



**VINAYAKA MISSION'S  
RESEARCH FOUNDATION**  
(Deemed to be University under section 3 of the UGC Act 1956)



**VINAYAKA MISSION'S  
SANKARACHARIYAR  
DENTAL COLLEGE**



# BDS



**Bachelor Of  
Dental Surgery**

**1<sup>ST</sup> YEAR**  
GUIDE BOOK 2023 - 2024



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SANKARACHARIYAR  
DENTAL COLLEGE**



## Personal Memoranda

AFFIX  
PHOTO

Name :  
Registration Number :  
Father/Mother's Name :  
Address :  
Email Id :  
Mobile No. :  
Date Of Birth :  
Blood Group :  
Year of Admission :  
Year of Study :

Student Academic Coordinator : Dr.S. Ashna  
Mobile No : 98436 93385  
Mentor's Name :  
Dept. Name & Room. No :  
Phone No :

Other Details if any :

NH 47 Sankari Main Road, Ariyanoor, Salem - 636 308. Tamilnadu, India.

Phone : 0427-2477723 | E Mail : dean@vmsdc.edu.in

College Website : www.vmsdcsalem.com | University Website : vinayakamission.com

# Dean's Message

I am happy to note that you have taken a decision to join our Institution after a serious thought and discussion amongst your loved and learned ones. I congratulate you for the wise decision.

Vinayaka Mission's Sankarachariayar Dental College was started in the year 1986 and has crossed leaps and bounds, to attain the present status. I wish to state that dentistry is an art & science which needs a good sculptor and source.

Our asset is experienced and dedicated staff, good infrastructure and clinical cases, provides an environment for student centric learning in a holistic manner. The skill needed for the art and the knowledge needed for science is delivered by keeping the present generation's need to face the global challenge.

I therefore, assure you that your decision will not go futile and you will not only be a successful dentist but also a good statesman by making our country proud in all endeavors.

**Prof. Dr. J. BABY JOHN, M.D.S.,**  
Dean, VMSDC, Salem

# Vinayaka Mission's Sankarachariyar Dental College (Vmsdc) Profile



## Mrs. Annapoorani Shanmugasundaram & Dr. A. Shanmugasundaram

Vinayaka Mission's Sankarachariyar Dental college, Salem was instituted in the year 1986 as an affiliated institution under the University of Madras and later on affiliated to the Tamilnadu Dr. MGR Medical University, Chennai with courses viz. Bachelor of Dental Surgery (BDS), Master of Dental Surgery (MDS), Diploma in Dental Mechanics and Diploma in Dental hygienist.

The Vinayaka Mission's Sankarachariyar Dental college later on became the constituent of VINAYAKA MISSION'S RESEARCH FOUNDATION (DEEMED TO BE UNIVERSITY) from 2001. The institution is located on NH 47, Sankari Main Road, Ariyanoor, Salem- 636008 in 10.14 acre campus with a build up area of 1,14,149 sq.ft.

The institution has committed to impart quality education to the students from different socioeconomic & Cultural backgrounds. The institution offers Undergraduate programme, 9 Postgraduate programmes, PhD in Dentistry, Diploma courses in Dental Mechanics & Dental Hygienist. The campus has well equipped library with internet facility & Central Research Laboratory for the staff and students.

# Academic & Administrative Profile

S.No	Name	Academic Profile	Mobile No.
1.	Dr. J. Baby John	Professor & Dean	9842753645
2.	Dr.Reena Rachel John	Professor & Associate Dean (Research & Scientific) Oral & Maxillofacial Surgery	9443118756
3.	Dr.R.Saranyan	Professor & HOD Periodontology Associate Dean (Academic Affairs)	9842748071

S.No	Name	Academic Profile	Mobile No.
1.	Dr. G.V.Ramachandra Reddy	Professor & HOD Oral Medicine & Radiology	9844065968
2.	Dr.R.Saranyan	Professor & HOD Associate Dean (Academic Affairs) Periodontology	9842748071
3.	Dr.J.Arunkumar	Professor & HOD Oral & Maxillofacial Surgery	9443273347
4.	Dr.R.Ramesh	Professor & HOD Prosthodontics and Crown & Bridge	9443155211
5.	Dr.Maya Ramesh	Professor & HOD Oral & Maxillofacial Pathology and Oral Microbiology	9600918804
6.	Dr. Veena Arali	Professor & HOD Pediatric & Preventive Dentistry	9535444112
7.	Dr.Yadav Chakravarthy	Professor & HOD Conservative Dentistry & Endodontics	8072404507
8.	Dr.N.Saravanan	Professor & HOD Public Health Dentistry	9842753645
9.	Dr.Prabhakar Krishnan	Professor & HOD Orthodontics & Dentofacial	9843688271

S.No	Name	Academic Profile	Mobile No.
1.	Mr.R.Natarajan	Administrative Officer	9843044140
2.	Mr.I.Sapnath Panea Ray	Academic Officer	9245478556
3.	Mr.A.Syed Nizamuddin	Senior Accountant	8825805997
4.	Mrs.J.Sudhishna	Senior executive hospital admin	9994619822

# Hippocratic Oath

I do solemnly vow, to that which I value and hold most dear:

That I will honor the Profession of Medicine, be just and generous to its members, and help sustain them in their service to humanity;

That just as I have learned from those who preceded me, so will I instruct those who follow me in the science and the art of medicine;

That I will recognize the limits of my knowledge and pursue lifelong learning to better care for the sick and to prevent illness;

That I will seek the counsel of others when they are more expert so as to fulfill my obligation to those who are entrusted to my care;

That I will not withdraw from my patients in their time of need;

That I will lead my life and practice my art with integrity and honor, using my power wisely;

That whatsoever I shall see or hear of the lives of my patients that is not fitting to be spoken, I will keep in confidence;

That into whatever house I shall enter, it shall be for the good of the sick;

That I will maintain this sacred trust, holding myself far aloof from wrong, from corrupting, from the tempting of others to vice;

That above all else I will serve the highest interests of my patients through the practice of my science and my art;

That I will be an advocate for patients in need and strive for justice in the care of the sick.

I now turn to my calling, promising to preserve its finest traditions, with reward of a long experience in the joy of healing.

I make this vow freely and upon my honor.

# Hippocratic Oath For Dentistry

swear to fulfill, to the best of my ability and judgment, this covenant:

- I will respect the hard-won scientific gains of those dental professionals in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow.
- I will apply, for the benefit of the sick, all measures which are required, avoiding those twin traps of overtreatment and therapeutic nihilism.
- I will remember that there is art to dentistry as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug.
- I will not be ashamed to say "I know not"; nor will I fail to call in my colleagues when the skills of another are needed for a patient's well being.
- I will respect the privacy of my patients, for their problems are not disclosed to me that the world may know. Most especially must I tread with care in matters of life and death. If it is given me to save a life, all thanks. But it may also be within my power to take a life; this awesome responsibility must be faced with great humility and awareness of my own frailty. Above all, I must not play at God.
- I will remember that I do not treat a decayed tooth or a cancerous growth, but a sick human being, whose illness may affect the person's family and economic stability. My responsibility includes these related problems, if I am to care adequately for the sick.
- I will prevent disease whenever I can, for prevention is preferable to cure.
- I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm.
- If I do not violate this oath, may I enjoy life and art, respected while I live and re-membered with affection thereafter. May I always act so as to preserve the finest traditions of my calling and may I long experience the joy of healing those who seek my help.





**VINAYAKA MISSION'S  
SANKARACHARIYAR  
DENTAL COLLEGE**

Recognized by Dental Council of India (DCI) and Govt. of India, New Delhi.

## Vision & Mission

### Our Motto

Service to humanity is service to God.

### Vision

To make dental education and dental health available to the poor and needy in the rural sector.

### Mission

To spread knowledge with recent advances and to promote research in the field of dentistry.

### QUALITY POLICY

To prepare students to have in depth knowledge in both pre-clinical and clinical dentistry and update advances in diagnosis and therapeutics to meet the present dental disease pattern in the society.



## VMSDC EMBLEM

### The Lord Vinayaka

Vinayaka is in the centre of the emblem. He is the God of Health, Wisdom, Education & Prosperity and God for Nirvigna in the various walks of human -life. The tusks of the elephant are placed on either side of rod of Aesculapius. It represents the symbol of dentistry.

### God Of Medicine

The God of Aesculapius is an ancient symbol associated with astrology, the Greek God Aesculapius and with healing. It consists of a serpent entwined around a staff. The name of the symbol derives from its early and widespread association with Aesculapius, the son of Apollo, who was a practitioner of medicine in ancient Greek mythology.

### God Of Dentistry

Our Emblem design uses at its centre a twin serpent entwined about an ancient Arabian cautery.

### Leaves

The leaves encircling Lord Vinayaka and God of Aesculapius represents human teeth.

The 20 leaves on the left side represent the deciduous dentition.

The 32 leaves on the right side represent the permanent dentition.

# General Rules & Regulations

## 1. Dress Code

All students should wear ID cards issued by college as per the respective year of study. Students should not enter the LAB without Apron. Foot wear must be clean and well polished. Open toe shoes are not allowed. Clothing must be neat & wrinkle free. Jeans, T-Shirts, Leggings & Sleeveless tops are not allowed. Finger nails must be clean & short to allow proper grasp of instruments. Gold ornaments, Bracelets & rings are not allowed. Formal, Trousers and shoes should be worn by the boys. Hair should be trimmed properly and face should be clean shaved or facial hair should be trimmed properly. Girls hair to be pinned and braided properly. Students are strictly advised to adhere to the rules and regulations that will be monitored by the and appropriate action will be taken for those who are not complying with the college regulations.

## 2. Safety Code

Long hair must be tied and put back for safety measures. Wear face mask in clinical session as & when required. Always work with good ventilation. Do not keep inflammable materials (Spirit, monomer) near open flame. Students should take care of their own instruments and their costlier belongings. Borrowing instruments from others is not allowed. LPG tap should always be kept closed after working in the lab.

## 3. Cleanliness Code

Lab must be kept clean. This includes working tables, model trimmers, polishing & furnishing areas. Dental plaster, waxes & other working wastes must be properly discarded in the separate dustbin. They should not be discarded in the sink (Waxes should not be discarded on the floor / Veranda). Before leaving the LAB make sure your working area is clean. Apron should be washed regularly & kept clean.

## 4. Phones & Two Wheelers

The use of Mobile phones is strictly forbidden during the learning hours in lectures, clinical posting and laboratories. In case of emergency, parents / guardians are requested to use college communications. Any student, not abiding by this protocol will face severe disciplinary action. Mobile phones will be allowed in college only for academic purpose with prior approval of staffs. Unwanted download or usage of institutional WiFi is strictly prohibited. If unethical use of mobile phones are found, fine amount will be levied towards "The poor patient fund". Two wheelers are banned and college is not responsible for any eventuality.

## 5. Ragging (Banned) :

Any student found indulging in ragging or submitting to it, is strictly forbidden inside or outside the college campus. Ragging in any form is a punishable offence and shall warrant severe disciplinary action, by the concerned committee. Any incidence of ragging, should be immediately brought to notice of the Anti Ragging Committee. Clisplayed at College.

## 6. Any Damage, Misuse Of College Property Shall Warrant Disciplinary Action.

## 7. Leave application

- Students availing leave should take prior permission except under medical/emergency reasons.
- Students availing prior leave should first take permission from the respective department staff in-charge of that day timetable .i.e., Clinical posting / Theory / Practical class of all the department which he/she is supposed to attend on that particular day.
- Then after permission from the department staff in-charges, he/she has to inform their mentor and then to their academic coordinator through WhatsApp as message or photocopy of their leave form approved by respective department staff in-charges

- Students availing leave because of medical reason/emergency has to submit a written leave letter through his/her batch mate or a mail informing of the leave on the same day to their respective department staff in-charge / Dean and forward the screenshot / image / scanned copy of the leave letter to his/her Mentor and Academic coordinator through official mail ID .
- In case of medical leave, copy of your medical report should be submitted to respective department at the time of entry after approval from Dean.
- Any leave taken without prior communication will not be considered as leave and marked as absent.

