SPREAD OF CURRICULUM

I Applied Anatomy:

Prenatal growth of head: Stages of embryonic development, origin of head, origin of face, origin of teeth.

Postnatal growth of head: Bones of skull, the oral cavity, development of chin, the hyoid bone, general growth of head, face growth.

Bone growth: Origin of bone, composition of bone, units of bone structure, schedule of Ossification, mechanical properties of bone, roentgen graphic appearance of bone.

Assessment of growth and development:

Growth prediction, growth spurts, the concept of normality and growth increments of growth, differential growth, gradient of growth, methods of gathering growth date.

II PHYSIOLOGY:

- **Endocrinology and its disorders**

  (Growth hormone, thyroid hormone, parathyroid hormone, ACTH) pituitary gland hormones, thyroid gland hormones, parathyroid gland hormones

- **Calcium and its metabolism**
- **Nutrition-metabolism and their disorders:** proteins, carbohydrates, fats, vitamins and minerals.
- **Muscle physiology**
- **Craniofacial Biology:** ell adhesion molecules and mechanism of adhesion
- **Bleeding disorders in orthodontics: Hemophilia**

III DENTAL MATERIALS:

- **Gypsum products:** dental plaster, dental stone and their properties, setting reaction etc.
- **Impression materials:** impression materials in general and particularly of alginate impression material.
- **Acrylics:** chemistry, composition physical properties

- **Composites:** composition types, properties setting reaction
- **Banding and bonding cements:** Zn (P04)2, zinc silicophosphate, Zinc polycarboxylate, resin cements and glass lonomer cements
- **Wrought metal alloys:** deformation, strain hardening, annealing, recovery, recrystallization, grain growth, properties of metal alloys
- **Orthodontic arch wires:** stainless steel gold, wrought cobalt chromium nickel alloys, alpha&beta titanium alloys
- **Elastics:** Latex and non-latex elastics.
- **Applied physics,** Bioengineering and metallurgy.
- **Specification and tests methods** used for materials used in Orthodontics
- **Survey of all contemporary literature and Recent advances** in above – mentioned materials.

IV. GENETICS:

Cell structure, DNA, RNA, protein synthesis, cell division

Chromosomal abnormalities

Principles of orofacial genetics

Genetics in malocclusion

Molecular basis of genetics

Studies related to malocclusion

Recent advances in genetics related to malocclusion

Genetic counseling

Bioethics and relationship to Orthodontic management of patients.

V. PHYSICAL ANTHROPOLOGY:

- Evolutionary development of dentition
- Evolutionary development of jaws.

VI. PATHOLOGY:

- Inflammation
- Necrosis

VII. BIOSTATISTICS

- Statistical principles
- Data Collection
- Method of presentation
- Method of Summarizing
- Methods of analysis - different tests/errors
- Sampling and Sampling technique
- Experimental models, design and interpretation
- Development of skills for preparing clear concise and cognent scientific abstracts and publication

VIII. APPLIED RESEARCH METHODOLOGY IN ORTHODONTICS:

- Experimental design
- Animal experimental protocol
- Principles in the development, execution and interpretation Orthodontics
- Critical Scientific appraisal of literature.

IX. APPLIED PHARMACOLOGY

X. ORTHODONTIC HISTORY;

- Historical perspective,
- Evolution of orthodontic appliances,

- Pencil sketch history of Orthodontic peers
- History of Orthodontics in India

XI. CONCEPTS OF OCCLUSION AND ESTHETICS:

- Structure and function of all anatomic components of occlusion,
- Mechanics of articulation,
- Recording of masticatory function,
- Diagnosis of occlusal dysfunction,
- Relationship of TMJ anatomy and pathology and related neuromuscular physiology,

XII. ETIOLOGY AND CLASSIFICATION OF MALOCCLUSION:

- A comprehensive review of the local and systemic factors in the causation of malocclusion
- Various classifications of malocclusion

XIII. DENTOFACIAL ANOMALIES:

- Anatomical, physiological and pathological characteristics of major groups of developmental defects of the orofacial structures.

XIV. CHILD AND ADULT PSYCHOLOGY:

- Stages of child development.
- Theories of psychological development.
- Management of child in orthodontic treatment.
- Management of handicapped child.
- Motivation and Psychological problems related to malocclusion / orthodontics
- Adolescent psychology

- Behavioral psychology and communication

XV. DIAGNOSTIC PROCEDURES AND TREATMENT PLAN

- Emphasis on the process of data gathering, synthesis and translating it into a Treatment plan
- Problem cases - analysis of cases and its management
- Adult cases, handicapped and mentally retarded cases and their special problems
- Critique of treated cases.

