



## BACHELOR OF DENTAL SURGERY I BDS GUIDE BOOK 2022 - 2023



Any clarifications / corrections book staff in-charge -	ons in Guidebook kindly contact I BDS Guide  Dr. P. Rajathi, MDS,
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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





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### **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

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.



## Mrs. ANNAPOORANI SHANMUGASUNDARAM & Dr. A. SHANMUGASUNDARAM

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**

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

Dept. No.	Name	Academic Profile	Mobile No.
1	Dr.P.T.Ravikumar	Professor & HOD Oral Medicine & Radiology	9952372749
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.D.Vinola	Professor & HOD Pediatric & Preventive Dentistry	9943300333
7	Dr.Yadav Chakravarthy	Professor & HOD Conservative Dentistry & Endodontics	8072404507
8	Dr.N.Saravanan	Professor & HOD Public Health Dentistry	9442262950
9	Dr.Prabhakar Krishnan	Professor & HOD Orthodontics & Dentofacial Orthopedics	9843688271

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



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### 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

I 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 hu-mility 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 an 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.





### **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.





### 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.

### **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, Leggins & 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 Institutional Code of conduct Monitoring committee 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. Mobile 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):

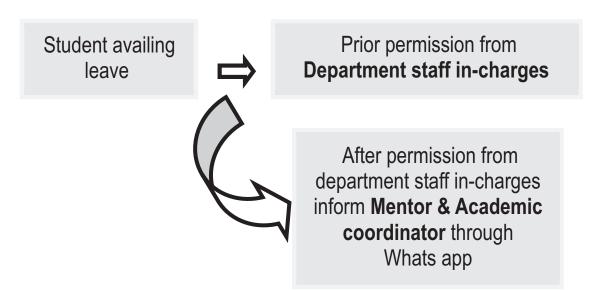
Any student found indulging in ragging or submitting to it, is strictly forbidden inside or outside the college campus. Ragging in any form is a punishable offence and shall warrant severe disciplinary action, by the concerned committee. Any incidence of ragging, should be immediately brought to notice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

### 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 Whats App 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 Whats App.
- ➤ 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:

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. The box will only be accessed by the Dean.

Dean Mail ID: 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.

### **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 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.

### 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.

### **Useful Links:**

E-Journals: https://dvldental.com/ E-Books: https://dental-library.com

NDLI: https://ndl.iitkgp.ac.in/

### **SPORTS & CULTURALS:**

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.

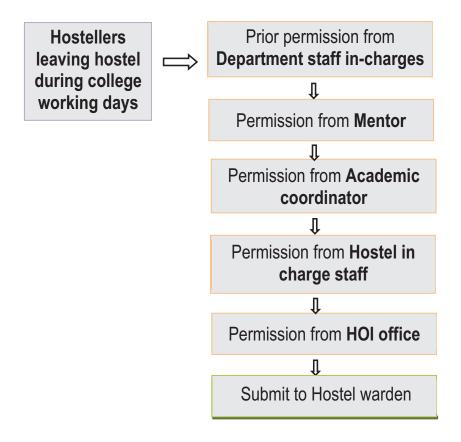
### HOSTEL

A furnished and dedicated hostel separately for boys and girls is available for first year medical and dental students. Gym facility available in Girls hostel. A separate hostel is available for those students who wish to continue the hostel facility from their second year till internship. Details pertaining to hostel and associated facilities parents can approach the hostel warden.

### Rules & Regulations:

- **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.