## **8. Attendance**

A minimum of 75% attendance in theory and 75% in practical/clinical in all subjects in each year is mandatory for appearing in the university examinations. In case of a subject in which there is no examination at the end of the academic year/semester, the percentage of attendance shall not be less than 70%. The work quota of that subject has to be completed before entering into the subsequent year. However, at the time of appearing for the professional examination in the subject, the aggregate percentage of attendance in the subject should satisfy above condition. A quarterly report of each student will be noted, from the departments & parents / guardians, duly intimated. Candidates who are found to be irregular & held for any misconduct shall not be permitted to appear for university examinations.

## **9. Lost record books**

In case of lost record books it has to be duly approved & attested by the concerned Head of the department and Head of the Institution for duplication of records.

## **10. Term Fees / Hostel fees**

Students are strictly advised to pay their prescribed fee on the stipulated date without fail.

## **11. Grievances**

Any grievances can be brought to the notice of the Students Grievance Redressal Committee. For further details of Grievance Redressal Committee see link: <https://www.vinayakamission.com/Grievance-Redressal.php>

## **12. Confidential Suggestion Box**

The suggestions / complaints / feedback can be deposited in the form of a written letter / email addressed to the Dean. The suggestion box is placed in first floor near Dean's office / Women's common room/Men's common room/First floor of Library . The box will only be accessed by the Dean in the presence of Grievance Committee Head .

Dean Mail ID : [dean@vmsdc.edu.in](mailto:dean@vmsdc.edu.in)

## **13.Social Media Policy**

The VMSDC Social Media policy applies to all employees and students of the college. Comments and posts damaging the welfare of the institution will be taken up seriously by the concerned authorities. Therefore avoid the misuse of social media and any issues can be discussed directly with the Head of the Institution or by using the suggestion box or online feedback, that is being practiced for the betterment for the institution.

## **14.Code of Conduct**

Kindly refer [https://vmrfdu.edu.in/code\\_of\\_conduct.php](https://vmrfdu.edu.in/code_of_conduct.php) for the Rules & Regulations for the code of conduct for Vinayaka Mission's Sankarachariyar Dental College - Students of Vinayaka Mission's Research Foundation – Deemed to be University (VMRF-DU)

# Facilities

VMSDC has good infrastructure with a total of 9 specialities & comprehensive dental clinic fulfilling the basic requirements of the council. It also has a central research laboratory including immunohistochemistry, chrom cobalt lab, ceramic lab, hematology lab & histopathology lab. All of them are well equipped & have trained technicians. For students to get training before entering clinicals we have a separate pre-clinical prosthodontics, pre-clinical conservative lab and simulation lab where they can improve their hand skills before treating the patients.

For basic sciences & medical science subjects in I, II & III year, students have to attend both theory & practical classes ( as per the time table provided) in Vinayaka Mission's Kirupanandavariyar Medical college & hospital. Bus transportation will be provided by the college on those days as per the scheduled time.

## Research:

At VMSDC Research & Innovation are an integral part of curriculum and training. Students are encouraged to do Research by granting seed money for selected project.

## Co-Curricular Activities:

Students are encouraged to participate in various paper, poster, table clinic and Quiz competitions in Conferences/Symposium at their own expense after presenting and getting approved by the Students Conference committee existing at VMSDC.

## Library :

The central library is spread over 9303sq.ft. The Library was well equipped with the latest books and journals. The library has 7977 books, 13 National & 11 International journals, 1251 E-Books & 700 E-journals. Our institution is registered in National Digital Library.

Central Library is using Koha software for Library automation and has implemented RFID technology, with OPAC (Online Public Access Catalogue), and online renewal facility. Biometric based E-Gate Register used in the library. Books circulation is managed by Biometric and RFID Technology by staff and students. All the books are tagged with RFID & the RFID scanners are used for books transaction. Digital library section is available for students to use computers with internet facility and fire wall protection.

Library is accommodated in two floors. In the ground floor, sections available for Book Circulation, Basic science books, rare books, books for Higher Education, Magazines, and Dissertations are made available. In the First Floor Journals, Back volume Journals, Clinical science books, and Reference books are available with Digital Library section and Discussion area.

Library Hours : 8.30 am to 6.00 pm Services:

- Biometric E- Gate Register.
- Biometric Based circulation (Issue, Return and Renewal).
- Digital Library
- Computing Facility
- Wi-fi Facility
- Question Bank
- OPAC
- Reprography Service

## Best Practices:

- Best Library user Awards for Students.
- Library Orientation Program
- Exhibitions
- New Arrivals Display
- Reminders for Overdue books (E-mail alerts)

## **Rules & Regulations:**

- Personal belongings are not permitted inside the libraries; Users must keep their belongings at the property counter in the Entrance.
- Enter your finger print in the biometric register kept at the entrance before entering and leaving the library.
- Mobile phones and other devices should be in silent mode.
- Library books should be handled with utmost care. Marking or any kind of scribbling on pages or folding of page is strictly prohibited.
- In case of loss of any book, the borrower has to replace the same Edition of the book.
- Reference books, journals, back volumes, Thesis will not be issued to any users.
- Laptops may be used inside the libraries (without any audio).
- Users are allowed to take photocopies of the required articles in the reprography section.
- Photocopying of full – book is not permitted due to copyright issues.
- While accessing the E-resources of the library, proper entries are to be made in the records of the Library. Downloading the information is also permitted.
- Hostel Timing : Students should report back to Hostel before 8.00 pm
- Hostellers leaving the hostel should take prior permission from department staff in-charges, Mentor, Academic coordinator, Hostel incharge staff, he/she has to get final approval from the HOI office. This leave form with above said faculty signatures needs to be submitted to the warden before leaving the hostel.
- Hostellers leaving the hostel for emergency reasons after college hours should ask their parent to get permission from the hostel warden either in person or by phone along with permission letter for college leave mentioning the days and also to leave the hostel, which can be sent by mail to the Hostel warden, Hostel in-charge staff and the Head of the Institution. The same mail communication copy has to be forwarded by the student or his/her friend to the respective Department staff in-charges, Mentor and the Academic coordinator by Whats App/Mail/hardcopy.
- Students who are staying outside the hostel as well day scholars have to submit a No objection letter from their parent stating that the parents are responsible for the overall welfare of their wards and for problems arising outside the college premises.
- Students who wish to live in hostel under any circumstances for overnight stay should get prior permission from respective year academic coordinator & Dean and the permission letter to be submitted to the warden.

## **Useful Links:**

E-Journals: <https://dvlldental.com/> E-Books : <https://dental-library.com> NDLI: <https://ndl.iitkgp.ac.int>

## **Extra-Curricular Activities:**

The college has active National Service Scheme (NSS) and Red Ribbon Club (RRC) doing numerous social activities to help the society in and around the rural parts of Salem. The students are encouraged to be a part of these club's right from first year.

## **Mentoring Activities:**

There is an effective Mentor-Mentee system in the function of our college, where every student is allotted a faculty (Mentor) in the first year itself and asked to monitor the overall academic, social and emotional well-being of the student (Mentee). The parents also can keep in touch with the Mentors to know about their wards performance throughout the year.

## **Sports & Cultural:**

Our college is having an excellent indoor and outdoor sports facilities. A well qualified physical trainer is available full time to train the students in the evenings. We encourage our students to participate in the sports and cultural shows without affecting their academic activities.

## **Hostel:**

Hostel for Boys & Girls are available along with Medical Hostel. Details pertaining to hostel and associated facilities parents can approach the hostel warden.

# Examination Scheme

The VMRF DU Examinations shall be held at the end of every Academic year in the month of August and February. Results can be viewed at: [www.vinayakamissions.com](http://www.vinayakamissions.com).

Any student who does not clear the BDS Course in all the subjects within a period of 9 years, including one year Compulsory Rotatory paid Internship from the date of admission shall be discharged from the course. (REVISED BDS DEGREE COURSE (7 AMENDMENT) REGULATIONS 2015)

## Rules of examination:

Students are eligible to appear for university exams only if they have 75% of attendance in both theory & Practical and should have completed their preclinical / Clinical record work & Quota to be fulfilled for that year.

Students have to mandatorily appear for all class test & Internal examinations. Both Theory & Practical Internal examinations will be conducted minimum 3 per year including 1 model examination conducted prior to study holidays. If the student is unable to write the examinations then the re-examinations shall be conducted based on the recommendations of HOD & HOI.

An aggregate of three internal examinations will be calculated separately for Theory & Practicals and will be provided as Theory & Practical Internal Marks for Final University Examinations. Marks obtained for viva voce (for 20 marks) conducted during the university practical examination will be added to their University Theory marks. The written examination in each subject consist of one paper of three hours duration and have maximum marks of 70 including 20 marks of multiple choice questions.

A student (passed/failed) who appeared in an Examination is eligible for retotaling on payment of prescribed fee.

A student who has failed in practical Examination is not eligible to apply for retotaling.

## Pass Criteria:

Fifty percent of the total marks in any subject computed as aggregate for Theory i.e. written, viva voce and internal assessment and Practicals including internal assessment, separately is essential for a pass in all years of study. For declaration of pass in a subject, candidate should secure 50% marks in the university examination both in Theory and Practical / Clinical examination separately, as stipulated below.

A candidate should secure 50% in aggregate in university Theory including viva voce and internal assessment obtained in University written Examination combined together.

In the University Practical / Clinical examination, a candidate should secure 50% of University practical marks and internal assessment combined together.

## Break Students :

Students failing in more than two subjects ( except Environmental studies) will be considered as break in the course of 6 months duration and should attend the theory / practicals / internal assessment without fail. Deficiency in attendance will debar the students from attending the subsequent examinations.

## Carry Over Students :

Failing in one subject will be considered to have carry over subject and should clear the paper in Subsequent examination before appearing for the next year exam.

The carry-over students should appear for the internal assessment examination as & when instructed by that department.

# General Rules Of Examination

- Hall tickets for exams will be issued only upon producing the No Objection Certificate [NOC] from both academic & administration section.
- Candidates will be allowed inside the examination hall fifteen minutes before the commencement of examination only. No candidate will be allowed to enter the hall after ½ hour of commencement of the examination.
- Candidates should bring the identification card and hall ticket during university examination.
- Candidates are not allowed to leave the examination hall until 2.30 hrs has elapsed from the commencement of the examination. Thereafter, the candidate will only be permitted to leave after submission of answer booklet.
- Candidates are not allowed to bring along book or other written or printed material or blank papers or information in any form into the examination hall.
- Students should wear clothes with half sleeves as long sleeves are not permitted. Hair should be tied properly .
- Electronic pens & watches are not allowed.
- All bags and books must be kept in a quarantine area.
- Mobile phones and electronic devices must be switched off and handed over to the invigilator at the beginning of the examination. If found with any device, action will be taken based on the guidelines of university.
- Only blue/black ball point pen and graphite pencils are allowed.
- No pencil pouches permitted into examination halls for theory.
- No colouring or highlighting or using correction ink/liquid paper in the answer scripts.
- Histopathological/microscopic picture to be drawn using Hematoxylin & Eosin (H&E) pencils only.
- No writing on the question paper.
- Multiple choice questions (MCQ) must be answered separately in answer sheet provided for MCQ's. Any correction done in the answer must be signed by the invigilator.
- Candidates found copying or communicating with one another will be handed over to the Chief Superintendant for further action to be taken.
- Candidates are not allowed to continue writing or add anything to the answer booklet after the invigilator has announced the end of the examination.
- Any misconduct will be dealt as per the University Norms.