XVI. Cephalometrics

- Instrumentation
- Image processing
- Tracing and analysis of errors and applications
- Radiation hygiene
- Advanced Cephalometrics techniques
- Comprehensive review of literature
- Video imaging principles and application.

XVII. PRACTICE MANAGEMENT IN ORTHODONTICS:

- Economics and dynamics of solo and group practices
- Personal management
- Materials management
- Public relations
- Professional relationship
- Dental ethics and jurisprudence
- Office sterilization procedures

• Community based Orthodontics.

XVIII. CLINICAL ORTHODONTICS:

Myofunctional Orthodontics:

Basic principles

Contemporary appliances - their design and manipulation

Case selection and evaluation of the treatment results

Review of the current literature.

Dentofacial Orthopedics

• Principles

• Biomechanics

• Appliance design and manipulation

• Review of contemporary literature

Cleft Up and palate rehabilitation:

• Diagnosis and treatment planning

• Mechanotherapy

• Special growth problems of cleft cases

• Speech physiology, pathology and elements of therapy **as** applied to orthodontics

• Team rehabilitative procedures.

Biology of tooth movement:

• Principles of tooth movement-review

• Review of contemporary literature

• Applied histophysiology of bone, periodontal ligament

• Molecular and ultra cellular consideration in tooth movement

Orthodontic / Orthognathic surgery:

- Orthodontist' role in conjoint diagnosis and treatment planning
- Pre and post-surgical Orthodontics
- Participation in actual clinical cases, progress evaluation and post retention study
- Review of current literature

Ortho / Perio / Prostho inter relationship

- Principles of interdisciplinary patient treatment
- Common problems and their management

Basic principles of Mechanotherapy

Includes Removable appliances and fixed appliances

- Design
- Construction
- Fabrication
- Management
- Review of current literature on treatment methods and results

Applied preventive aspects in Orthodontics

- Caries and periodontal disease prevention
- Oral hygiene measures
- Clinical procedures

Interceptive Orthodontics

- Principles
- Growth guidance
- Diagnosis and treatment planning

• Therapy emphasis on:

a. Dento-facial problems

b. Tooth material discrepancies

c. Minor surgery for Orthodontics

Retention and relapse

• Mechanotherapy - special reference to stability of results with various procedures

• Post retention analysis

• Review of contemporary literature

XIX. RECENT ADVANCES LIKE:

• Use of implants

• Lasers

• Application of F.E.M.

• Distraction Osteogenesis

Weekly distribution of teaching /clinical sessions:

I M.D.S.TIME TABLE (FOR Ist 6 MONTHS)

DAY	9.00 AM – 12.15 PM	1.00 PM- 3.00 PM
Monday	Preclinical work / Case Discussion	Basic sciences/ Preclinical work
Tuesday	Preclinical work / Seminar	Basic sciences/ Preclinical work
Wednesday	Preclinical work / Case	Basic sciences/

	Discussion	Preclinical work
Thursday	Preclinical work / Journal club	Basic sciences/ Preclinical work
Friday	Preclinical work / Journal club	Basic sciences/ Preclinical work
Saturday	Thesis pilot study/ Basic sciences	

Including TYPODONT WORK (FOR 2 MONTHS)

M.D.S TIME TABLE (FOR NEXT 2 1/2 YEARS)

Day	8.00- 9.30AM	9.30-12.15 PM	1.00-3.00pm
Monday	Case Discussion	Clinics	Clinics
Tuesday	Seminar	Clinics	Clinics
Wednesday	Case Discussion	Clinics	Clinics
Thursday	Journal club	Clinics	Clinics
Friday	Journal club	Clinics	Clinics
Saturday	Thesis work/L.D	Thesis work/L.D	Thesis work/L.D

PRE-CLINICAL TECHNIQUE REQUIREMENT

DEPT. OF ORTHODONTICS

Periodic Internal assessment for I year M.D.S are done based on the following

1. Pre clinical wire bending
    i) Quality
    ii) Timely completion
    iii) Stage viva for each wire bending exercise
2. Conducting tests & viva periodically
3. Progress of Library Dissertation
4. Submission of Protocol for main dissertation
5. Journal club presentations on classical articles.
6. Study model & Cephalometric analysis discussion
7. Clinical case discussion & Case Presentation

II. PRE-CLINICAL EXERCISES

1. General Wire bending exercises to develop the manual dexterity
2. Clasps, Bows and springs used in the removable appliances.
3. Soldering and welding exercises.
4. Fabrication of removable habit breaking, mechanical and functional appliances, also all types of space maintainers and space regainers.
5. Bows
6. Models
7. Cephalometric tracings and various Analyses, also superimposition methods.

