

SCHEME OF EXAMINATION

MAHARISHI MARKANDESHWAR (DEEMED TO BE UNIVERSITY), MULLANA (AMBALA)

SR. NO.	NAME OF SUBJECT/PAPER	WRITTEN PAPER	MARKS			TOTAL	TIME	PRACTICAL VIVA	VIVA-VOCE	MARKS			TOTAL	GRAND TOTAL
			* VIVA - VOCE (Theory)	INTERNAL ASSESSMENT						INTERNAL ASSESSMENT	TOTAL			
1	General Anatomy including Embryology, Osteology and Histology	70	20	10	100	3 hrs.	90	-	10	100	200			
2	General Human Physiology & Biochemistry	70	20	10	100	3 hrs.	90	-	10	100	200			
3	Dental Anatomy, Embryology & Oral Histology	70	20	10	100	3 hrs.	90	-	10	100	200			
BDS 2nd YEAR														
1	General Pathology & Microbiology	70	20	10	100	3 hrs.	90	-	10	100	200			
2	General & Dental Pharmacology and Therapeutics	70	20	10	100	3 hrs.	90	-	10	100	200			
3	Dental Materials	70	20	10	100	3 hrs.	90	-	10	100	200			
4	Pre-clinical Conservative	-	-	-	-	-	60	20	20	100	100			
5	Pre-clinical Prosthodontics	-	-	-	-	-	60	20	20	100	100			
BDS 3rd YEAR														
1	General Medicine	70	20	10	100	3 hrs.	90	-	10	100	200			
2	General Surgery	70	20	10	100	3 hrs.	90	-	10	100	200			
3	Oral Pathology & Oral Microbiology	70	20	10	100	3 hrs.	90	-	10	100	200			
BDS 4th YEAR														
1	Prosthodontics and Crown & Bridge	70	20	10	100	3 hrs.	90	-	10	100	200			
2	Conservative Dentistry & Endodontics	70	20	10	100	3 hrs.	90	-	10	100	200			
3	Oral & Maxillofacial Surgery	70	20	10	100	3 hrs.	90	-	10	100	200			
4	Paediatric & Preventive Dentistry	70	20	10	100	3 hrs.	90	-	10	100	200			
5	Oral Medicine & Radiology	70	20	10	100	3 hrs.	90	-	10	100	200			
6	Orthodontics and Dentofacial Orthopaedics	70	20	10	100	3 hrs.	90	-	10	100	200			



7	Periodontology	70	20	10	100	3 hrs.	90	-	10	100	200
8	Public Health Dentistry	70	20	10	100	3 hrs.	90	-	10	100	200
		560	160	80	800		720	-	80	800	1600

* Theory Viva-Voca to be held at the time of Practical.

Theory Paper of Physiology & Biochemistry for BDS 1st year and Pathology & Microbiology for BDS 2nd year shall be having two parts i.e. Part - I & Part - II and each part will carry 35 marks. Part - I & Part - II have to be attempted on separate Answer Books.

Written examination :-

1. The written examination in each subject shall consist of one paper of three hours duration and shall have maximum marks of 70.
2. In the subjects of Physiology & Biochemistry and Pathology & Microbiology each paper will be divided into two parts, A and B of equal marks (Physiology Paper - A and Biochemistry Paper - B, and Pathology Paper - A and Microbiology Paper - B).
3. The question paper should contain different types of questions like essay and short notes.
4. The nature of questions set, should be aimed to evaluate students of different standards ranging from average to excellent.
5. The questions should cover as broad an area of the content of the course. The essay questions should be properly structured and the marks specifically allotted.

A candidate should have passed the subject of Environmental Studies in any class of BDS i.e. 1st to final year only once. The marks of Environmental Studies will be mentioned in DMC but they will not be include in Grand Total Marks. Without passing the subject of Environmental Studies he/she is not eligible for BDS Degree.