VMSDC follows a strict student code of conduct for examination, any form of fraud/ copying/ infringement of examination rules may lead to severe disciplinary action amounting to cancellation of the candidature in all subjects for university examination and/or disqualification from the degree program.



# Method Of Internal Assessment

Method Of Assessments	Details	Marks with Percentage
1. Formative assessment	Minimum of two (2) unit test & 2 competency / clinical test should be conducted	No marks (Only Remarks) Provides Only feedback for improvement
2. Internal assessment	Theory internal - 10marks Practical internal –10 marks	20 (10%)
3. Summative assessment a) Professional examination	Theory : • MCQ'S - 20 marks • SAQ'S - 30 marks • LAQ'S - 20 marks Viva voce - 20 marks	90 (45%)
	Clinical /Practical	90 (45%)
	Total marks	200

## Continuous (Internal) assessment (Total Marks -20) Theory internal -10 mark's distribution

Criteria	Details	Marks
Exam	2 terminal test & 1 Model exam (Average of 3 will be considered & more weightage for model exam marks)	10
Clinical /Practical skills	Average of Three (3) Practical /Clinical Assessment test. While assessing clinical skills, the following parameters of soft skill should be considered. (Weightage of each parameter based on the individual dept. preference.)	10
	<ul style="list-style-type: none"> <li>• Communication skills</li> <li>• Critical thinking &amp; problem solving skills</li> <li>• Team work</li> <li>• Lifelong learning &amp; information management</li> <li>• Professional ethics &amp; moral</li> <li>• Leadership skills</li> </ul>	90 (45%)

### a) Formative Assessment

Mainly to improve the educational methods & student feedback throughout the teaching & learning process.

### b) Summative Assessment

Typically used to evaluate the effectiveness of Educational Programs and services at the end of an academic year or at a pre - determined time.

Summative internal assessments will be complemented by formative assessments and shall consist of such written, clinical, practical (laboratory) and oral assessments, either singly or as part of a group, as the Faculty requires.

# Anti - Ragging

Ragging constitutes one or more of any of the following acts:

- any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student;
- indulging in rowdy or indisciplined activities by any student or students which causes or is likely to cause annoyance, hardship, physical or psychological harm or to raise fear or apprehension thereof in any fresher or any other student;
- asking any student to do any act which such student will not in the ordinary course do and which has the effect of causing or generating a sense of shame, or torment or embarrassment so as to adversely affect the physique or psyche of such fresher or any other student;
- any act by a senior student that prevents, disrupts or disturbs the regular academic activity of any other student or a fresher;
- exploiting the services of a fresher or any other student for completing the academic tasks assigned to an individual or a group of students.
- any act of financial extortion or forceful expenditure burden put on a fresher or any other student by students;
- any act of physical abuse including all variants of it: sexual abuse, homosexual assaults, stripping, forcing obscene and lewd acts, gestures, causing bodily harm or any other danger to health or person;
- any act or abuse by spoken words, emails, post, public insults which would also include deriving perverted pleasure, vicarious or sadistic thrill from actively or passively participating in the discomfiture to fresher or any other student ;
- any act that affects the mental health and self-confidence of a fresher or any other student with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student.
- Any act of physical or mental abuse (including bullying and exclusion) targeted at another student (fresher or otherwise) on the ground of colour, race, religion, caste, ethnicity, gender (including transgender), sexual orientation, appearance, nationality, regional origins, linguistic identity, place of birth, place of residence or economic background.

# Anti - Ragging

Ragging in any form is banned inside and outside the college premises.

## SAY NO TO RAGGING



## YES TO JOYFUL CAMPUS

Download  
**ANTI RAGGING**  
App

**A STUDENT INDULGING IN RAGGING CAN BE:**

- Cancellation of admission.
- Suspension from attending classes.
- Withholding/withdrawing Scholarship/Fellowship and other benefits.
- Debarring from appearing in any test/ examination or other evaluation process.
- Withholding results.
- Debarring from representing the institution in any regional, national or international meet, tournament or youth festival etc.
- Collective punishment : when the persons committing or abetting the crime of ragging are not identified the institution shall resort to collective punishment as a deterrent to ensure community pressure on potential ragger.

**What is Ragging?**  
Any Act Resulting in:

- Mental/physical/sexual Abuse
- Verbal Abuse
- Indecent Behaviour
- Criminal Intimidation/wrongful Restraint
- Undermining Human Dignity
- Financial Exploitation/extortion
- Use Of Force



Immediately call  
**UGC Anti-Ragging Helpline**  
1800-180-5522 (24X7 toll free)  
or send an e-mail to [helpline@antiragging.in](mailto:helpline@antiragging.in)



**MHRD**  
DEPARTMENT OF HIGHER EDUCATION  
MINISTRY OF HUMAN RESOURCE DEVELOPMENT  
GOVERNMENT OF INDIA



विश्वविद्यालय अनुदान आयोग  
**University Grants Commission**  
quality higher education for all

# Anti - Ragging Committee

Name	Designation	Department	Mobile No.
Dr. S. Sunantha	Coordinator & Record Keeper	Prosthodontics and Crown & Bridge	9994066144
Dr. N. Saravanan	Member	Public Health Dentistry	9442262950
Dr. Saramma Mathew Fenn	Member	Oral Medicine & Radiology	8754569193
Dr. C. Suresh	Member	Oral & Maxillofacial Surgery	9487630871
Dr.S.Ashna	Member	Prosthodontics	9843693385
Saranrakav		Student Member	7708681577
Sampreetha.K		Student Member	6385725788
Mr. N. Vijayasarithi		Student Member	8973689276
Ms. S. P. Kamali		Student Member	8072124825
Mr. A. K. Varadharajan		Non-Teaching Staff Member	9787388309
Mr. I. Sapnath Panea Ray		Non-Teaching Staff Member	9245478556

## Kind Attention To Students Beware Of Ragging

A Student indulging in Ragging can be PUNISHED by:

- CANCELLATION OF ADMISSION.
- Suspension from attending classes.
- Withholding / withdrawing Scholarship / Fellowship & other benefits.
- DEBARRING from appearing in any test / examination or other evaluation process.

# Anti Ragging Squad

Name	Designation	Department	Mobile No.
Dr.Sunantha.S	Member	Prosthodontics and Crown & bridge	9994066144
Dr.M.Assmee	Member	Conservative Dentistry and Endodontics	9789146075
Dr.D.V.Bhuvanesh Kumar	Member	Prosthodontics and Crown & Bridge	9944422297
Dr.M.Subhashini	Member	Conservative Dentistry and Endodontics	9994392006
Dr.Mohammed Adil	Member	Periodontology	7010374054
Dr.Pavithran	Member	Oral & Maxillofacial Surgery	8667720806
Dr.Shanthi	Member	Prosthodontics and Crown & bridge	9384215228
Dr.Saradha	Member	Periodontology	9494046417
Mr.R.Natarajan		Member	9843044140
Mr.E.Prabhu		Member	9677410412
Mr.S.Rajendran		Member	8883078595
Mr.R.Chandran		Member	9360676466
Mr.R.Ravi		Member	9500597046

- Students can contact any member of the squad in case of emergency.

**Highly confidential :-The Complainant will be protected at any cost**

- Withholding results.
- Debarring from representing the institution in any Regional, National or International meet, tournament or Youth festival etc.,
- COLLECTIVE PUNISHMENT: When the persons committing or abetting the crime of ragging are not identified the Institution shall resort to collective punishment as a deterrent to ensure community pressure on potential ragger.

# Code of Conduct Monitoring Committee

Name	Designation	Department	Mobile No.
Dr. J.Baby John	Chairperson	Professor & Dean	9842753645
Dr. Yadav Chakravarthy	Convener – Boys	Conservative Dentistry & Endodontics	8072404507
Dr. Bindu Kamaraj	Convener – Girls	Prosthodontics and Crown & Bridge	9176777876

## ANTI RAGGING COMMITTEE (Details in Pg. No. 16,17)

Dr. S. Sunantha	Coordinator & Record Keeper	Prosthodontics and Crown & Bridge	9994066144
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## GRIEVANCE REDRESSAL CELL

Dr. Bindu Kamaraj	Coordinator & Record Keeper	Prosthodontics and Crown & Bridge	9176777876
Dr. R. Saranyan	Member	Periodontology	9942093071
Dr. J. Arunkumar	Member	Oral & Maxillofacial Surgery	9443273347
Mrs.J.Sudhishna	Senior executive hospital admin		9994619822
Miss.Mahmudha Rila M	Student Member		9361473112

## INTERNAL COMPLAINTS CELL (Sexual Harassment)

Dr. Vyapaka Pallavi	Presiding Officer	Conservative Dentistry & Endodontics	9655465438
Dr. A. Pavithran	Member	Oral & Maxillofacial Surgery	8667720806
Dr. Shantham Krishnamoorthy	Member	Paediatric & Preventive Dentistry	9790228237
Mrs. J. Sudhishna	Member		9994619822
Miss. P. Parimala Jothi	Member		6381770025
Mr. Prem Amirtharaj	External Member		9443288688
Miss. Logeshwari	Student Member		9344574264
Miss. Christeena Benny	Student Member		8281939562
Mr. Vijayasarithi	Student Member		8973689276

# Class Monitoring & Feedback Cell

Name	Designation	Department	Mobile No.
Dr. J. Baby John	Chairperson	Professor & Dean	9842753645
Dr. Saramma Mathew Fenn	Coordinator & Record Keeper	Oral Medicine & Radiology	8754569193
Dr. T. Mercy Vinolia	Member	Paediatric & Preventive Dentistry	9003625744
Dr. A. Aarthee	Member	Oral & Maxillofacial Surgery	7598171088
Dr. Madhushree	Member	Periodontology	9740575508

## Mentor Committee

Name	Designation	Department	Mobile No.
Dr. J. Baby John	Chairperson	Professor & Dean	9842753645
Dr. Vyapaka Pallavi	Coordinator & Record Keeper	Conservative Dentistry & Endodontics	9655465438
Dr. Vanitha D Revankar	PG Mentor	Conservative Dentistry & Endodontics	8122092727
Dr. Diana Prem	CRI Mentor	Oral Pathology and Oral Microbiology	9740575508
Dr. Anitha A	Final Year Mentor	Periodontology	6379448862
Dr. Madhusree	Third Year Mentor	Periodontology	9483544607
Dr. Ambika M	Second Year Mentor	Oral Pathology and Oral Microbiology	9444365461
Dr. Indra Priyadharshini K	First Year Mentor	Oral Pathology and Oral Microbiology	9894105232

# Library Advisory Committee

Name	Designation	Department	Mobile No.
Dr. J. Baby John	Chairperson	Professor & Dean	9842753645
Dr. M. Ambika	Coordinator & Record Keeper	Oral Pathology and Oral Microbiology	9444365461
Dr. Sucratha Susie John	Representative	Oral & Maxillofacial Surgery	7306781299
Dr. A Kumar	Representative	Oral Medicine & Radiology	9787144666
Dr. Prasanta Majumder	Representative	Public Health Dentistry	8431270501
Dr. Mithunraja. S	Representative	Conservative Dentistry and Endodontics	9942099519
Dr. R. Pradeep Daniel Gainneos	Representative	Paediatric & Preventive Dentistry	9952723311
Dr. Mohamed Adhil	Representative	Periodontology	7010374054
Dr. Kasarla Himaja	Representative	Prosthodontics and Crown & Bridge	9959031504
Dr. A. Udhayan	Representative	Orthodontics & Dentofacial Orthopaedics	9865224533
Dr. Ramya C.V	Student UG Member		9597438668
Dr. Nandhinidevi. G	Student PG Member		8072231886
Mrs. Kokila	Librarian		9944718094