### **EXAMINATION SCHEME**

The VMRF DU Examinations shall be held at the end of every Academic year fulfilling the statuatory council norms. Results can be viewed at: 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-examintions 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**

- 1. Hall tickets for exams will be issued only upon producing the No Objection Certificate [NOC] from both academic & administration section.
- 2. 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.
- 3. Candidates should bring the identification card and hall ticket during university examination.
- 4. 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.
- 5. 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.
- 6. Students should wear clothes with half sleeves as long sleeves are not permitted. Hair should be tied properly.
- 7. Electronic pens & watches are not allowed.
- 8. All bags and books must be kept in a quarantine area.
- 9. 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.
- 10. Only blue/black ball point pen and graphite pencils are allowed.
- 11. No pencil pouches permitted into examination halls for theory.
- 12. No colouring or highlighting or using correction ink/ liquid paper in the answer scripts.
- 13. Histopathological/microscopic picture to be drawn using Hematoxylin & Eosin (H & E) pencils only.
- 14. No writing on the question paper.
- 15. 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.
- 16. Candidates found copying or communicating with one another will be handed over to the Chief Superintendant for further action to be taken.
- 17. Candidates are not allowed to continue writing or add anything to the answer booklet after the invigilator has announced the end of the examination.

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	20 (10%)
	Practical internal –10 marks	
3. Summative assessment	Theory:	90 (45%)
a) Professional	$\square$ MCQ'S -20 marks	
examination	$\square$ SAQ'S -30 marks	
	$\Box LAQ$ 'S -20 marks	
	Viva voce - 20 marks	
	Clinical /Practical	90 (45%)
Tota	al 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)			
	Practical internal -10 marks distribution			
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.)			
	<ul> <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>			

### 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:

- a. 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:
- b. 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;
- c. 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;
- d. any act by a senior student that prevents, disrupts or disturbs the regular academic activity of any other student or a fresher;
- e. exploiting the services of a fresher or any other student for completing the academic tasks assigned to an individual or a group of students.
- f. any act of financial extortion or forceful expenditure burden put on a fresher or any other student by students;
- g. 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;
- h. 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;
- i. 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.
- j. 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.



### 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

### 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
- 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.



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



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



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### **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. Jawahar Raman. L	Member	Periodontology	8608320665
Dr. C. Suresh	Member	Oral & Maxillofacial Surgery	9487630871
Mrs. S. Sheela Devi	Pare	nt member	9566706393
Mrs. C. Akilandeswari	Parent Member		9244822003
Mr. Nivas	Student Member		9698695546
Ms. Mayuri	Student Member		6374088708
Mr. N. Vijayasarathi	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
Mr. Xavier	Media Member		9952430038
Mr. V. Ravindran	V	lember	9498100946
Prof. P. Selvam	NGO Representative		9362847666
Mr. T. Prem Amirtharaj	Leg	al advisor	9443288688



### **ANTI RAGGING SQUAD**

Name	Designation	Department	Mobile No.
Dr. D. Vinola	Member	Paediatric & Preventive Dentistry	9943300333
Dr. D. V. Bhuvanesh kumar	Member	Prosthodontics and Crown & Bridge	9944422297
Dr. Mohamed Adhil	Member	Periodontology	7010374054
Dr. M. Assmee	Member	Conservative Dentistry and Endodontics	9789146075
Dr . M. Subhashini	Member	Conservative Dentistry and Endodontics	9994392006
Dr. Prasanta Majumder	Member	Public Health Dentistry	8431270501
Dr. A. Pavithran	Member	Oral & Maxillofacial Surgery	8667720806
Mr. R. Natarajan	١	Member	9843044140
Mr. E. Prabhu	Member		9677410412
Mr. S. Rajendran	Member		8883078595
Mr. R. Chandran	Member		9360676466
Mr. Ravi	ľ	Member	9500597046