8. Typodont exercises like Band making, Bracket positioning

9. Clinical Photographs

10. Computerized imaging

11. Preparation of surgical splints, and splints for TMJ problems

12. Handling of equipments like vacuum forming appliances and hydro solder etc

SKILLS:

II. Pre - Clinical Exercises

A general outline of the type of exercises is given here.

1. General Wire bending exercises to develop the manual dexterity.
2. Clasps, Bows and springs used in the removable appliances.
3. Soldering and welding exercises.
4. Fabrication of removable habit breaking, mechanical and functional appliances, also all types of space maintainers and space regainers.
5. Bonwill Hawley Ideal arch preparation.
6. Construction of orthodontic models trimmed and polished preferably as per specifications of Tweed or A.B.O.
7. Cephalometric tracing and various Analyses, also superimposition methods.
8. Fixed appliance typhodont exercises.

A) Training shall be imparted in one basic technique i.e. Standard Edgewise / Begg technique or its derivative / Straight wire etc., with adequate exposure to other techniques.

B) Typhodont exercise

i. Band making

ii. Bracket positioning and placement

iii. Different stages in treatment appropriate to technique taught

9. Clinical photography

10. Computerized imaging

11. Preparation of surgical splints, and splints for TMJ problems.

12. Handling of equipments like vacuum forming appliances and hydro solder etc.

First Year

Basic Pre-Clinical Exercise Work for the MDS Students: First 6 Months

1. NON-APPLIANCE EXERCISES

All the following exercises should be done with 0.7 or 0.8mm wire

Sl.No.	Exercise	No.
1	Straightening of 6" & 8" long wire	1
2	Square	1
3	Rectangle	1
4	Triangle of 2" side	1
5	Circle of 2" side	1
6	Bending of 5U's	1
7	Bending of 5V's	1

2. Clasps

Sl.No.	Exercise	No.
1	¾ Clasps	2

2	Full clasps	2
3	Triangular Clasps	2
4	Adam's clasp - upper molar	2
5	Adam's Clasp - lower molar	2
6	Adam's Clasp - Pre-molar	2
7	Adam's Clasp - Incisor	2
8	Modification of Adam's - With Helix	2
9	Modification of Adam's - With distal extension	2
10	Modification of Adam's - With soldered tube	2
11	Duyzing Clasps on Molars	2
12	Southend Clasp	1

3. LABIAL BOWS

Sl.No.	Exercise	No.
1	Short labial bow (upper & lower)	1
2	Long labial bow (upper & lower)	1
3	Robert's retractor	1
4	High labial bow-with apron springs	1
5	Mill's labial bow	1
6	Reverse loop labial bow	1
7	Retention labial bow soldered to Adam's clasp	1
8	Retention labial bow extending distal to second molar	1
9	Fitted labial bow	1
10	Split labial bow	1
11	Begg labial bow	1

4. SPRINGS

Sl.No.	Exercise	No.
1	Finger spring-mesial movement	2
2	Finger spring-distal movement	2
3	Double cantilever spring	2
4	Flapper spring	2
5	Coffin spring	2
6	T spring	2

5. CANINE RETRACTORS

Sl.No.	exercise	No.
1	U loop canine retractor	2
2	Helical canine retractor	2
3	Palatal canine retractor	2
4	Self -supporting canine retractor	2
5	Self -supporting canine retractor	2

6. APPLIANCES

Sl.No.	**Exercise**	**No**
1	Hawley's retention appliance with anterior bite plane	1
2	Upper Hawley's appliance with posterior bite plane	1
3	Upper expansion appliance with coffin spring	1
4	Nance palatal arch	1
5	Upper expansion appliance with expansion screw	1
6	Habit breaking appliance with tongue crib	1
7	Oral screen and double oral screen	1
8	Lip bumper	1
9	Splint for Bruxism	1