# Institutional Research Committee

Name	Designation	Department	Mobile No.
Dr. J. Baby John	Chairperson	Professor & Dean	9842753645
Dr. Reena Rachel John	Convener	Associate Dean - Research	9443118756
Dr. Mathew Jacob	Coordinator & Record Keeper	Oral Pathology and Oral Microbiology	8754569194
Dr. R. Saranyan	Member	Periodontology	9942093071
Dr. G.V.Ramachandra Reddy	Member	Oral Medicine and Radiology	9844065968
Dr. J. Arunkumar	Member	Oral & Maxillofacial Surgery	9443273347
Dr. Yadav Chakravarthy	Member	Conservative Dentistry and Endodontics	9488156929
Dr. Prabhakar Krishnan	Member	Orthodontics and Dentofacial Orthopedics	9843688271
Dr.Veena Arali	Member	Paediatric & Preventive Dentistry	9535444112
Dr. R. Ramesh	Member	Prosthodontics and Crown & Bridge	9443155211
Dr. N. Saravanan	Member	Public Health Dentistry	9442262950
Dr. Maya Ramesh	Member	Oral Pathology and Oral Microbiology	9600918804

# National Service Scheme Cell & Red Ribbon Committee

Name	Designation	Department	Mobile No.
Dr. C. Bharath	Coordinator (NSS)	Public Health Dentistry	8946035788
Dr. A. Pavithran	Member	Oral & Maxillofacial Surgery	8667720806
Dr. Dhanalakshmi	Member	Prosthodontics and Crown & Bridge	9791944160
Dr. C. Manoj	Coordinator (RRC)	Oral & Maxillofacial Surgery	9894592638
Dr. S. Karthikraja	Member	Orthodontics and Dentofacial Orthopedics	7708535296
Dr. B. S. Nandhini	Member	Paediatric & Preventive Dentistry	9677750616

# Student Support Committee

Name	Designation	Department	Mobile No.
Dr. J. Baby John	Chairperson	Professor & Dean	9842753645
Dr. D. Jayachandran	Convener	Periodontology	7708225522
Dr. D. Jayachandran	Students' Council - Faculty Advisor	Periodontology	7708225522
Dr. G.V. Ajith	Fine Arts Club - Faculty Advisor	Orthodontics and Dentofacial Orthopedics	8098585233
Dr. S. Karthikraja	Sports Club - Faculty Advisor	Orthodontics and Dentofacial Orthopedics	7708535296
Dr. G.V. Ajith	College Magazine - Faculty Advisor	Orthodontics and Dentofacial Orthopedics	8098585233
Dr. Kasarla Himaja	Member	Prosthodontics and Crown & Bridge	9959031509
Dr. T. Mercy Vinolia	Member	Paediatric & Preventive Dentistry	7829275353
Dr. P. I. Nainan	Member	Oral & Maxillofacial Surgery	9500235245
Dr. Dinesh Dharshan. S	Member	Conservative Dentistry and Endodontics	8883078595
Mr. S. Rajendran	Physical Education Teacher		8883078595

# VMSDC Media Committee

Name	Designation	Department	Mobile No.
Dr. J. Baby John	Chairperson	Professor & Dean	9842753645
Dr. A. Narendran	Web upgradation in charge	Oral & Maxillofacial Surgery	9940748600
Dr. Maya Ramesh	Social media update in charge	Oral Pathology and Oral Microbiology	9600918804
Dr. Shantamkrishnamoorthy	News Letter - Editor	Paediatric & Preventive Dentistry	9790228237
Dr. J. Shantha Ruban	News Letter - Associate Editor	Conservative Dentistry and Endodontics	9952163866

# Institutional Innovation Cell

Name	Designation	Department	Mobile No.
Dr Reena Rachel John	Asst. Dean Research / Advisor	Oral & Maxillofacial Surgery	9443118756
Dr G Raj Kumar	President	Prosthodontics & Crown and Bridge	9443285888
Dr Sabitha Gokul Raj	Vice President	Oral Medicine & Radiology	7708225522
Dr Divya Krishnamoorthi	Convenor	Prosthodontics & Crown and Bridge	9150299824
Dr Indrapriyadarshini	ARIIA Coordinator	Oral Pathology & Oral Microbiology	9840706554
Dr Saravanan N	NIRF & NISP Coordinator	Public Health Dentistry	9894105232
Dr Vanitha D	IPR Coordinator	Conservative & Endodontics	9442262950
Dr Ajith GV	Startup & Entrepreneurship activity Coordinator	Orthodontics & Dentofacial Orthopaedics	8122092727
Dr John Paul	Incubation activity Coordinator	Prosthodontics & Crown and Bridge	8098585233
Dr Kumar A	Social Media Coordinator	Oral Medicine & Radiology	8883670136
Dr Shanthakumari	IIC Activity Coordinator	Public Health Dentistry	9787144666
Dr Jayachandran	Student Coordinator	Periodontology	9443420681
Dr Shanthi	Member	Prosthodontics & Crown and Bridge	9384215228
Dr Mercy	EDTN Coordinator	Paediatric & Preventive Dentistry	9003625744

# Student Conference Committee

Name	Designation	Department	Mobile No.
Dr J Baby John	Chair Person	Professor & Dean	9842753645
Dr Mano Vijay	Coordinator	Periodontology	9952716937
Dr Saranyan R	Core Member	Periodontology	9842748071
Dr Sekar B	Core Member	Oral Pathology & Oral Microbiology	9976840554
Dr Jayachandran	Core Member	Periodontology	7708225522
Dr Sabitha Gokul Raj	Core Member	Oral Medicine & Radiology	9150299824
Dr Divya Krishnamoorthi	Core Member	Prosthodontics & Crown and Bridge	9840706554

# Tentative Academic Calendar

Date	Day	Event
<b>SEP 2023</b>		
11.09.2023	Monday	I Year BDS Commences
12.09.2023	Tuesday	DEEKSHARAMBH - Student Induction Program
18.09.2023	Monday	Vinayakar Chathurthi - Holiday
19.09.2023	Wednesday	White Coat Ceremony
23.09.2023	Saturday	Fourth Saturday Holiday
<b>OCT 2023</b>		
02.10.2023	Monday	Gandhi Jayanthi - Holiday
14.10.2023	Saturday	Second Saturday - Holiday
23.10.2023	Monday	Ayutha Pooja - Holiday
24.10.2023	Tuesday	Vijaya Dasami - Holiday
28.10.2023	Saturday	Fourth Saturday Holiday
<b>NOV 2023</b>		
11.11.2023	Saturday	Second Saturday Holiday
12.11.2023	Sunday	Deepavali
25.11.2023	Saturday	Fourth Saturday Holiday
<b>DEC 2023</b>		
01.12.2023	Friday	I Internal Assessment General anatomy
02.12.2023	Saturday	I Internal Assessement Physiology & Biochemistry
07.12.2023	Thursday	I Internal Assessement Dental Anatomy
09.12.2023	Saturday	Second Saturday holiday
23.12.2023	Saturday	Winter vacation starts I BDS
<b>JAN 2024</b>		
02.01.2024	Tuesday	College Reopens
12.01.2024	Friday	Problem Based Learning Session 1
13.01.2024	Saturday	Second Saturday Holiday
15.01.2024	Monday	Pongal holiday
16.01.2024	Tuesday	Thiruvalluvar Day
17.01.2024	Wednesday	Uzhavar Thirunal - Holiday
25.01.2024	Thursday	Problem Based Learning Session 2
26.01.2024	Friday	Republic day - Holiday
27.01.2024	Saturday	Fourth Saturday Holiday
<b>FEB 2024</b>		
03.02.2024	Saturday	Parents Teachers Meeting
10.02.2024	Saturday	Second Saturday
24.02.2024	Saturday	Fourth Saturday Holiday

Date	Day	Event
<b>MARCH 2024</b>		
07.03.2024	Thursday	II Internal Assessment General Anatomy
08.03.2024	Friday	II Internal Assessment Physiology & Biochemistry
09.03.2024	Saturday	Second Saturday
15.03.2024	Friday	II Internal Assessment Dental Anatomy
16.03.2024	Saturday	II Internal Assessment Environmental Studies
23.03.2024	Saturday	Fourth Saturday Holiday
29.03.2024	Friday	Good Friday - Holiday
<b>APRIL 2024</b>		
10.04.2024	Wednesday	Ramzan Holiday
13.04.2024	Saturday	Second Saturday
14.04.2024	Sunday	Tamil new year
27.04.2024	Saturday	Fourth Saturday Holiday
<b>MAY 2024</b>		
01.05.2024	Wednesday	May day - Holiday
11.05.2024	Saturday	Second Saturday
18.05.2024	Saturday	Summer Vacation Begins - Main Batch
<b>JUNE 2024</b>		
03.06.2024	Monday	College Reopens
08.06.2024	Saturday	Second Saturday
17.06.2024	Monday	Bakrid Holiday
21.06.2024	Friday	Model Exam General Anatomy
22.06.2024	Saturday	Fourth Saturday Holiday
27.06.2024	Thursday	Model Exam Physiology and Biochemistry
28.06.2024	Friday	Model Exam Dental Anatomy
29.06.2024	Saturday	Model Exam Environmental Studies
<b>JULY 2024</b>		
13.07.2024	Saturday	Second Saturday Holiday
27.07.2024	Saturday	Fourth Saturday Holiday
<b>AUG 2024</b>		
17.08.2024	Saturday	Study holiday begins
27.08.2024	Tuesday	University exam starts tentatively
<b>August 2024 - University Exam Begins (2023-2024 Batch)</b>		

Practical / Clinical Examination will commence within a week after completion of theory examination

**Note:** \*2nd and 4th Saturdays of every month are holidays  
\*- subject to change according to the situation.

## Tentative Examination Schedule (2023 – 2024 Main Batch)

Subject	I Internal Examination	II Internal Examination	Model Examination	University Theory Examination
General Human Anatomy including Embryology and Histology	01.12.2023	07.03.2024	21.06.2024	Theory exam commences tentatively on August 2024 followed by University practical examinations
General Human Physiology and Biochemistry, Nutrition and Diagnostics	02.12.2023	08.03.2024	27.06.2024	
Dental Anatomy, Embryology and Oral Histology	07.12.2023	15.03.2024	28.06.2024	
Environmental studies	-	16.03.2024	29.06.2024	

\*Practical / Clinical examinations will commence within a week after completion of theory examinations

## Tentative University Examination Schedule ( 2023 -2024 )

Subject	Model Examination	University Theory Examination
General Human Anatomy including Embryology and Histology	27.08.2024	Theory exam commences tentatively on 2nd week of September 2024 followed by University practical examinations
General Human Physiology and Biochemistry, Nutrition and Diagnostics	29.08.2024	
Dental Anatomy, Embryology and Oral Histology	31.08.2024	
Environmental studies	03.09.2024	

# BDS Curriculum

BDS Curriculum is available in VMSSDC website and is subject to change from time to time based on council norms.