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

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



## 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.
- · 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 a betting 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	n Department	Mobile No.
Dr. J.Baby John	Chairperson	Professor & Dean	9842753645
Dr. Yadav Chakravarthy	Convener – Boys	Conservative Dentistry & Endodontics	8072404507
Dr. D.Vinola	Convener – Girls	Pediatric & Preventive Dentistry	9943300333
ANTI RA	GGING COMM	ITTEE (Details in Pg.	No. 16,17)
Dr. S. Sunantha	Coordinator & Record Keeper	Prosthodontics and Crown & Bridge	9994066144
GR	RIEVANCE RED	RESSAL CELL	
Dr. D. Vinola	Coordinator & Record Keeper	Paediatric & Preventive Dentistry	9943300333
Dr. R. Saranyan	Member	Periodontology	9942093071
Dr. J. Arunkumar	Member	Oral & Maxillofacial Surgery	9443273347
Dr. G. Sowndarya	Member	Paediatric & Preventive Dentistry	9994506721
Miss. Mahmudha Rila. M	Student Member		9361473112
INTERNAL CO	OMPLAINTS CI	ELL (Sexual Harassn	nent)
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	Exte	ernal Member	9443288688
Miss. M. Jothimani	Stu	dent Member	6379316806
Miss. Akshaya. N	Stu	dent Member	8754778580
Mr. Arjun. P	Stu	dent Member	9790128369



### **CLASS MONITORING & FEEDBACK CELL**

Name	Designation	Department	Mobile No.
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Dr. T. Mercy Vinolia	Member	Paediatric & Preventive Dentistry	9003625744
Dr. A. Aarthee	Member	Oral & Maxillofacial Surgery	7598171088
Dr. Madhushriee	Member	Periodontology	9740575508

### **MENTOR COMMITTEE**

Name	Designation	Department	Mobile No.
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Dr. Vanitha D Revankar	PG Mentor	Conservative Dentistry & Endodontics	8122092727
Dr. Sabitha Gokul Raj	CRRI Mentor	Oral Medicine & Radiology	9150299824
Dr. B. Mano Vijay	Final Year Mentor	Periodontology	9952716937
Dr. K. Priya	Third Year Mentor	Periodontology	9994359290
Dr. S. Sunantha	Second Year Mentor	Prosthodontics and Crown & Bridge	9994066144
Dr. Diana Prem	First Year Mentor	Oral Pathology and Oral Microbiology	9443708899



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Dr. A Kumar	Representative	Oral Medicine & Radiology	9787144666
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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	Stude	ent UG Member	9597438668
Dr. Nandhinidevi. G	Stude	ent PG Member	8072231886
Mrs. Kokila		Librarian	9944718094



### **INSTITUTIONAL RESEARCH COMMITTEE**

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Dr. Reena Rachel John	Convener	Associate Dean - Research	9443118756
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Dr. P. T. Ravikumar	Member	Oral Medicine and Radiology	9952372749
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. D. Vinola	Member	Paediatric & Preventive Dentistry	9943300333
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 AND RED RIBBON COMMITTEE

Name	Designation	Department	Mobile No.
Dr. C. Bharath	Coordinator (NSS)	Public Health Dentistry	8946035788
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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



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Name	Designation	Department	Mobile No.
Dr. J. Baby John	Chairperson	Professor & Dean	9842753645
Dr. B. Sekar	Convener	Oral Pathology and Oral Microbiology	9976840554
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. Archana. R. Sankar	College Magazine  – Faculty Advisor	Periodontology	8903651524
Dr. Kasarla Himaja	Member	Public Health Dentistry	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 I	Education Teacher	8883078595

### **VMSDC MEDIA COMMITTEE**

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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. D. Vinola	News Letter – Editor	Paediatric & Preventive Dentistry	9943300333
Dr. J. Shantha Ruban	News Letter – Associate Editor	Conservative Dentistry and Endodontics	9952163866