10	Catalans appliance	1
11	Activator	1
12	Bionator	1
13	Frankel-FR 2 appliance	1
14	Twin block	1
15	Lingual arch - soldered and removable	2
16	TPA – soldered and removable	2
17	Quad helix - soldered and removable	2
18	Bihelix	1
19	Utility arches	1
20	Pendulum appliance	1

7. Soldering exercises

Sl.No.	***Exercise***	No.
1	Star	1
2	Comb	1
3	Christmas tree	1
4	Soldering buccal tube on molar bands	1
5	Soldered TPA, LA, Quad Helix	3

8. Welding exercises

- Pinching and welding of molar, premolar, canine and Incisor bands
- Welding of buccal tubes & brackets on molar bands & incisor bands

9. Impression making and Model analysis

Impression of upper and lower dental arches
PREPARATION OF STUDY MODEL - 1 All the permanent dentition analyses to be done.
PREPARATION OF STUDY MODEL - 2 All the permanent dentition analyses to be done.
PREPARATION OF STUDY MODEL - 3 all the mixed dentition analyses to be done.

10. Cephalometric tracing

Cephalometric Exercises	
1	Lateral cephalogram to be traced in five different colors and super imposed to see the accuracy of tracing
2	Steiner's analysis
3	Down's analysis
4	Tweed analysis
5	Rickett's analysis
6	Burstone analysis
7	Rakosi's analysis
8	McNamara analysis
9	Bjork analysis
10	Coben's analysis
11	Harvold's analysis
12	Soft tissue analysis - Holdaway and Burstone

11. Basics of Clinical Photography including Digital Photography

14. Light wire bending exercises for the Begg technique

Sl.No.	**Exercise**
1	Wire bending technique on 0.016' wire circle, "Z" , Omega
2	Bonwill-Hawley diagram
3	Making a standard arch wire
4	Inter maxillary hooks- Boot leg and Inter Maxillary type
5	Upper and Lower arch wires
6	Bending a double back arch wire
7	Bayonet bends (vertical and horizontal offsets)
8	Stage-III arch wire
9	Torquing auxiliary (upper).
10	Reverse Torquing (lower).
11	Up righting spring.

15. Typhodont exercises: (Begg or P.E.A. method)

Sl.No	Exercise
1	Teeth setting in Class-II division I malocclusion with maxillary anterior Proclination and mandibular anterior crowding
2	Band pinching, welding brackets and buccal tubes to the bands
3	Bonding
4	Stage- I
5	Stage-II
6	Pre Stage-III

7	Stage-III

CLINICAL WORK:

Once the basic pre-clinical work is completed the students can take up clinical cases and the clinical training is for the two and half years.

Each postgraduate student should start with a minimum of 50 cases of his/her own. Additionally he/she should handle a minimum of 20 transferred cases.

Each postgraduate student should have at least *TEN (10) finished* cases of their own and 10 transferred cases by the end of third year for becoming eligible to appear for the final exams.

The type of cases can be as follows:

i. Removable active appliance cases
ii. Class-I malocclusion with crowding
iii. Class-I malocclusion with bi-maxillary protrusion
iv. Class-II division-1
v. Class-II division-2
vi. Class-III (Orthopedic Surgical, Orthodontic cases)
vii. Interdisciplinary cases
viii. Removable functional appliance cases like activator, Bionator, functional regulator, twin block and new developments- 5 cases
ix. Fixed functional appliances - Herbst appliance, jasper jumper etc - 5 cases
x. Dento-facial orthopedic appliances like head gears, rapid maxillary expansion niti expander etc., - 5 cases
xi. Appliance for arch development such as molar distalization -m 5 cases
xii. Fixed mechano therapy cases (Begg, PEA, Tip edge, Edgewise)
xiii. Retention procedures of above treated cases.

Other work to be done during FIRST YEAR

1. Seminars: One Seminar per week to be conducted in the department. A minimum of five seminars should be presented by each student each year
2. Journal club: Two Journal clubs per week to be conducted in the department. A minimum of five seminars should be presented by each student each year.
3. Protocol for dissertation to be submitted on or before the end of six months from the date of admission.
4. Under graduate classes: Around 4-5 classes should be handled by each post graduate student per year.
5. Field survey: To be conducted and submit the report.
6. Inter-departmental meetings: should be held once in a month.
7. Case discussions should be held twice a week.
8. Field visits: To attend dental camps and to educate the masses
9. Basic subjects classes
10. Internal assessment or Term paper

Second Year:

The clinical cases taken up should be followed under the guidance. More case discussions and cases to be taken up. Other routine work as follows.