## Subjects Of Study

### First Year

- i) General Human Anatomy including Embryology and Histology
- ii) General Human Physiology and Biochemistry, Nutrition and Diagnostics
- iii) Dental Anatomy, Embryology and Oral Histology
- iv) Dental Materials
- v) Pre-clinical Prosthodontics and Crown & Bridge

### Second Year

- i) General Pathology and Microbiology
- ii) General and Dental Pharmacology and Therapeutics
- iii) Dental Materials
- iv) Pre clinical Conservative Dentistry
- v) Pre clinical Prosthodontics and Crown & Bridge
- vi) Oral Pathology & Oral Microbiology

### Third Year

- i) General Medicine
- ii) General Surgery
- iii) Oral Pathology and Oral Microbiology
- iv) Dental Engineering
- v) Conservative Dentistry and Endodontics
- vi) Oral & Maxillofacial Surgery
- vii) Oral Medicine and Radiology
- viii) Orthodontics & Dentofacial Orthopaedics
- ix) Paediatric & Preventive Dentistry
- x) Periodontology
- xi) Prosthodontics and Crown & Bridge

## Fourth Year

### I) Orthodontics & dentofacial orthopaedics

- ii) Oral Medicine & Radiology
- iii) Paediatric & Preventive Dentistry
- iv) Periodontology
- v) Oral & Maxillofacial Surgery
- vi) Prosthodontics and Crown & Bridge
- vii) Conservative Dentistry and Endodontics
- viii) Public Health Dentistry

## Value-Added Courses:

The following Value-added courses are available for students. Value Added Courses are aimed to enhance the life of the students and thereby improve employability. Out of the 4, each student can join one course before completion of their final year.

S.No.	Course Code	Name of the Course	Participants
1.	VA 128	Introduction to MS Office	UG & PG
2.	VA 122	Gst for Dental Practice	UG & PG
3.	VA 138	Sign language for Special need Patients	UG & PG
4.	VA 200	Soft skill development on English Language	UG & PG

## Compulsory Rotating Paid Internship (CRI)

A pass in all the eight subjects is mandatory for completion of the 4th BDS Course before undergoing internship programme. The internship shall be compulsory and rotating as per the DCI norms. Twelve days of casual leave can be availed with prior intimation. Any absentism without informing will lead to disciplinary action. Participation in Implant Training and Placement of implant is compulsory for getting NOC before completion of CRI. The degree- BDS shall be granted after completion of internship.



# I Year Subjects

S.No.	SUBJECT	MARKS	
		THEORY	PRACTICAL
1.	General Anatomy Including Embryology & Histology	100	100
2.	General Human Physiology & Biochemistry, Nutrition & Diagnostics	100	100
3.	Dental Anatomy, Embryology & Oral Histology	100	100
4.	Environmental Studies	100	100
5.	Dental Materials*		
6.	Pre Clinical Prosthodontics And Crown And Bridge*		

\* University Exam will be conducted at the end of II BDS

## Theory & Practical Mark Distribution for all Subjects \* :

Theory - 100 Mark		Practicals / Clinicals - 100 Mark	
University written exam	70	University exam	90
Viva voice	20	Internal assessment	10
Internal assessment	10	Total	100
Total	100		

## \* Except Environmental studies

Theory - 100 Mark		<b>No Practical</b>
University written exam	75	
Internal assessment	25	
Total	100	

# General Anatomy Including Embryology & Histology

## I B.d.s. (Paper - I)

### **Introduction To Anatomy:**

Anatomical terms - Introduction to Osteology - Introduction to joints & Muscles - Introduction to Nervous system - central and peripheral Nervous system Autonomic Nervous system - Introduction to Blood Vessels - Integumentary system.

### **Embryology:**

Gametogenesis - Fertilization - Ectopic & normal implantation - Development from zygote to chorion - Formation of notochord - neural tube - neural crest - Formation of the trilaminar germ disc - Folding of the embryo - Foetal membranes - Development of face - nose - lips - oral cavity & jaw - Development of branchial arches - pouches - clefts & their derivatives - (Tongue, tonsil, thymus, thyroid, parathyroid, ear cavities) - Development of Teeth.

### **Gross Anatomy:**

#### **1. Dissection:**

Regional dissection of head & neck Cunningham's manual of practical anatomy - (vol: 3 - latest edition)

#### **2. Lectures: A. Osteology:**

I. Vertebrae in general

II. Cervical vertebrae in detail

III. Skull - general architecture - Interior of Cranium - Exterior of Cranium - Norma Verticalis - Norma Occipitalis - Norma Lateralis - Norma Basalis.

IV. Individual skull bones - mandible - sphenoid - parietal - frontal - maxilla - temporal - occipital - etc.,

#### **B. Soft Parts:**

Scalp & temple - muscle - vessels & nerves - Face - muscles, vessels & nerves - (Including extra-cranial course of VII nerve) Posterior triangle - boundaries and contents Back - Suboccipital triangle boundaries and contents - Anterior triangle - subdivisions - boundaries & contents - (Carotid, digastric, submental and muscular triangles) - Median region of the front of the neck - Cervical fascia Anterior jugular vein - Platysma - Sternocleidomastoid - Cranial cavity - duramater - layers - folds - Dural venous sinuses - Meningeal vessels - emissary veins - Cranial fossae and their contents - Lacrimal apparatus and structure of eyelid - Orbit - muscles, vessels cranial nerves (ii, iii, iv, v, vi) - Orbital periosteum - Facial sheath of eyeball-Deep dissection of neck - Thymus - Thyroid and parathyroid - Subclavian artery - I & II parts - Brachiocephalic veins - Thoracic duct, scalene muscles, phrenic nerve - Trachea - Oesophagus - Cranial nerves - intracranial course of VII, VIII, IX, X, XI, XII, cranial nerves - Cervical sympathetic trunk - Cervical plexus - Lymphatic drainage of head & neck Pre - vertebral region - Parotid region - Temporal and infra temporal regions including muscles of mastication and - Temporo - mandibular joint - Submandibular region - submandibular and sublingual glands.

## **Joints of the neck:**

## **Mouth & Pharynx:**

Roof & vestibule of the mouth Muscles of pharynx - Subdivisions of the cavity of pharynx - Tonsil - palate - pharyngo - tympanic tube - Adenoids - carotid canal.

## **Tongue, Nose & nasal cavity:**

Apertures - lateral wall - septum of-Nose - floor - roof - blood vessels - nerves.

## **Paranasal air sinuses:**

Frontal sinus - Maxillary sinus.

## **Larynx:**

Wall - muscles - ligaments - cartilages - cavity - subdivisions - Vocal cord.

## **Organs of hearing and equilibrium:**

External ear - Middle ear - Internal ear.

## **Eyeball:**

## **NEURO ANATOMY:**

### **Spinal cord:**

Coverings of meninges - Contents of vertebral canal - Gross anatomy of spinal cord - Regional differentiation - Blood Supply.

### **Brain:**

Meninges - Sub arachnoid cisterns - Blood supply of brain - External surface of base of brain - Hind brain - medulla - Pons - external and Internal features and cranial nerves attached - Cerebellum - Subdivisions & functions - Fourth ventricle - Mid brain - Cerebrum - sulci gyri - White matter of cerebrum - Lateral ventricle - 3rd ventricle - Thalamus - Geniculate bodies - Internal capsule - Basal ganglia.

### **Lungs & pleura:**

### **Heart:**

Pericardium & its blood vessels

### **Abdomen: Subdivisions -**

Location of the abdominal organs - blood supply - nerve supply.

## **HISTOLOGY:**

Structure of epithelium - different types - connective tissue - Fibers & cells - Bone  
- Cartilage - Muscles - Blood vessels

### **Lymphatic tissue:**

Lymph node - tonsil - spleen & thymus

### **Alimentary system:**

Salivary glands - tooth - Oesophagus - Stomach - Liver Pancreas.

**Reproductive system:**

Testis - Ovary - uterus

**Eye:**

Cornea - retina

**Skin:**

Thin skin - thick skin

**Respiratory system:**

Trachea - lungs

**Urinary system:**

Kidney - Ureter - Urinary bladder

**Nervous system:**

Spinal cord - Cerebrum - Cerebellum - Medulla - Endocrines.

**Endocrine System:**

Pituitary - Thyroid - Parathyroid - Supra - renal gland.

**Genetics:**

Chromosomes - karyotyping - chromosomal abnormalities - Barr body - Modes of Inheritance - Gene structure - Mutation - Prenatal diagnosis - Genetics counseling.

**Demonstration:**

1. Demonstration of dissected specimens
2. Embryology Models & Charts
3. Histology slides

**Recommended Textbooks:**

B.D. Chaurasia's Human Anatomy for Dental Students

B.D. Chaurasia's General Anatomy

The book of Human Histology - Yogesh Sontakke

Inderbir Singh's Human Embryology

Histology Practical Manual - Balakrishna Shetty

Human Genetics - S.D. Gangane

**General Anatomy Including Embryology And Histology Model Question Paper (Paper - I)**

<p><b>SECTION - A : 35 Marks</b></p> <ul style="list-style-type: none"> <li>• Gross anatomy of head</li> <li>• General anatomy</li> <li>• General histology</li> <li>• General embryology</li> <li>• Genetics</li> </ul>	<p><b>SECTION - B : 35 Marks</b></p> <ul style="list-style-type: none"> <li>• Gross anatomy of neck</li> <li>• Systemic histology</li> <li>• Systemic embryology</li> <li>• Gross anatomy of neuroanatomy</li> </ul>
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## Section - A

S.No.	Topics	Essay (1X10=10 Marks)	SAQ (3X5=15 Marks)	MCQs (10X1=10 Marks)	Total Marks
1.	Gross Anatomy of head	1X10=10	2X5=10 (region not covered in Essay)	4X1 =04 (Gross anatomy of head, region not covered in Essay/SAQ)	24
2.	General anatomy			2X1=02	02
3.	General histology		1X5=05	2X1=02	07/02
4.	General embryology			1X1=01	06/10
5.	Genetics			1X1=01	01
	<b>Total</b>	<b>10</b>	<b>15</b>	<b>10</b>	<b>35</b>

## Section - B

S.No.	Topics	Essay (1X10=10 Marks)	SAQ (3X5=15 Marks)	MCQs (10X1=10 Marks)	Total Marks
1.	Gross anatomy of neck	1X10=10	1X5=05 (Gross Anatomy of neck region not covered in Essay)	4X1 =04 (Gross Anatomy of neck region not covered in Essay/SAQ)	19
2.	Systemic histology		1X5=05	2X1=02	07/02
3.	Systemic embryology			2X1=02	07/02
4.	Gross Anatomy of neuroanatomy		1X5=05	2X1=02	07
	<b>Total</b>	<b>10</b>	<b>15</b>	<b>10</b>	<b>35</b>

## PRACTICALS

The Anatomy Practical Examination shall be for 90 marks as follows : 30 spotters X 3 marks= 90 marks

Gross: 20 spotters

(13 Head and Neck + 02 Neuroanatomy + 05Thorax and Abdominal organs) Histology: 10 spotters (03 General histology + 07 Systemic histology)

University Exam (Practicals) = 90 Marks

Internal assessment (Practicals) = 10 Marks

**Total = 100 Marks**

# **General Human Physiology & Biochemistry I - B.d.s. (Paper - II)**

## **Section A :**

### **General Human Physiology**

#### **Unit I: General Physiology**

1. The Structure and Function of a Cell
2. Transport Mechanisms Across Cell Membranes
3. Body Water and Body Fluids
4. The Membrane Potentials

#### **Unit II: Blood**

5. Composition and Functions of Blood
6. The Plasma Proteins
7. Haemoglobin
8. Erythrocyte Red Blood Corpuscle
9. Jaundice
10. Leucocyte White Blood Corpuscle
11. Platelets or Thrombocytes
12. Coagulation of Blood and Bleeding Disorders
13. Blood Groups
14. Lymphoid Tissues and Lymph
15. Immunity (The Immune System)

#### **Unit III: Nerve Muscle Physiology**

16. Structure and Function of Nervous Tissues
17. Physiological Properties of the Nerve Fibres
18. Nerve Fibre Types and Functions
19. Neuromuscular Junction
20. Skeletal Muscle
21. Cardiac Muscle
22. Smooth Muscle

#### **Unit IV: Digestive System**

23. Physiological Anatomy of Gastrointestinal Tract
24. Physiology of Salivary Secretion
25. The Mouth and the Oesophagus
26. The Stomach
27. The Pancreas
28. The Liver and The Gall Bladder
29. The Small Intestine
30. The Large Intestine (Colon)
31. Digestion and Absorption in the GIT