### **COLLEGE ALUMNI CELL**

Name	Designation	Department	Mobile No.
Dr . K .Priya	Secretary	Periodontology	9994359290
Dr. Maya Ramesh	Vice President	Oral Pathology and Oral Microbiology	9600918804
Dr. Sabitha Gokul Raj	Treasurer	Oral medicine and radiology	9150299824
Dr. Diana Prem	Member	Oral Pathology and Oral Microbiology	9443708899
Dr. A. Narendran	Member	Oral & Maxillofacial Surgery	9940748600
Dr. Saramma Mathew Fenn	Member	Oral medicine and radiology	8754569193
Dr. S. Arun	Member	Conservative Dentistry and Endodontics	8098856702
Dr. V. Vignesh	Member	Prosthodontics and Crown & Bridge	9566632828
Dr. A. Anitha	Member	Periodontology	6379448862
Dr. R. Pradeep Daniel Gainneos	Member	Paediatric & Preventive Dentistry	9952723311

### TRAINING AND PLACEMENT CELL

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Dr. S. Arun	Cell Coordinator & Record Keeper	Oral & Maxillofacial Surgery	8072590530
Dr. R. Sasikala	Member	Prosthodontics and Crown & Bridge	9894810388
Dr. Mohamed Adhil	Member	Periodontology	7010374054
Dr. Marciano John Vialli Paul	Member	Prosthodontics and Crown & Bridge	8883670136
Dr. Madhushriee	Member	Periodontology	9740575508



### TENTATIVE ACADEMIC CALENDAR

DATE	DAY	EVENT
		Dec-22
08.12.2022	Thursday	I Year BDS Commencement
09.12.2022	Friday	DEEKSHARAMBH - Student Induction Program
10.12.2022	Saturday	Second Saturday Holiday
16.12.2022	Friday	White Coat Ceremony
24.12.2022	Saturday	Fourth Saturday - Holiday
31.12.2022	Saturday	Restricted - Holiday
	-	Jan-23
04.01.2023	Wednesday	Model exam - Gen Human Anatomy (2021-22 Batch)
05.01.2023	Thursday	Model exam - General physiology and Biochemistry (2021-22 Batch)
06.01.2023	Friday	Model exam - Dental Anatomy (2021-22 Batch)
07.01.2023	Saturday	Model exam - Environmental Studies (2021-22 Batch)
14.01.2023	Saturday	Second Saturday - Pongal Holiday
16.01.2023	Monday	Pongal Holiday
17.01.2023	Tuesday	Pongal Holiday
26.01.2023	Thursday	Republic Day - Holiday
		Feb-23
01.02.2023	Wednesday	University Exam - Gen Human Anatomy
		(2021-22 Batch)
03.02.2023	Friday	University Exam - General physiology and
		Biochemistry (2021-22 Batch)
06.02.2023	Monday	University Exam - Dental Anatomy (2021-22 Batch)
08.02.2023	Wednesday	University Exam - Environmental Studies (2021-22 Batch)
11.02.2023	Saturday	Second Saturday Holiday
25.02.2023	Saturday	Fourth Saturday Holiday
		Mar-23
03.03.2023	Friday	Problem Based Learning - Session I
11.03.2023	Saturday	Second Saturday Holiday
18.03.2023	Saturday	Problem Based Learning - Session II
25.03.2023	Saturday	Fourth Saturday Holiday
		Apr-23
07.04.2023	Friday	Good Friday - Holiday
08.04.2023	Saturday	Second Saturday Holiday
13.04.2023	Thursday	I Internal exam - Gen Human Anatomy
14.04.2023	Friday	Tamil Newyear - Holiday
20.04.2023	Thursday	I Internal exam - General physiology and
		Biochemistry