1. Seminars; One Seminar per week to be conducted in the department. Each student should present a minimum of five seminars each year.

2. Journal club: One Journal club per week to be conducted in the department each student

3. Library assignment to be submitted on or before the end of six months.

4. Undergraduate classes: each post-graduate student should handle around 4-5 classes.

5. Inter-departmental meetings: Should be held once in a month

6. Field visits: To attend dental camps and to educate the masses.

7. Internal assessment or term paper.

8. Dissertation work: On getting the approval from the university work for the dissertation to be started.

Third Year:

The clinical cases taken up should be followed under the guidance. More cases discussions and cases to be taken up. Other routine work as follows:

1. Seminars One Seminar per week to be conducted in the department. Each student should present a minimum of five seminars each year.
2. Journal Club: One Journal club per week to be conducted in the department. A minimum of five seminars should be presented by each student each year
3. Undergraduate classes: each post - graduate student, should handle around 4-5 classes.
4. Inter-departmental meetings: Should be held once in a month.
5. The completed dissertation should be submitted six months before the final examination
6. Case discussions
7. Field visits: To attend dental camps and to educate the masses.
8. Finishing and presenting the cases taken up.
9. Preparation of finished cases and presenting the cases (to be presented for the examination)
10. Mock examination

DISSERTATION:

A. The protocol for dissertation should be submitted on or before the end of six months from the date of admission as per calendar of events to the Registrar, NTR University of Health Sciences, Andra Pradesh, through proper channel.

B. The completed dissertation should be submitted 6 months before the final examination as per calendar of events to the Registrar (Evaluation), NTR University of Health Sciences, Andra Pradesh through proper channel.

C. The dissertation should not be just a repetition of a previously undertaken study but it should try to explore some new aspects.

D. Approval of dissertation is essential before a candidate appears for the University examination.

MONITORING LEARNING PROGRESS:

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects.

SCHEME OF EXAMINATION:

A. Theory : 300 Marks

Written examination shall consist of four question papers each of three hours duration. Total marks for each paper will be 100. Paper I, II and III shall consist of two long questions carrying 2 marks each and 6 short' essay questions each carrying 10 marks. Paper IV will be on Essay.

Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows:

Paper-1: Applied Basic Sciences: Applied anatomy, Physiology, Dental Materials, Genetics, Pathology, Physical Anthropology, Applied Research methodology, Bio-Statistics and Applied Pharmacology.

Paper II: Orthodontic history, Concepts of occlusion and esthetics, Child and Adult Psychology, Etiology and classification of malocclusion, Dentofacial Anomalies, Diagnostic procedures and treatment planning in Orthodontics, Practice management in Orthodontics

Paper III: Clinical Orthodontics

Paper IV: Essay

**** The topics assigned to the different papers are generally evaluated under those sections. However a strict division of the subject may not be possible and some overlapping of topics is inevitable.***

Students should be prepared to answer overlapping topics.

B. Practical / Clinical Examination : 200 Marks

Exercise No: 1: Functional Case : 50 Marks

Selection of case for functional appliance and recording of construction bite.

Fabrication and delivery of the appliance the next day.

Exercise No: 2: Multiband exercise : 50 Marks

1. Stage III with auxiliary springs **(OR)**

2. Bonding of SWA brackets and construction of suitable arch wire.

Exercise No: 3: Display of records of the treated cases (min of 10 cases) 10 cases 75 Marks

Exercise No: 4: long case discussions: 25 Marks

No	Exercise	Marks allotted	Approximate Time
1	Functional appliance	50	1 hour
2	III stage mechanics / Bonding and arch wire fabrication	50	1 hr 30 min
3	Display of case records (a minimum of 10 cases to be presented with all the cases)	75	1 hour
4	Long cases	25	2 hours

C. Viva Voce 100 Marks

Viva-Voce examination: 80 marks

All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expression, interpretation of data and communication skills. It includes all components of course contents. It includes presentation and discussion on dissertation also.

Pedagogy Exercise: 20 marks

A topic be given to each candidate in the beginning of clinical examination. He/she is asked to make a presentation on the topic for 8-10 minutes.

THESIS REQUIREMENT

Dissertation:

Every candidate admitted to MDS Degree Course must register his / her dissertation topic, approved by the college PG Training Committee consisting of Principal, Vice-Principal, the Professors of the specialty, within first 6 months after the commencement of the course.