## **Unit V: Cardiovascular System**

32. Physiological Anatomy of the Heart
33. The Cardiac Cycle
34. Normal Electrocardiogram
35. General Principles of Circulation
36. Cardiovascular Regulatory Mechanisms
37. Heart Rate
38. Cardiac Output
39. Arterial Blood Pressure
40. Physiology of Shock

## **Unit VI: The Respiratory System**

41. Physiological Anatomy of the Respiratory System
42. Mechanics of Respiration
43. Transport of Gases
44. Regulation of Respiration
45. Hypoxia
46. Physiology of Exercise

## **Unit VII: The Excretory System**

47. Physiological Anatomy of the Kidney
48. Mechanism of Formation of Urine
49. Mechanism of Concentration and Dilution of Urine - The Counter Current System
50. Acidification of Urine
51. Regulation of Volume and Concentration of Body Fluids
52. Physiology of Micturition
53. Regulation of Body Temperature in Humans

## **Unit VIII: Endocrine System**

54. General Principles of Endocrinology
55. The Pituitary Gland
56. The Thyroid Gland
57. The Parathyroids, Calcitonin and Vitamin D
58. The Adrenal Cortex
59. The Adrenal Medulla
60. The Pancreas
61. The Thymus and The Pineal Gland

## **Unit IX: Reproductive System**

62. Physiology of Reproduction
63. The Male Reproductive System
64. The Female Reproductive System
65. Contraceptive Measures
66. The Physiology of Pregnancy

## **Unit X: The Nervous System**

67. Organisation of the Nervous System
68. The Synapse
69. Sensory Receptors
70. Reflexes
71. The Sensory System
72. The Motor Areas and Descending Tracts
73. The Autonomic Nervous System
74. The Vestibular Apparatus (Labyrinth)
75. Control of Body Movement and Posture
76. The Reticular Formation, Cerebellum and Basal Ganglia
77. The Thalamus and the Hypothalamus
78. The Cerebral Hemisphere (Cerebrum)
79. Higher Functions of the Nervous System
80. Cerebrospinal Fluid and Blood Brain Barrier

### **Recommended Textbooks**

Textbook of Physiology BDS - G. K. pal  
Understanding for Medical Physiology - R.L. Bijalani  
Manual of Practical Physiology - A.K. Jain

## **Section B :**

### **Biochemistry**

#### **1. Cell structure and its functions**

Subcellular cell organelles, membrane & transport.

#### **2. Carbohydrates :**

Definition and Classification - Biological importance monosaccharide - stereo isomerism - Epimers reactions - Benedicts reaction - Osazones - Glycosides - Amino sugars - Deoxy sugars. Disaccharides - Maltose - Lactose - Sucrose - Polysaccharides - Starch - Glycogen - Cellulose - Mucopolysaccharides.

#### **3. Lipids :**

Definition and Classification - Biological Importance - Triglycerides - Phospholipids - derived lipids - cholesterol - bile salts - prostaglandins.

#### **4. Enzymes :**

Definition - classification - Coenzymes - Mode of action of enzymes - Active center - specificity. Inhibitors of various kinds. Cofactors - Regulation of enzyme activity

#### **5. Vitamins :**

Definition - Classification - daily requirements - sources - deficiency manifestations - Fat soluble vitamins A,D,E,K, - water soluble vitamins B complex and vitamin C. Introduction to Anti vitamins and Hyper vitaminosis.



## **6. Minerals :**

Classification - daily requirement - Calcium - phosphorus - Magnesium. Iron sources - uptake - excretion - function - serum calcium regulation etc. Trace elements - functions - deficiency and excess.

## **7. Electron Transport Chain - Oxidative phosphorylation.**

Free radicals, antioxidants.

## **8. Metabolism of Carbohydrates :**

Digestion & absorption. Glycolysis - oxidation of pyruvate - Citric acid cycle - glycogenolysis - Glycogenesis - Gluconeogenesis - Pentose phosphate pathway - significance. Cori cycle - Glycogen storage diseases - metabolism of fructose - Galactose - Galactosemia - glucuronic acid pathway. Blood glucose maintenance.

## **9. Metabolism of Lipids :**

Digestion & absorption - transport - lipoproteins - chylomicrons - VLDL, LDL, HDL. Metabolism of fatty acid - Beta oxidation of fatty acid. Synthesis of fatty acid. Formation of ketone bodies and utilization - metabolism of Cholesterol. Lipid storage diseases.

## **10. Proteins :**

Definition and Classification - Biological importance - amino acids properties and reactions - structure of proteins. Primary and secondary, tertiary and quaternary - Connective tissue - Collagen & Elastin. Glycosaminoglycans. Bone structure - structure of membranes - Exocytosis & Endocytosis Isoelectric PH - Chromatography - electrophoresis.

## **11. Nucleic Acids :**

Definition. Building units. Nucleosides - Nucleotides - outline structure of DNA & RNA. High energy compounds. ATP - Phosphorylation - Enol phosphates etc.

## **12. Haemoglobin :**

Structure and properties - Non heme prophyrin. Metabolism of hemoglobin, bilirubin metabolism.

## **13. Metabolism of Proteins :**

Digestion & absorption - Formation of Ammonia - Formation of urea - transamination - transmethylation - introduction to functions of amino acids. Protein utilization for energy (glucogenic and ketogenic amino acids). Inborn error of Metabolism of amino acids and special function of amino acids - Glycine. Phenylalanine, tyrosine, tryptophan, histidine and sulphur containing amino acids etc.

## **14. Integration of Metabolism & Hormone Regulation :**

## **15. Biochemical genetics :**

Introduction to Nucleotides. Formation & degradation. DNA as genetic materials Introduction to Replication & Transcription. Formation & function of RNA - Genetic code & Mutation. Outline of Translation process.

Antimetabolites & antibiotics interfering in replication. Transcription & Translation.  
Introduction to cancer & oncogenes.

## **16. Xenobiotics and Antioxidants**

## **17. Acid Base and Electrolyte Balance**

## **18. Clinical Biochemistry**

Regulation of Blood glucose. Diabetes mellitus & related disorders. Evaluation of glycemic index - Hypo & hyperglycemia. Hyper lipoproteinemias - Atherosclerosis - Jaundice. Classification & evaluation of Liver function tests - electrophoretic pattern of serum proteins - Kidney function tests - Acid base imbalance. Electrolyte imbalance - Gout, Muscular dystrophy - Enzyme of clinical diagnosis. Normal values of blood constituents.

### **Recommended Books**

Text Book of Biochemistry - D.M. Vasudevan

Text Book of Biochemistry for Dental students - D.M. Vasudevan Text Book of Biochemistry - Sathyanarayanan

### **Reference Books**

Harpers Biochemistry - R.K. Murray

Text Book of Biochemistry with clinical correlations - T.N. Devlin Lippincotts Biochemistry - Champe

# Practicals And Demonstrations

## General Human Physiology

### PRACTICALS

1. Enumeration of Red blood cells
2. Enumeration of White blood cells
3. Differential leucocyte count
4. Estimation of haemoglobin
5. Determination of blood groups
6. Determination of bleeding time and clotting time
7. Determination of pulse and blood pressure
8. Clinical examination of respiratory system
9. Clinical examination of cardiovascular system

### DEMONSTRATIONS

1. Erythrocyte sedimentation rate.
2. Packed cell volume.
3. Specific gravity.
4. Osmotic fragility.
5. Electrocardiogram.
6. Properties of excitable, tissue skeletal / cardiac muscle.
7. Activity of frogs heart, effects of vagal stimulation and of atropine and adrenaline
8. Perfusion of Frog's heart, effects of sodium, calcium and potassium ions.

# Practicals And Demonstrations Biochemistry

### PRACTICALS

1. Qualitative analysis  
Carbohydrates - monosaccharides - disaccharides - polysaccharides
2. Colour reactions of proteins & aminoacids
3. Identifications of non protein nitrogen substances
4. Normal Constituents of urine
5. Abnormal urine constituents
6. Quantitative Estimations - Glucose - Urea - Creatinine - Serum proteins.

### DEMONSTRATION

1. Hydrolysis of starch
2. Paper electrophoresis
3. Chromatography

### CLINICAL DATA EVALUATION

1. Profiles of GTT
2. Lipid profiles
3. Profiles of liver function
4. Profiles of kidney function
5. Blood gas profile in acidosis / alkalosis

# General Human Physiology & Biochemistry

## Model Question Paper (Paper - II)

### Section - A General Human Physiology

S.No.	Topics	Essay (1X10=10 Marks)	SAQ (3X5=15 Marks)	MCQs (10X1=10 Marks)	Total Marks
1.	Cardiovascular system/ Endocrinology/ Central Nervous system	1X10=10	1 from system not covered in Essay 1x5=5 marks	From systems except one covered in essay 3x1=3 marks	18
2.	Respiratory system / Renal system/ Gastrointestinal system	-	1X5=05	System from which SAQ is not asked 2x1=2 marks	7
3.	Blood/ Nerve physiology	-	1X5=05	2x1=2	7
4.	General physiology/ Reproductive system/ Special senses	-	-	3x1=3	3
<b>Total</b>		<b>10</b>	<b>15</b>	<b>10</b>	<b>35</b>

### Section - B Biochemistry

S.No.	Topics	Essay (1X10=10 Marks)	SAQ (3X5=15 Marks)	MCQs (10X1=10 Marks)	Total Marks
1.	Carbohydrates / Proteins/ Vitamins	1X10=10	1x5=5 Marks (From topic not covered in essay)	2 Marks	17
2.	Lipids Enzymes Hemoglobin Nucleic acid chemistry & metabolism Molecular Biology Acid base balance Function tests Vitamins Minerals Chemistry of Carbohydrates * Chemistry of Proteins	-	2X5=10	3 Marks	13
3.	Cancer, Tumour markers & AIDS Hormones	-	-	1 Mark	01
4.	Cell & Body fluids	-	-	1 Mark	01
5.	Energy & Nutrition	-	-	1 Mark	01
6.	Free radicals & Detoxification	-	-	1 Mark	01
7.	METC	-	-	1 Mark	01
<b>Total</b>		<b>10</b>	<b>15</b>	<b>10</b>	<b>35</b>

\* Includes Topics from which essay question will not be asked.

Marks of Viva voice (20 Marks) conducted during practical examination will be added along with the University theory written examination

# General Human Physiology & Biochemistry

## Practicals

Practicals	General Human Physiology	Biochemistry
University Exam	45 Marks	45 Marks
Internal assessment	5 Marks	5 Marks
<b>Total</b>	<b>50 Marks</b>	<b>50 Marks</b>

## Physiology Practicals

1. Major	20 Marks
2. Minor	15 Marks
3. Charts and calculations	10 Marks
<b>Total</b>	<b>45 Marks</b>

## Biochemistry Practicals

1. Quantitative	15 Marks
2. Qualitative	15 Marks
3. Spotters	10 Marks
4. Charts	5 Marks
<b>Total</b>	<b>45 Marks</b>

Marks of Viva voice (20 Marks) conducted during practical examination will be added along with the University theory written examination

# Dental Anatomy, Embryology And Oral Histology

## I - B.d.s. (Paper - III)

Oral Biology course includes instructions in the subject of Dental Morphology, Oral Embryology, Oral Histology and Oral Physiology.

Introduction - Oral Biology - a composite of basic Dental Sciences & their clinical applications.

### Skills

The student should acquire basic skills in :

1. Carving of permanent teeth in wax.
2. Microscopic study of Oral tissues.
3. Identification of Deciduous & Permanent teeth.
4. Age estimation by patterns of teeth eruption from plaster casts of different age groups.