DATE	DAY	EVENIT
DATE	DAY	EVENT
21.04.2023	Friday	I Internal exam - Dental Anatomy
22.04.2023	Saturday	Ramzan - Holiday
		May-23
01.05.2023	Monday	May Day - Holiday
13.05.2023	Saturday	Second Saturday Holiday
26.05.2023	Friday	Student Clinical Meeting 1st & 2nd Year
27.05.2023	Saturday	Fourth Saturday Holiday
		Jun-23
02.06.2023	Friday	Parents Teachers Meeting
10.06.2023	Saturday	Second Saturday Holiday
24.06.2023	Saturday	Fourth Saturday Holiday
		Jul-23
08.07.2023	Saturday	Second Saturday Holiday
22.07.2023	Saturday	Fourth Saturday Holiday
28.07.2023	Friday	II Internal exam - Environmental Studies
29.07.2023	Saturday	Moharam - Holiday
		Aug-23
03.08.2023	Thursday	II Internal exam - Gen Human Anatomy
04.08.2023	Friday	II Internal exam - General physiology and
		Biochemistry
05.08.2023	Saturday	II Internal exam - Dental Anatomy
12.08.2023	Saturday	Second Saturday Holiday
15.08.2023	Tuesday	Independance Day - Holiday
26.08.2023	Saturday	Fourth Saturday Holiday
		Sep-23
09.09.2023	Saturday	Second Saturday Holiday
22.09.2023	Friday	Model exam - Gen Human Anatomy
23.09.2023	Saturday	Fourth Saturday Holiday
28.09.2023	Thursday	Model exam - General physiology and Biochemistry
29.09.2023	Friday	Model exam - Dental Anatomy
30.09.2023	Saturday	Model exam - Environmental Studies
		Oct-23
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 DESAMI - HOLIDAY
28.10.2023	Saturday	Fourth Saturday Holiday
Nov	ember 2023 -	University Exam Begins (2022-2023 Batch)

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

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



## TENTATIVE EXAMINATION SCHEDULE (2022 – 2023 MAIN BATCH)

SUBJECT	I INTERNAL EXAMINATION	I INTERNALII INTERNALMODELEXAMINATIONEXAMINATION	MODEL EXAMINATION	UNIVERSITY THEORY EXAMINATION
General Human Anatomy including Embryology and Histology	13.04.2023	03.08.2023	22.09.2023	Theory exam commences
General Human Physiology and Biochemistry, Nutrition and Diettics	20.04.2023	04.08.2023	28.09.2023	tentatively on November
Dental Anatomy, Embryology and Oral Histology	21.04.2023	05.08.2023	29.09.2023	2023 followed by University practical examinations
Environmental studies	1	28.07.2023	30.09.2023	

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

# TENTATIVE EXAMINATION SCHEDULE (2022-2023 ADDITIONAL BATCH)

SUBJECT	MODEL EXAMINATION	UNIVERSITY THEORY EXAMINATION
General Human Anatomy including Embryology and Histology	3.07.2023	Theory exam commences tentatively on
General Human Physiology and Biochemistry, Nutrition and Diettics	4.07.2023	2 <sup>nd</sup> week of August 2023 followed by
Dental Anatomy, Embryology and Oral Histology	5.07.2023	University practical examinations
Environmental studies	6.07.2023	

### **BDS CURRICULUM**

BDS Curriculum is available in VMSDC 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 Diettics
- 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

### **COMPULSORY ROTATING PAID INTERNSHIP (CRI)**

A pass in all the eight subjects is mandatory for completion of the 4<sup>th</sup> 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. The degree-BDS shall be granted after completion of internship.



# I YEAR SUBJECTS

0 N	OUD IFOT	M	ARKS
S.No.	SUBJECT	THEORY	PRACTICAL
1	GENERAL ANATOMY INCLUDING EMBRYOLOGY AND HISTOLOGY	100	100
2	GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY, NUTRITION & DIETTICS	100	100
3	DENTAL ANATOMY, EMBRYOLOGY AND ORAL HISTOLOGY	100	100
4	ENVIRONMENTAL STUDIES	100	No practical
5	DENTAL MATERIALS*		
6	PRE CLINICAL PROSTHODONTICS AND CROWN	AND BRID	GE*

<sup>\*</sup> 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 voce 20	Internal assessment 10
Internal assessment 10	Total - 100
Total - 100	