BDS 5TH YEAR :- ONE YEAR COMPULSORY ROTATORY INTERNSHIP



1. PROSTHODONTICS AND CROWN & BRIDGE

SCHEME OF EXAMINATION:

A. Theory: Part-I :	Basic Sciences Paper	- 100 Marks
Part-II :	Paper-I, Paper-II & Paper-III	- 300 Marks
(100 Marks for each Paper)		

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part I examination consists of two essays of 25 marks each and 10 short answers of 5 marks each. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I, Paper-II and Paper III shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Distribution of topics for each paper will be as follows:

Part-I : *Applied Basic Sciences: Applied Anatomy*
 Nutrition & Biochemistry, Pathology & Microbiology, virology, Applied Dental anatomy & histology, Oral pathology & oral Microbiology, Adult and geriatric psychology. Applied dental materials.

Part-II

Paper-I : *Removable Prosthodontics and Implant supported prosthesis (Implantology), Geriatric dentistry and Cranio facial Prosthodontics*

Paper-II : *Fixed Prosthodontics, Occlusion, TMJ and esthetics.*

Paper-III : Essays (descriptive and analyzing type questions)

**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.*

A. Practical / Clinical Examination : 200 Marks

1. Presentation of treated patients and records during their 3 years

Training period	35 Marks
a. C.D.	1 mark
b. R. P.D.	2 marks
c. F.P.D. including single tooth and surface restoration	2 marks
d. I.S.P.	5 marks
e. Occlusal rehabilitation	5 marks
f. T.M.J.	5 marks
g. Maxillofacial Prosthesis	5 marks
h. Pre Clinic Exercises	10 marks

2. Presentation of Clinical Exam CD patient's prosthesis including insertion 75 Marks

1.	Discussion on treatment plan and patient review	10 marks
2.	Tentative jaw relation records	5 marks
3.	Face Bow – transfer	5 marks
4.	Transferring it on articulators	5 marks
5.	Extra oral tracing and securing centric and protrusive/lateral, record	15 marks
6.	Transferring records on articulator and programming.	5 marks
7.	Selection of teeth	5 marks
8.	Arrangement of teeth	10 marks
9.	Waxed up denture trial	10 marks



10.	Check of Fit, insertion and instruction of previously processed characterised, anatomic complete denture Prosthesis	5 marks
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ALL STEPS WILL INCLUDE CHAIRSIDE, LAB AND VIVA VOCE

3. Fixed Partial Denture 35 Marks

a. Case discussion including treatment planning and selection of patient for F.P.D. 5 Marks

b. Abutment preparation isolation and fluid control 15 marks

c. Gingival retraction and impressions (conventional/ CAD CAM impressions) 10 marks

d. Cementation of provisional restoration 5 marks

4. Removable Partial Denture 25 Marks

a. Surveying and designing of partial dentate cast. 5 marks

b. Discussion on components and material selection including occlusal schemes. 10 marks

5. Implant supported prosthesis (2nd stage- protocol) 30 marks

a. Case discussion including treatment planning and selection of patient for ISP 10 marks

b. II stage preparation, Abutment selection, placement, evaluation 10 marks

c. Implant impression and making of cast 10 marks

B. Viva Voce : 100 Marks

I. Viva-Voce examination: 80 marks

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

II. Pedagogy 20 marks

2. PERIODONTOLOGY:

SCHEME OF EXAMINATION:

A. Theory: Part-I: Basic Sciences Paper - 100 Marks
Part-II: Paper-I, Paper-II & Paper-III - 300 Marks (100 Marks for each Paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows:

Part- I : Applied Basic Sciences: Applied Anatomy, Physiology, & Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics.