### Objectives

After a course on oral biology,

1. The student is expected to appreciate the normal development, morphology, structure & functions of oral tissues & variations in different pathological / non - pathological states.
2. The student should understand the histological basis of various dental treatment procedures and physiologic ageing process in the dental tissues.
3. The students must know the basic knowledge of various research methodologies.

## I. Tooth Morphology

### 1. Introduction to tooth morphology

Human dentition, types of teeth & functions, Palmer's & Binomial notation systems, tooth surfaces, their junctions - line angles & point angles, definition of terms used in dental morphology, geometric concepts in tooth morphology, contact areas & embrasures - Clinical significance.

### 2. Morphology of permanent teeth

Description of individual teeth, along with their endodontic anatomy & including a note on their chronology of development, differences between similar class of teeth & identification of individual teeth.

Variations & Anomalies commonly seen in individual teeth.

### 3. Morphology of Deciduous teeth

Generalized differences between Deciduous & Permanent teeth. Description of individual deciduous teeth, including their chronology of development, endodontic anatomy, differences between similar class of teeth & identification of individual teeth.

### 4. Occlusion

Definition, factors influencing occlusion - basal bone, arch, individual teeth, external & internal forces & sequence of eruption. Inclination of individual teeth - compensatory curves. Centric relation & Centric occlusion - protrusive, retrusive & lateral occlusion. Clinical significance of normal occlusion.

## **II. Oral Embryology**

1. Brief review of development of face, jaws, lip, palate & tongue, with applied aspects.

### **2. Development of teeth**

Epithelial mesenchymal interaction, detailed study of different stages of development of crown, root & supporting tissues of tooth & detailed study of formation of calcified tissues. - Applied aspects of disorders in development of teeth.

### **3. Eruption of deciduous & Permanent teeth**

Mechanisms in tooth eruption, different theories & histology of eruption, formation of dentogingival junction, role of Gubernacular cord in eruption of permanent teeth. Clinical or applied aspects of disorders of eruption.

### **4. Shedding of teeth**

Factors & mechanisms of shedding of deciduous teeth. Complications of shedding.

## **III. Oral Histology**

1. Detailed microscopic study of Enamel, Dentine, Cementum & Pulp tissue. Age changes & Applied aspects (Clinical and forensic significance) of histological considerations - fluoride applications, transparent dentine, dentine hypersensitivity, reaction of pulp tissue to varying insults to exposed dentine ; Pulp calcifications & Hypercementosis.

2. Detailed microscopic study of Periodontal ligament & alveolar bone, age changes, histological changes in periodonal ligament & bone in normal & orthodontic tooth movement, applied aspects of alveolar bone resorption.

3. Detailed microscopic study of Oral Mucosa, variation in structure in relation to functional requirements, mechanisms of keratinization, clinical parts of gingiva, Dentogingival & Mucocutaneous junctions & lingual papillae. Age changes & clinical considerations.

### **4. Salivary Glands**

Detailed microscopic study of acini & ductal system. Age changes & clinical considerations.

### **5. TM Joint**

Review of basic anatomical aspects & microscopic study & clinical considerations.

## **6. Maxillary Sinus**

Microscopic study, anatomical variations, functions & clinical relevance of maxillary sinus in dental practice.

## **7. Processing of Hard & soft tissues for microscopic study**

Ground sections, decalcified sections & routine staining procedures.

## **8. Basic histochemical staining patterns of oral tissues.**

# **IV. ORAL PHYSIOLOGY**

## **1. Saliva**

Composition of saliva - variations, formation of saliva & mechanisms of secretion, salivary reflexes, brief review of secretomotor pathway, functions, role of saliva in dental caries & applied aspects of hyper & hypo salivation.

## **2. Mastication**

Masticatory force & its measurement - need for mastication, peculiarities of masticatory muscles, masticatory cycle, masticatory reflexes & neural control of mastication.

## **3. Deglutition**

Review of the steps in deglutition, swallowing in infants, neural control of deglutition & dysphagia.

## **4. Calcium, Phosphorous & fluoride metabolism**

Source, requirements, absorption, distribution, functions & excretion, clinical considerations, hypo & hypercalcemia & hyper & hypo phosphatemias & fluorosis.

## **5. Theories of Mineralization**

Definition, mechanisms, theories & their drawbacks. Applied aspects of physiology of mineralization, pathological considerations - calculus formation.

## **6. Physiology of Taste**

Innervation of taste buds & taste pathway, physiologic basis of taste sensation, age changes & applied aspects - taste disorders.

## **7. Physiology of Speech**

Review of basic anatomy of larynx & vocal cords. Voice production, resonators, production of vowels & different consonants - Role of palate, teeth & tongue. Effects of dental prosthesis & appliances on speech & basic speech disorders.



# Dental Anatomy, Embryology And Oral Histology Practicals And Demonstrations

## Demonstration

1. Demonstration of carving of all permanent teeth using wax block (Natural teeth size)
2. Demonstration of Age estimation in deciduous, mixed & permanent dentition models
3. Demonstration of Tissue processing
4. Demonstration of preparation of ground section & Decalcified sections
5. Identification of deciduous & permanent teeth
6. Histology slides of oral & paraoral structures

## Practicals

1. Carving of all permanent teeth using wax block ( Natural teeth size)
2. Age estimation in deciduous, mixed & permanent dentition models
3. Histology slides of oral & paraoral structures
4. Identification of deciduous & permanent teeth

## Recommended Text Books

1. Orban's Oral Histology & Embryology - G.S. Kumar
2. Text book of Oral Anatomy Histology Physiology & Tooth Morphology  
- K. Rajkumar, R. Ramya
3. Tencate's Oral Histology
4. Oral Development & Histology - James & Avery
5. Wheeler's Dental Anatomy, Physiology & Occlusion - Major.M.Ash
6. Dental Anatomy - its relevance to dentistry - Woelfel & Scheid
7. Applied Physiology of the mouth - Lavelle
8. Physiology & Biochemistry of the mouth - Jenkins

# Dental Anatomy, Embryology And Oral Histology (Paper - III)

## Section - A : Oral Histology & Embryology

Essay Question	1x10 Marks	= 10 Marks
Short Notes	3x5 Marks	= 15 Marks
Multiple Choice Questions(MCQ)	10x1 Marks	= 10 Marks
<b>Total</b>		<b>= 35 Marks</b>

## Section - B : Tooth Morphology, Oral Anatomy & Oral Physiology

Essay Question	1x10 Marks	= 10 Marks
Short Notes	3x5 Marks	= 15 Marks
Multiple Choice Questions(MCQ)	10x1 Marks	= 10 Marks
<b>Total</b>		<b>= 35 Marks</b>

**Total = 70 Marks**

## PRACTICALS

Histology slides	8 x 5 marks	40 Marks
Age estimation models	2 x 5 marks	10 Marks
Natural teeth spotters	4 x 2½ marks	10 Marks
Tooth carving		30 Marks
University Exam (Practicals)	=	90 Marks
Internal assessment (Practicals)	=	10 Marks
<b>Total</b>	=	<b>100 Marks</b>

Marks of Viva voce (20 Marks) conducted during practical examination will be added along with the University theory written examination

# Environmental Studies

## Unit 1: Introduction to environmental studies

- Multidisciplinary nature of environmental studies; components of environment – atmosphere, hydrosphere, lithosphere and biosphere.
- Scope and importance; Concept of sustainability and sustainable development.

(2 Lectures)

## Unit 2: Ecosystems

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chain, food web and ecological succession. Case studies of the following ecosystems:

- a) Forest ecosystem
- b) Grassland ecosystem
- c) Desert ecosystem
- d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(6 Lectures)

## Unit 3: Natural Resources: Renewable and Non-renewable Resources

- Land Resources and land use change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).
- Heating of earth and circulation of air; air mass formation and precipitation.
- Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

(8 Lectures)

## Unit 4: Biodiversity and Conservation

- Levels of biological diversity :genetic, species and ecosystem diversity; Biogeography zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 Lectures)

## Unit 5: Environmental Pollution

- Environmental pollution : types, causes, effects and controls; Air, water, soil, chemical and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste..
- Pollution case studies.

(8 Lectures)

## Unit 6: Environmental Policies & Practices

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture.
- Environment Laws : Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act; International agreements; Montreal and Kyoto protocols and conservation on Biological Diversity (CBD). The Chemical Weapons Convention (CWC).
- Nature reserves, tribal population and rights, and human, wildlife conflicts in Indian context  
(7 Lectures)

## Unit 7: Human Communities and the Environment

- Human population and growth: Impacts on environment, human health and welfares.
- Carbon foot-print.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management: floods, earthquakes, cyclones and landslides.
- Environmental movements: Chipko, Silent valley, Bishnios of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).  
(6 Lectures)

## Unit 8: Field work

- Visit to an area to document environmental assets; river/forest/flora/fauna, etc.
- Visit to a local polluted site – Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems-pond, river, Delhi Ridge, etc.  
(Equal to 5 Lectures)

## Environmental Studies (Paper IV)

### Section A

Answer all the questions                      10×2marks =20 marks

### Section B

Answer any five questions out of seven    5×5 marks =25 marks

### Section C

Answer any three questions out of four   3×10 marks =30 marks

Theory paper (total)                            = 75 marks

Internals    = 25 marks

**Total**    = **100 marks**

## Suggested Readings:

1. Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R.1993. This Fissured Land: An Ecological History of India. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge.
4. Gleick, P.H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J. Gary K. Meffe and Carl Ronald carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. Science, 339: 36-37.
7. McCully, P.1996. Rivers no more: the environmental effects of dams(pp. 29-64). Zed Books.
8. McNeil, John R. 2000. Something New Under the Sun: An Environmental History of the Twentieth Century.
9. Odum, E.P., Odum, h.T. & Andrews, J.1971. Fundamentals of Ecology. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. Environmental and Pollution Science. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. Waste Water Treatement. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. Environment. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M.L. 2001. Environmental law and policy in India. Tripathi 1992.
14. Sengupta, R. 2003. Ecology and economics: An approach to sustainable development. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. Conservation Biology: Voices from the Tropics. John Wiley & Sons.
17. Thapar, V. 1998. Land of the Tiger: A Natural History of the Indian Subcontinent.
18. Warren, C.E. 1971. Biology and Water Pollution Control. WB Saunders.
19. Wilson, E.O. 2006. The Creation: An appeal to save life on earth. New York: Norton.
20. World Commission on environment and Development. 1987. Our Common Future. Oxford University Press.
21. [www.nacwc.nic.in](http://www.nacwc.nic.in)
22. [www.opcw.org](http://www.opcw.org)  
[www.nacwc.nic.in](http://www.nacwc.nic.in)

# Pre-Clinical Prosthodontics I - B.D.S.

## I Year work Quota

Teaching pre-clinical prosthetics commences from the 1st year B.D.S.

### Practicals : Exercises :

1. Dental plaster - construction of 4 cubes
2. One upper and one lower edentulous impression using impression compound
3. Beading & Boxing of upper and lower primary impression
4. Cast fabrication
5. Marking anatomical land marks on the edentulous casts
6. Special trays (Using shellac plate or acrylic resin materials)  
Construction of record bases (Using shellac base plate or acrylic)
8. Fabrication of occlusal rims
9. Mounting of U/L casts with occlusal rims in class I relation using fixed condylar path articulators  
(Mean value articulators)
10. Arrangement of teeth (Class I)
11. Waxing, Carving & Polishing of wax setup
12. Flasking, Dewaxing, Packing & Curing
13. Deflasking, Trimming & Polishing of Acrylic dentures

### Recommended Books :-

1. Text book of Prosthodontics - V. Rangarajan.
2. The Art of learning Preclinical Prosthodontics 2nd edition - K. Kasim Mohamed

# Dental Materials I - B.D.S.

Teaching Dental Materials commences from the 1st year B.D.S.