# \* Except Environmental studies

Theory - 100 Mark	
University written exam 75	No Practical
Internal assessment 25	140 i ractical
Total - 100	



# GENERAL ANATOMY INCLUDING EMBRYOLOGY AND HISTOLOGY

I B.D.S. (Paper - I)

#### **INTRODUCTION TO ANATOMY:**

Anatomical terms - Introduction to Osteology - Introduction to joints & Muscles - types - action - terms used - Nervous system - central and peripheral Nervous system - Typical spinal nerve - Autonomic nervous 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 Cranium & vertebrae Development of the Temporo - mandibular joint - Development of Teeth - Development of the Salivary glands Development of Pituitary gland - Development of the Respiratory tract - Development of Blood vessels of the head & neck.

#### **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) Foetal skull
- (v) Individual skull bones mandible, sphenoid, parietal, frontal, maxilla, ethmoid, vomer, nasal, zygomatic, temporal, lacrimal, occipital, inferior nasal concha 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 - (Including brachial plexus and third part of subclavian artery) - 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, 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.

# 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

# Spinal cord

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

# **Blood supply**

Main ascending and descending tracts and their functions

# Joints of the neck

## 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.

# **Upper limb:**

Names of the bones & joints - Main artery, important muscles, nerves & veins

#### Thorax

Inlet - outlet - Subdivisions

# Lungs & pleura

#### Heart

Pericardium & its blood vessels -

# Diaphragm

#### Abdomen

Subdivisions - Location of the abdominal organs in relation to abdominal wall - Their 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 - Intestines - small & large - Duodenum, ileum, jejunum - Caecum, appendix, colon - Liver, gall bladder - Pancreas

# Reproductive system

Testis, epididymis, ductus deferens-Ovary, fallopian tube, uterus - Placenta, mammary gland, umbilical cord

### Eye

Cornea, retina

#### Ear

Cochlea



# Skin

Thin skin, thick skin

# **Respiratory system**

Trachea, lungs

# **Urinary system**

Kidney - Ureter - Urinary bladder

# **Nervous system**

Spinal cord - different levels - Cerebrum - Cerebellum - Medulla - 3 levels - Pons - 2 levels - Midbrain - 2 levels - Sensory nerve endings - Motor nerve endings - Endocrines - Pituitary - Thyroid Parathyroid - Supra - renal gland

### **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)

# **SECTION - A: 35 Marks**

- Gross anatomy of head
- General anatomy
- General histology
- General embryology
- Genetics

# **SECTION - B: 35 Marks**

- Gross anatomy of neck
- Systemic histology
- Systemic embryology
- Gross anatomy of neuroanatomy

#### **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		1VE-05	2X1=02	07/02
4	General embryology		1X5=05	1X1=01	06/01
5	Genetics			1X1=01	01
	Total	10	15	10	35

#### **SECTION - B**

S. No.	Topics	Essay (1X15=15 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		170-00	2X1=02	07/02
4	Gross Anatomy of neuroanatomy		1X5=05	2X1=02	07
	Total	10	15	10	35

# **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

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



# GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY I - B.D.S. (Paper - II)

# Section A: GENERAL HUMAN PHYSIOLOGY

# **Introduction to Physiology**

- Functional organization of human body.
- Body fluids and distribution, homeostasis.
- Structure of cell and organelles.
- Cell membrane, transport across the cell membrane.
- Membrane potentials, action potentials.

### **Blood**

- Blood Volume, composition of blood and plasma.
- Red blood cells morphology, count and variation.
- Erthropoiesis, life span and fate of RBC.
- Anemia.
- Blood groups, ABO and RH systems, transfusion.
- White Blood Corpuscles Total count and variations, types and functions.
- Immunity.
- Lymphatic system: formation, circulation, and functions of spleen.
- Blood Platelets- Count variations and functions.

# **Coagulation of Blood**

- Extrinsic and intrinsic pathway of coagulation.
- Bleeding and clotting disorders.
- Coagulation factors.
- Anti coagulants.