Part-II

Paper I: Normal Periodontal structure, Etiology & Pathogenesis of Periodontal diseases, epidemiology as related to Periodontics

Paper II: Periodontal diagnosis, therapy & Oral Implantology

Paper III: Essays (descriptive and analyzing type questions)

**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

The clinical examination shall be of two days duration



1st day

Case discussion

- Long case - One
- Short case - One

Periodontal surgery – Periodontal Surgery on a previously prepared case after getting approval from the examiners

2nd dayPost-surgical review and discussion of the case treated on the 1st day

Presentation of dissertation & discussion

All the examiners shall participate in all the aspects of clinical examinations / Viva Voce

Distribution of Marks for Clinical examination (recommended)

a) Long Case discussion	75	
b) 1 short case	25	
c) Periodontal surgery	1. Anesthesia	10
	2. Incision	20
	3. Post Surgery Evaluation	25
	4. Sutures	10
	5. Pack (if any)	10
Post – operative review	25	
Total	200	

C. Viva Voce :**i. Viva-Voce examination:**

100 Marks
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.

ii. Pedagogy Exercise :**20 marks**

A topic will 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.

ORAL AND MAXILLOFACIAL SURGERY**Scheme of Examination:**

A. Theory: Part-I: Basic Sciences Paper	-	100 Marks
Part-II: Paper-I, Paper-II & Paper-III	-	300 Marks
		(100 Marks for each Paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows: *

PART-I : Applied Basic Sciences: Applied Anatomy, Physiology, & Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics.

PART- II

Paper – I : Minor Oral Surgery and Maxillofacial Trauma

Paper – II : Maxillofacial Surgery

Paper – III : Essays (descriptive and analyzing type questions)

*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

1. Minor Oral Surgery - 100 Marks

Each candidate is required to perform the minor oral surgical procedures under local anaesthesia. The minor surgical cases may include removal of impacted lower third molar, cyst enucleation, any similar procedure where students can exhibit their professional skills in raising the flap, removing the bone and suturing the wound.

2. Case presentation and discussion:

(a) One long case - 100 Marks

(b) Two short cases - 60 Marks

40 Marks
(20 marks each)

C. Viva Voce - 100 Marks
i. 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.

ii. Pedagogy: 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.

4. CONSERVATIVE DENTISTRY AND ENDODONTICS

Scheme of Examination:

A. Theory: Part-I: Basic Sciences Paper - 100 Marks
Part-II: Paper-I, Paper-II & Paper-III - 300 Marks
(100 Marks for each Paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows: *

PART-I : Applied Basic Sciences: Applied Anatomy, Physiology, Pathology including Oral Microbiology, Pharmacology, Biostatistics and Research Methodology and Applied Dental Materials.

PART-II

Paper-I : Conservative Dentistry
Paper-II : Endodontics
Paper-III : Essays (descriptive and analyzing type questions)



**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

The duration of Clinical and Viva Voce examination will be 2 days for a batch of four students. If the number of candidates exceeds 4, the programme can be extended to 3rd day.

Day 1

	Clinical Exercise I – Random case discussion – (2) - (Diagnosis, Treatment, Planning & Discussion)	10+10 Marks
Cast core preparation		
(i) Tooth Preparation	-	20 marks
(ii) Direct Wax Pattern	-	10 marks
(iii) Casting	-	10 marks
(iv) Cementation	-	05 marks
(v) Retraction & Elastomeric Impression	-	05 marks
Clinical Exercise II (Inlay Exercise)	-	30 Marks
(i) Tooth preparation for Class II Inlay (Gold or Esthetic)	-	20 marks
(ii) Fabrication of Indirect Pattern	-	10 marks
Day 2		
Clinical Exercise III (Molar Endodontics)	-	100 Marks
(i) Local Anaesthesia and Rubber Dam application	-	20 marks



(ii) Access Cavity	-	20 marks
(iii) Working length determination	-	20 marks
(iv) Canal Preparation	-	20 marks
(v) Master cone selection	-	20 marks

C. Viva Voce : 100 Marks
i. 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.

ii. 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.

5. ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS

Scheme of examination:

A. Theory: Part-I: Basic Sciences Paper	-	100 Marks
Part-II: Paper-I, Paper-II & Paper-III	-	300 Marks
		(100 Marks for each Paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows: *

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

PART-II
Paper I: 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 II : Clinical Orthodontics

Paper III : Essays (descriptive and analyzing type questions)

* 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 : 50 Marks

Functional Case :
 Selection of case for functional appliance and recording of construction bite.
 Fabrication and delivery of the appliance the next day.

