on the control panel and the visibility of LED indicators
- D) Adjustable seat height, backrest inclination, armrests, and headrest positioning

Q. 10 What is an important ethical consideration regarding patient autonomy in dental treatment?

- A) Withholding information from the patient to influence their decision
- B) Offering incentives for patients to accept particular treatment options
- C) Making decisions on behalf of the patient without their consent
- D) Respecting the patient's right to make informed decisions

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MODEL QUESTION PAPER (PRACTICAL)

Note: a) Answer ALL questions.

b) Each question carries **10 Marks.** **4X10=40MARKS**

1) Describe in detail parts of the Maxilla and Mandible.

(Draw diagrams wherever necessary.)

2) Describe the processing of x-ray film in detail.

3) Define sterilization. Write about Autoclave.

4) Mention the dental instruments used for the following procedures:

a) Root canal treatment

b) Dental Extractions

Record/Mini Project & Viva

10 Marks

Internship/OJT

50 Marks