## Theory

1. Performance standards for Dental Materials
2. Structure of Matter and Principles of Adhesion
3. Physical Properties of Dental Materials
4. Mechanical Properties of Dental Materials
5. Biocompatibility of Dental Materials
6. Gypsum Products - Chemistry of Setting, Basic principles & technical considerations
7. Chemistry of Synthetic Resins

## Practicals :

Manipulation & Mixing of the following Dental Materials :

1. Impression Material -
  - a. Impression compound - heating & conditioning
  - b. Irreversible hydrocolloids
2. Denture base Materials
  - a. Heat cure Acrylic resin
  - b. Cold cure Acrylic resin

## Recommended Books :-

1. Philips Science of Dental Materials - Kenneth J. Anusavice
2. Restorative Dental Materials - Robert G Craig
3. Note on Dental Materials - E.C. Combe
4. Materials used in Dentistry 2nd edition - S. Mahalaxmi

# List of Instruments / Materials

S.NO.	MATERIAL NAME	QUANTITY
1.	Acrylic Trimmer Black Big Flame shape	1
2.	Acrylic Trimmer White small flame shape	1
3.	Acrylic Trimmer Pink cylindrical shape	1
4.	Bowl Big	1
5.	Bowl Small	1
6.	Cement Spatula	1
7.	Chip Blower	1
8.	Clamp for flask	2
9.	Dappen Glass	1
10.	Disc Mandril	1
11.	Enamel Tray	1
12.	Enamel Chisel	1
13.	File Ordinary Round ,Half Round, Triangular ,Flat, Straight ,(set of 5)	1
14.	Flask regular No 7 & No 8	2
15.	Glass Slab	1
16.	Hot Plate	1
17.	Mortar & Pestle	1
18.	Plaster Knife	1
19.	Plaster Spatula Curved	1
20.	Plaster Spatula Straight	1
21.	Sand Paper Mandril	1
22.	Scissors Straight & Curved	2
23.	Three Point Articulator Powder Coated	1
24.	Vulcanite Trimmer	1
25.	Wax Carver	1
26.	Wax Knife	1
27.	Bunsen Burner with tube	1
28.	Eosin & Haematoxylin Pencil	1



S.NO.	MATERIAL NAME	QUANTITY
29.	Plastic spatula	1
30.	Straight fissure steel bur	1
31.	Sand paper 80,100,120,300, 1000	5
32.	Steel ruler small	1
33.	B.P. Blade No 15	10
34.	B.P Handle No 3	1
35.	Blow torch	1
36.	Wax spoon	1
37.	Colored Wax Block box	1
38.	Polishing Buff	1
39.	Impression Trays full set U/L,Edentulus set of 8	1
40.	College Bag	1
41.	Green Cloth	2
42.	Vaseline	1
43.	Stone Plaster 3 kgs	1
44.	Base Plate	1
45.	Wax Sheet	2
46.	Impression Compound	1
47.	Self Cure Lab Pack	1
48.	Heat Cure Lab Pack	1
49.	Galss Plate	1
50.	Ceramic cup with lid	1
51.	Teeth Set Bio Rock	1
52.	Sprit Lamp	1
53.	Sprit 500 ml Bottle	1
54.	Rubber Sheet 35" X 26"	1
55.	Pumice 500 gms	1
56.	Protective Eye Glass	1
57.	Enamel Bowl	1

<b>TIME TABLE : I BDS</b>					
<b>VENUE : VMKV MEDICAL COLLEGE, SALEM.</b>					
<b>DAYS</b>	9.00 am to 10.00 am	10.00 am to 11.00 am	11.00 am to 12.45 pm	12.45 pm to 1.30 pm	1.30 pm to 2.30 pm 2.30 pm to 4.00 pm
<b>MONDAY</b>	Physiology (Theory)	Biochemistry (Theory)	Environmental Science	Lunch	Anatomy (Theory)
<b>TUESDAY</b>	Biochemistry (Theory)	Anatomy (Theory)	Physiology/ Biochemistry (Tutorials)		Physiology (Theory)
<b>WEDNESDAY</b>	Anatomy (Theory)	Physiology (Theory)	Physiology / Biochemistry (Practical)		Biochemistry (Theory)


<b>VENUE : VINAYAKA MISSON'S SANKARACHARIYAR DENTAL COLLEGE, SALEM</b>					
<b>DAYS</b>	8.30 am to 9.30 am	9.30 am to 10.30 am	10.30 am to 10.45 am	10.45 am to 11.45 pm	11.45 pm to 12.45 pm 12.15 pm to 1.30 pm
<b>THURSDAY</b>	Dental Anatomy (Theory)	Dental Materials (Theory)	Tea Break	Dental Anatomy (A-Batch)/ Dental Materials (B-Batch) Practicals	Preclinical Prosthodontics Practicals
<b>FRIDAY</b>	Dental Anatomy - (Practicals)			Dental Anatomy (Theory)	Dental Anatomy (Practicals)
<b>SATURDAY</b>	8.30 am to 11.00 am	11.00 am to 11.15 am	11.30 am to 1.30 pm		1.30 pm to 3.30 pm
	Dental Anatomy (A-Batch)/ Preclinical Prosthodontics (B-Batch) Practicals	Tea Break	Dental Anatomy (B-Batch)/ Preclinical Prosthodontics (A-Batch) Practicals	Lunch	Mentoring / Library Time

Library Hour: Every Tuesday & Friday Timings : 3.30 PM - 4.30 PM

# Final University Exam - Answer Booklet



**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM.**  
(Deemed to be University)

Register No.  **1** 

Name of the Candidate \* :  **2**


College \* :  **3** Degree (Branch) \* :  **4**

Title of the Paper \* :  **5** Course Code \* :  **6**

Date & Session \* :  **7** Q.P. Sl. No. \* :  **8**

**9**  **10**  
Signature of the Candidate Facsimile Signature of the Invigilator  
Do not write the register number in any other part of the answer book


Title of the Paper \* :  **11** Course Code \* :  **12**

Q.P. Sl. No. \* :  **13** 

Q. No.	1	2	3	4	5	6	7	8	9	10	Total
Marks											
Q. No.	11	12	13	14	15	16	17	18	19	20	
Marks											
Q. No.	21	22	23	24	25	26	27	28	29	30	
Marks											
Q. No.	31	32	33	34	35	36	37	38	39	40	
Marks											
Q. No.	41	42	43	44	45	46	47	48	49	50	
Marks											
Grand Total (in words)											Grand Total (in number)

Name & Signature of the Examiner Name & Signature of the Chief Examiner Checked by

Title of the Paper \* :  **14** Course Code \* :  **15**

Q.P. Sl. No. \* :  **16** 

Q. No.	1	2	3	4	5	6	7	8	9	10	Total
Marks											
Q. No.	11	12	13	14	15	16	17	18	19	20	
Marks											
Q. No.	21	22	23	24	25	26	27	28	29	30	
Marks											
Q. No.	31	32	33	34	35	36	37	38	39	40	
Marks											
Q. No.	41	42	43	44	45	46	47	48	49	50	
Marks											
Grand Total (in words)											Grand Total (in number)

## Checklist

- 1, 2, 3, 4, 7 - Refer Hall ticket
- 5, 6, 8, 11, 12, 13, 14, 15, 16 - Refer Question paper
- 9 - Signed by candidate
- 10 - Signed by invigilator

## Final University Exam

### Instruction To The Candidates

#### Before answering :

Fill in the particulars such as Register number, College, Degree and Branch of study, Course, Course code, Q.P.Sl. No, Date and Title of examination paper and Sign in the space provided.

**DO NOT** write your name or any other identifying mark on any part of the Answer Book.

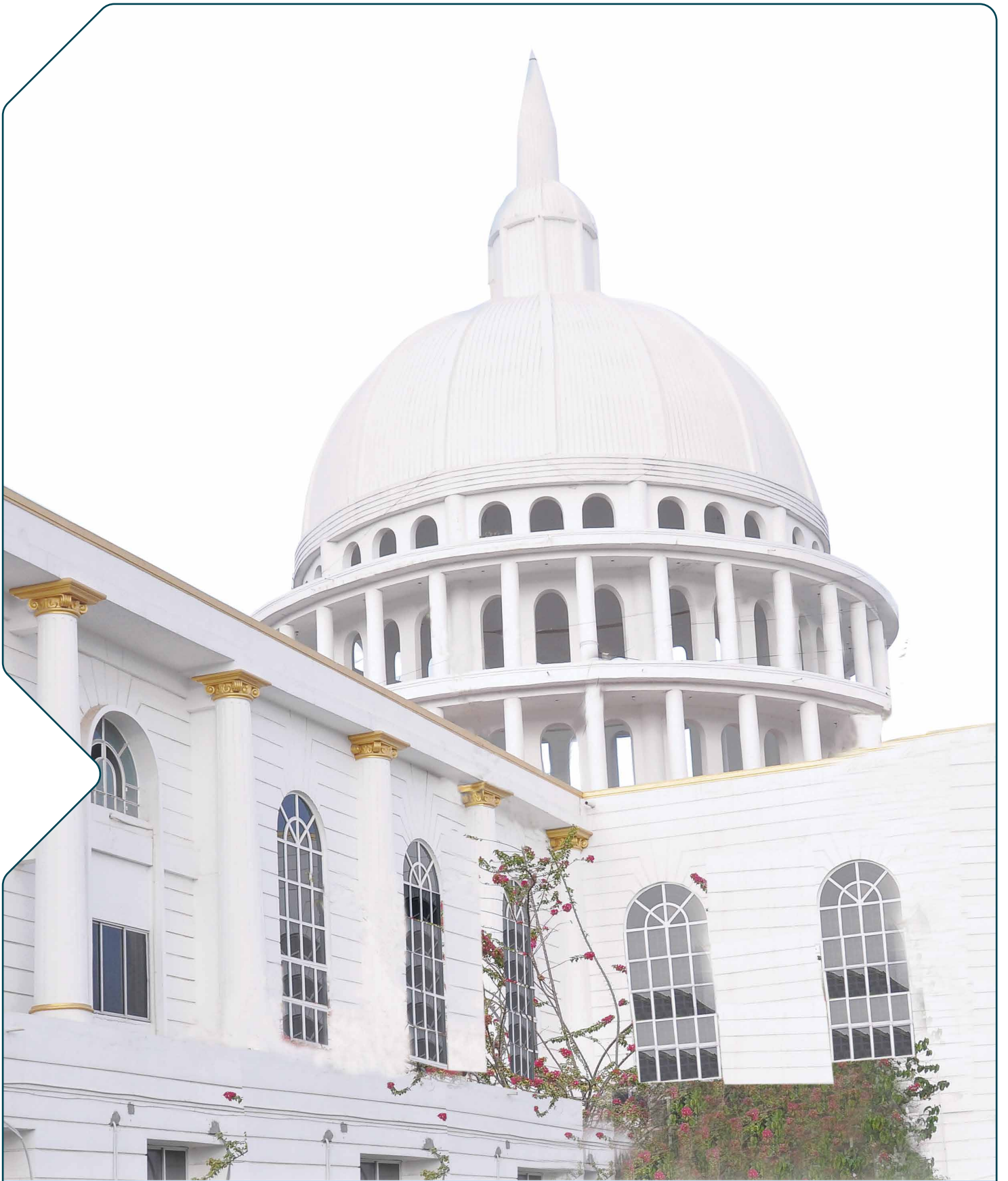
**DO NOT** write in the margin.

No loose sheets of paper will be allowed in the Examination Room and no paper must be detached from the Answer Book.

Additional answer booklet utilised applying the same instructions as the main sheet. The answer must be legibly written in Blue or Black Ink / Ball Point Pen.

Draw with labelled illustrations wherever necessary.

Before submitting the answer sheets the candidate should strike the unused pages if any.



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