Exercise No: 2 : 50 Marks

1. III stage with auxiliary springs/Wire bending of any stage of fixed orthodontics (OR)
2. Bonding of SWA brackets and construction of suitable arch wire.

Exercise No. 3 : 75 Marks
Display of records of the treated cases
 (Minimum of 5 cases)

Exercise No: 4 : 25 Marks



Long case discussions

Time allotted for each exercise:

No	Exercise	Marks allotted	Approximate Time
1	Functional appliance	50	1 hour (each day)
2	III stage mechanics / Bonding and arch wire fabrication	50	1 hr 30 min
3	Display of case records (a minimum of 5 cases to be presented along with all the patients and records)	75	1 hour
4	Long cases	25	2 hours

Note: The complete records of all the cases should be displayed (including transferred cases)

C. Viva Voce

i. Viva-Voce examination:

100 Marks
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.

ii. 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.

6. ORAL & MAXILLOFACIAL PATHOLOGY AND ORAL MICROBIOLOGY

Scheme of Examination:

A. Theory : Part-I: Basic Sciences Paper
Part-II: Paper-I, Paper-II & Paper-III

100 Marks
300 Marks

(100 Marks for each Paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. Three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows: *

PART-I : Applied Basic Sciences: Applied Anatomy, Physiology (General and oral), Cell Biology, General Histology, Biochemistry, General Pathology, General Pharmacology specially related to drug induced oral mucosal lesions, General and systemic Microbiology, Virology, Mycology, Basic Immunology, Oral Biology (Oral and Dental Histology), Biostatistics and Research Methodology

PART-II

Paper-I : Oral pathology, Oral Microbiology & Immunology and Forensic Odontology
Paper-II : Laboratory techniques & Diagnosis and Oral Oncology
Paper-III : Essays (descriptive and analyzing type questions)

* 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
1. Case Presentation		
a) Long case	-	20 marks
b) Short case	-	10 marks
2. Clinical Hematology (any two investigations) Hb%, bleeding time, clotting time, Total WBC count, Differential WBC count and ESR	-	20 Marks

3. Smear Presentation Cytology or microbial smear and staining	-	20 marks
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4. Paraffin sectioning and H & E Staining	-	30 Marks
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5. Histopathology slide discussion	-	100 Marks
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C. Viva Voce	-	100 Marks
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i. Viva-Voce examination	-	80 marks
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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.

ii. Pedagogy Exercise	-	20 marks
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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.

7. **PUBLIC HEALTH DENTISTRY**
Scheme of Examination

A. Theory: Part-I: Basic Sciences Paper	-	100 Marks
Part-II: Paper-I, Paper-II & Paper-III	-	300 Marks
		(100 Marks for each Paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I &

Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows: *

PART-I : Applied Basic Sciences: Applied Anatomy and Histology, Applied Physiology and Biochemistry, Applied Pathology, Microbiology, Oral Pathology, Physical and Social Anthropology, Applied Pharmacology and Research Methodology and Biostatistics.

PART-II :

Paper-I : Public Health

Paper-II : Dental Public Health

Paper-III : Essays (descriptive and analyzing type questions)

* 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
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1. Clinical examination of at least 2 patients representing the community – includes history, main complaints, examination and recording of the findings, using indices for the assessment of oral health and presentation of the observation including diagnosis, comprehensive treatment planning.	(50 Marks – 1 ½ Hrs)
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2. Performing	(50 Marks– 1 ½ Hrs)
a. One of the treatment procedures as per treatment plan. (Restorative, surgical, rehabilitation)	
b. Preventive oral health care procedure.	



- c. One of the procedures specified in the curriculum
3. Critical evaluation of a given research article published in an international journal (50 Marks – 1 Hour)
4. Problem solving – a hypothetical oral health situation existing in a community is given with sufficient data. The student as a specialist in community dentistry is expected to suggest practical solutions to the existing oral health situation of the given community. (50 Marks – 1 ½ Hours)

C. Viva Voce

: 100 Marks

i. 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.

ii. 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.