The application for registration of dissertation topic must be sent through the Principal forwarded by the Professor / HOD concerned and must be accompanied by the proceedings of the college PG Training committee. The candidate's admission registration number should be quoted if all correspondence. If the dissertation topic is not registered within 6 months without special permission from the Vice-Chancellor (which will be granted only under extraordinary circumstances), the student will lose 6 months and will be permitted to appear for the final examinations 6 months later than the regular batch.

The University will register such dissertation topic and assign a dissertation registration number. No change in the dissertation topic shall be made without prior approval of the university.

The aim of dissertation is to train a postgraduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of research study, collection of data, critical analysis and comparison of results and drawing conclusions.

Before final submission, the dissertation should be presented to the in-house

Committee consisting of the faculty and students of all PG departments related to the topic and the approved recommendations are incorporated.

The dissertation should be written under the following headings:

1) Introduction.

2) Aims and objectives of study.

3) Review of literature

4) Material and Methods

5) Results

6) Discussion

7) Conclusion

8) Summary

9) Bibliography

The written text of dissertation shall be not less than 50 pages and shall not exceed 100 pages including references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 Size, 8.27"x11.69") and bound properly. Photos, charts & graphs can be attached wherever necessary. Spiral binding should not be used. The dissertation shall be certified by the guide and head of the department and forwarded by the Principal to the University.

Four copies of dissertation thus prepared shall be submitted to the Joint / Deputy Registrar (Exams), between 2 and 2 1/2 years of commencement of the course. In case of the candidates who are granted exemption of one-year study period of degree course the dissertation should be submitted within *2* years of commencement of the course.

If a candidate fails to registrar the dissertation and submit within the stipulated time he/she will not allowed to appear for examination with his her regular batch and it will be postponed to the next examination.

The examiners appointed by the University shall value the dissertation. approval of dissertation work is an essential precondition for a candidate's eligibility to appear in the University examination. If corrections / modification

Evaluation of dissertation:

1) Four examiners prior to the commencement of the University theory examination shall evaluate the dissertation.

2) Two copies of report on the dissertation shall be sent by each of the Examiners to the Joint/Deputy Registrar (Examinations) of this University. The Joint/Deputy Registrar (Examinations) shall forward a copy of the report to the Chairman of the Board of Examiners who will consolidate the reports at the time of clinical examination.

3) The candidate shall be permitted to appear for the final examinations only if the dissertation is approved. When not approved, the reasons shall be recorded Ex: with a part effect by the examiner so that the student can make necessary corrections for resubmission for the next exam.

4) If the candidate fails in the written / practical examination but his dissertation is approved the dissertation shall be carried over for the subsequent examination(s).

Guide:

The academic qualification required for recognition by this University is as per the norms of DCI .The teaching experience required to act as PG teacher to guide dissertation and be eligible to act as PG examiner is, a total of eight (8) years teaching experience obtained in a dental college out of which at least five (5) years teaching experience shall be in a dental college which is conducting PG course in the concerned specialty. A PG teacher should have guided at least one candidate's dissertation to be eligible as an examiner

Details and duration of Viva voice

Details of viva voice:

Practical / Clinical Examinations: Practical / Clinical examination shall be conducted to test the knowledge and the competence of candidates for undertaking independent work as a specialist / teacher.

1st day

1. Examination and Case History taking of myo- functional appliance case for fabrication and delivery on the 2nd day. Chair side viva.
2. Bite registration & Chair side viva.
3. Clinical Exercise (in the form of Begg's Stage III wire bending

   or Bracket placement in PEA technique etc.)
4. Loop preparation for space closure
5. Examination of the treated cases
6. Examination of the pre clinical exercises.
7. Handing over of the selected long case for next day presentation.

2nd day

8. Delivery of the previous day's Functional Appliance. Chair side viva.

9. Presentation of Long Case for Discussion

10. Dissertation presentation & pedagogy and Viva-voce

Classification system and marks for I & II classes:

Criteria for Pass & Award of Division:

- A minimum of 50 % marks in theory
- A minimum of 50% marks in practical/clinical & Viva put together

Division	Percentage Aggregate of Marks (Theory + Practical +Viva)	Remarks
Pass	50%	Single/Multiple attempts
Second Class	51 to 64%	Part-l & II shall be cleared in Single & first attempt only
First Class	65 to 74%	
Distinction	75% & above	