**Dental radiography and BMD BVORAD-502**

**UNIT 1**

Details of Working Mechanism (Physics) of Orthopantography,Details of the History of Orthopantomography (OPG), Details of the Basic Principle and Working Mechanism for Orthopantomography,Details of Orthopantomography Equipment Details of the Generations of OPG, Details of Artifacts in OPG,Clinical Application of Orthopantography, Details of Clinical Applications of OPG with respect to Impacted Teeth, Periodontal bone loss and Periapical Involvement, Dental Implants

**UNIT 2**

Pre and Post-operative Orthodontic Assessment, Diagnosis of developmental anomalies,Temporomandibular Joint (TMJ) Disorders,DentalBridge,Salivary Stones (Sialolithiasis), Details of Positioning and Radiation Safety in OPGDetails of patient preparation in OPG, Details of the technique used in OPG, Details of Positioning in Cephalometry, Details of Radiation Safety in OPG with reference to following points:-

Licensed Dentist and X-ray Machine Registrant Responsibilities

Patient Protection

Responsibilities of Dental Personnel Operating X-ray Equipmen

**UNIT 3**

Details of Working Mechanism (Physics) of Bone Densitometry, Details of History of Bone Densitometry, Indications for BMD Testing, Details of Bone Physiology and Remodelling,Details of Basic Principle of BMD,Details of the following Types of Bone Densitometry Equipment’s,Single Photon Absorptiometry (SPA), Dual Photon Absorptiometry (DPA), Dual-Energy X-ray Absorptiometry (DXA or DEXA) Dual X-ray Absorptiometry and Laser (DXL), Single Energy X-ray absorptiometry (SEXA), Quantitative Computed Tomography (QCT), Quantitative Ultrasound (QUS),Digital X-ray Radiogrammetry (DXR), Details of Artifacts

**UNIT 4**

Details of Limitations of BMD, Details of Interpretation and Clinical Application of Bone Densitometry,Identify the Clinical Application of Bone Densitometry Demonstrate the Image Analysis and Interpretation of BMD Study, Discuss What is Osteopenia, Discuss What is Osteoporosis,Demonstrate different Positioning of the patient, Demonstrate the protocol for Radiation Safety in Bone Densitometry Demonstrate Patient Preparation in Bone Densitometry, Demonstrate DEXA/DXA Positioning with reference to following points,Routine Positioning, Additional Positioning, Peripheral Measurements, Demonstrate the protocol for Radiation Safety with reference to following points,PatientDose,Radiation

Protection for the Patient, Radiation Protection for the Technologist, Radiation Protection to Public