8. PEDIATRIC AND PREVENTIVE DENTISTRY

Scheme of Examination:

A. Theory: Part-I: Basic Sciences Paper	-	100 Marks
Part-II: Paper-I, Paper-II & Paper-III	-	300 Marks
		(100 Marks for each Paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows: *

Part-I: Applied Basic Sciences – Applied Basic Sciences: Applied Anatomy, Physiology, & Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics Growth & Development and Dental plaque, Genetics.

Part-II:

Paper-I :Clinical Paedodontics

1. Conscious sedation, Deep Sedation & General Anesthesia in Pediatric Dentistry
2. Gingival & Periodontal Diseases in Children
3. Pediatric Operative Dentistry
4. Pediatric Endodontics
5. Traumatic Injuries in Children
6. Interceptive Orthodontics
7. Oral Habits in children
8. Dental Care of Children with special needs
9. Oral Manifestations of Systemic Conditions in Children & their Management
10. Management of Minor Oral Surgical Procedures in Children
11. Dental Radiology as Related to Pediatric Dentistry
12. Pediatric Oral Medicine & Clinical Pathology
13. Congenital Abnormalities in Children
14. Dental Emergencies in Children & Their Management
15. Dental Materials Used in Pediatric Dentistry
16. Case History Recording
17. Setting up of Pedodontic & Preventive Dentistry Clinic

Paper-II: Preventive and Community Dentistry as applied to Pediatric Dentistry



1. Child Psychology
2. Behavior Management
3. Child Abuse & Dental Neglect
4. Preventive Pedodontics
5. Cariology
6. Preventive Dentistry
7. Dental Health Education & School Dental Health Programmes:
8. Fluorides
9. Epidemiology
10. Comprehensive Infant Oral Health Care/Comprehensive cleft care
11. Principles of Bio-Statistics & Research Methodology & Understanding of Computers and Photography

Paper-III: Essays (descriptive and analyzing type questions)

** 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

The Clinical / Practical and Viva-Voce Examinations are conducted for a minimum of two days.

First Day:

1. Case Discussion, Pulp Therapy i.e. Pulpectomy on a Primary Molar.

Case Discussion	:	20 marks
Rubber Dam application	:	10 marks
Working length X-ray	:	20 marks
Obturation	:	<u>20 marks</u>
Total		<u>70 marks</u>

2. Case Discussion, Crown preparation on a Primary Molar for Stainless steel crown and cementation of the same.

Case discussion	:	10 marks
Crown Preparation	:	20 marks
Crown selection and Cementation	:	<u>20 marks</u>
Total		<u>50 marks</u>

3. Case Discussion, band adaptation for fixed type of space maintainer and impression making.

Case discussion	:	20 marks
Band adaptation	:	20 marks
Impression	:	<u>20 marks</u>
Total		<u>60 marks</u>

Second Day:

1. Evaluation of Fixed Space Maintainer and Cementation

: 20 marks

C. Viva Voce

: 100 Marks

i. 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.

ii. 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.

9. ORAL MEDICINE AND RADIOLOGY

Schemes of Examination:

A. Theory: Part-I: Basic Sciences Paper - 100 Marks
Part-II: Paper-I, Paper-II & Paper-III - 300 Marks

(100 Marks for each Paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows: *

PART-I : **Applied Basic Sciences:** Applied Basic Sciences: Applied Anatomy, Physiology, & Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics

PART-II :

Paper-I : Oral and Maxillofacial Radiology
Paper-II : Oral Medicine, therapeutics and laboratory investigations
Paper-III : Essays (descriptive and analyzing type questions)

* 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

1st Day

Clinical Case Presentation	
2 Spotters	2 x 10 = 20 Marks
2 Short Cases	2 x 15 = 30 Marks
1 Long Case	1 x 50 = 50 Marks
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	Total = 100 Marks

Radiology Exercise

- I. A) One Intra Oral Radiograph : 10 Marks
B) One Occlusal Radiograph : 30 Marks
- II. A) Two Extra Oral Radiograph : 2x30 = 60 Marks
Including technique and interpretation

2nd Day

C. **Viva Voce** : 100 Marks

i. 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.

ii. 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.



**MAHARISHI MARKANDESHWAR UNIVERSITY,
MULLANA (AMBALA)**

**M.M. COLLEGE OF DENTAL SCIENCES & RESEARCH,
MULLANA (AMBALA)**

SCHEME OF EXAMINATIONS FOR DENTAL HYGIENIST COURSE

DENTAL HYGIENISTS

The minimum hours devoted to the under mentioned subjects shall be as follows:

Primary Year

	<u>Subject</u>	<u>Lectures</u>	<u>Practicals/ Demonstrations/ Clinical</u>	<u>Total</u>
Primary				
(1)	Anatomy, General & Dental	50	100	150
(2)	Physiology & Histology, General and Dental	20	40	60
(3)	Pharmacology General and Dental	15	10	25
(4)	Pathology & Microbiology	30	70	100
(5)	Dental Radiology	10	40	50
(6)	Food and Nutrition	25	30	55
(7)	Dental Hygiene and Oral Prophylaxis	50	280	330
(8)	Basic knowledge of computers	20	50	70
			Total	840

Final Year

	<u>Subject</u>	<u>Lectures</u>	<u>Practicals/ Demonstrations/ Clinical</u>	<u>Total</u>
(1)	Dental Hygiene and Oral Prophylaxis	25	350	375



(2)	(i) Dental Health Education (ii) Community Public Health Dentistry (iii) Preventive Dentistry	50	200	250
(3)	Dental Ethics and Jurisprudence; Orientation in Dentistry	15	--	15
(4)	Dental Materials	10	10	20
			Total	660

EXAMINATIONS

1. An Examination for the grant of Diploma of Dental Hygienists shall be conducted by a Board of three Examiners imparting training for qualification of Dental Hygienists Course approved by the Dental Council of India. One of the Examiners must be external (from outside that institution).

Note: Qualification / Eligibility to appointment as Examiners for Dental Hygienist Examinations.

- (a) out of 3 members of Examining Board, the external and one internal examiner should be a reader in Periodontics (MDS) and third could be tutor (Dental Hygienist Course) involved in teaching of the course.
 - (b) That medical persons teaching medical subjects may be appointed as Examiners for medical subjects even though they are not registered under the Dentists Act 1948.
 - (c) He could be an active teacher of the concerned course or in the concerned subject/s at a recognized dental/medical Institution.
2. The Examination shall be held twice in year on such dates as may be fixed. The examination shall consist of two parts: (1) Primary and (2) Final Diploma Examination.

THE PRIMARY EXAMINATION (FIRST YEAR)

3. The Examination shall be open to any student who:

- (i) has been enrolled during one academic year preceding the examination in an institution approved/recognized by the Dental Council of India for this purpose.
- (ii) The candidate must have passed 10+2 or two years intermediate or equivalent course thereof with Science Subject (i.e.) Physics, Chemistry and Biology from a recognized Indian University or Pre-University/ Intermediate Board.
- (iii) Has his/ her name, submitted to the Board of Examiners, by the head of the institution in which he/she is enrolled;
- (iv) Produces the following certificates signed by the head of the Institutions:
 - (i) of good character;



(ii) of having attended not less than 75% of the full course of lectures delivered and practicals/ demonstrations clinical conducted in each of the subjects of examinations.

4. Every candidate shall forward his/her application to the Examining Body by a date fixed by the Body, accompanied by the prescribed fee. A Candidate who fails to pass or present himself/ herself for examination shall not be entitled to claim a refund of the fee.

5. Every candidate shall be examined in the following subjects comprising of three theory papers as follows:

Paper-I	:	Anatomy, Physiology & Histology.
Paper-II	:	Pharmacology, Pathology & Microbiology
Paper-III	:	Food Nutrition & Radiology.

Marks for each of the papers shall be as under:-

Written	75
Oral	25
Practical	100
<hr/> Total	<hr/> 200

Each written paper shall be of three hours.

6. Every candidate shall be required to take up all subjects of the examination. A candidate failing in any paper or papers of this examination before being permitted to reappear at the subsequent examination shall produce evidence of having pursued such a course of training as the Head of the institution may determine.

A candidate, who passes in any one or more papers of the examination shall be exempted from appearing in which he/she has passed and shall be allowed to reappear in the rest in which he/she has failed in any subsequent examination within a period of two years. After two years the candidate will have to appear in all papers of this examination.

7. The minimum number or marks require to pass the examination shall be fifty percent in each paper both in the (i) written with oral and (ii) practical parts of the examination.

Candidates who obtain minimum of 75% marks in any paper under examination and passes in all three subjects in first attempt shall be declared to have passed with distinction in a particular subject/s. candidates who do not pass in all the papers in the first attempt and later passes with distinction marks, shall be declared as passed but without distinction

8. As soon as possible after the examination the board of Examiners shall publish a list of the candidates who have passed. Each successful candidate shall be granted a PRIMARY DIPLOMA.

THE FINAL DIPLOMA EXAMINATION



9. This Examination shall be open to any student who:
- has been enrolled for primary academic year preceding the examination in an institution approved/recognized by the Dental Council of India for the purpose.
 - Has previously passed the primary examination for the Diploma Of Dental Hygienists
 - Has his/ her name, submitted to the Board of Examiners, by the head of the institution in which he/she is enrolled;
 - Produces the following certificates signed by the head of the Institutions:
 - of good character;
 - of having attended not less than 75% of the full course of lectures delivered and practical/ demonstration/ clinical conducted in each of the subjects of examinations
 - of having passed the primary Examination in all papers
 - there shall not be a gap of more than two academic years between primary and final diploma exams.
10. Every candidate shall forward his/her application to the Examining Body by a date fixed by that Body, accompanied by the prescribed fee. A Candidate who fails to pass or present himself/ herself for examination shall not be entitled to claim a refund of the fee.
11. Every candidate shall be examined in the following subjects comprising of three theory papers as follows:

Paper-I	:	Dental Hygiene and Oral Prophylaxis
Paper-II	:	Dental Health Education, community/ Public Health Dentistry, Preventive Dentistry
Paper-III	:	Dental Materials, Dental Ethics & Jurisprudence, Orientation in Dentistry

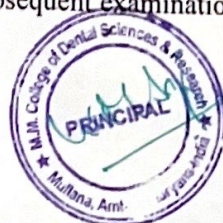
Marks for each of the papers shall be as under:-

Written	75
Oral	25
Practical	100
Total	200

Each written paper shall be of three hours.

12. Every candidate shall be required to take up all subjects of the examination. A candidate failing in any paper or papers of this examination before being permitted to reappear at the subsequent examination shall produce evidence of having pursued such a course of training as the Head of the institution may determine.

A candidate, who passes in any one or more papers of the examination shall be exempted from appearing in which he/she has passed and shall be allowed to reappear in the rest in which he/she has failed in any subsequent examination within



a period of two years. After two years the candidate will have to appear in all papers of this examination.

13. The minimum number or marks require to pass the examination shall be fifty percent in each paper both in the (i) written with oral and (ii) practical parts of the examination.

Candidates who obtain minimum of 75% marks in any paper under examination and passes in all three subjects in first attempt shall be declared to have passed with distinction in a particular subject/s provided he/she passed al subject of examination in first attempt. Candidates who do not pass in all the papers of the FINAL EXAMINATION at one and the same time shall not be declared to have passed with distinction.

14. The college authority will apply two months in advance along with practical examination date sheet to the DCI for recognition of the Diploma course.

15. As soon as possible after the examination the Board of Examiners shall publish a list of the candidates who have passed. Each successful candidate shall be granted a Diploma subject to the approval by DCI.

6.02.10/11