# **Excretory System**

- Structure of the nephron
- Volume and composition of urine
- Formation of urine
- Glomerular filtration, tubular secretion and reabsorption.
- Renal function tests
- Role of kidney in homeostasis
- Micturition
- Artificial kidney
- Dialysis

# **Endocrine System**

- General chemistry of hormones
- Parathyroid gland



- Thyroid gland
- Endocrine function of pancreas insulin and glucagons
- Adrenal glands
- Hypothalamus, pineal gland, Kidney, thymus, local hormones:
   Prostaglandins, Kinins.

# Reproduction

- Male reproductive system Androgens Spermatogenesis
- Female reproductive system Ovarian and Menstrual cycles
- Pregnancy and Lactation
- Family planning Contraception.

# Muscle and the nervous system

- Skeletal muscle structure and properties
- Muscle contraction and relaxation.
- Smooth muscle: types, structure properties
- Structure and function of the nervous tissue
- Neuron, development of action potentials
- Degeneration and regeneration of nerve fiber
- Neuromuscular transmission
- Excitation, contraction, coupling.

# Digestion

- Structure of the digestive tract
- Salivary glands : Saliva, composition and functions
- Regulation of salivary secretion
- Digestion in the mouth
- Stomach
- Exocrine function of pancreas
- Liver: bile, composition secretion and functions
- Digestion and absorption in small intestine
- Movements of alimentary canal : deglutition, defecation.

# Cardiovascular System

- Functional anatomy and properties of cardiac muscle.
- Origin and conduction of cardiac impulse.
- Pacemaker tissues of heart.
- Cardiac cycle and ECG
- Heart rate and its regulation
- Cardiac output, distribution, normal values, factors affecting Cardiac output
- Hypertension.
- Blood pressure Definition, normal value, Regulation, measurement
- Radial pulse.
- Physiology of shock.



# **Special Circulation**

Pulmonary - Cerebral - Coronary - Splanchnic - Renal

# Respiration

- Structure of the respiratory organs
- Mechanics of respiration
- Diffusion of gases in lungs and tissues
- Transport of oxygen in blood
- Transport of carbon dioxide in blood
- Regulation of respiration
- Physiological modification of respiration
- Role of respiration in Acid base balance
- Hypoxia and altitude physiology.
- Artificial respiration.

# Autonomic Nervous system - Central Nervous system

- Types of neurons
- Synapses
- Spinal cord
- Reflexes
- Sensory system including receptors, modalities and tracts.
- Thalamus.
- Motor system including descending tracts
- Cerebrospinal fluid
- Pain, pathway and reffered pain.
- Basal ganglia.
- Cerebellum.
- Muscle tone
- Regulation of posture : vestibulo cochlear system
- Effects of lesions in spinal cord.
- Hypothalamus.
- Limbic system.
- EEG and sleep.
- Learning and memory.
- Higher functions of CNS : language and speech.

### Special senses

Vision - Auditory - Olfaction - Taste

# **Recommended Textbooks**

Textbook of Medical Physiology - D. Venkatesh 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 maintenarce.

# 9. Metabolism of Lipids:

Digestion & absorption - transport - lipoproteins - chylomicrons - VLDL, LDL, HDL. Metabolism of fattyacid - Beta oxidation of fattyacid. 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 - Thioesters - 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 aminoacids. Protein utilization for energy (glucogenic and ketogenic aminoacids). Inborn error of Metabolism of aminoacids and special function of aminoacids - 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. Xenobioties and Antioxidants

# 17. Acid Base and Electrolyte Balance

# 18. Clinical Biochemistry

Regulation of Blood glucose. Diabetes mellitus & related disorders. Evolution 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 marks	1 from system not covered in Essay 1x5=5 marks	From systems except one covered in essay 3x1=3 marks	18 marks
2	Respiratory system/ Renal system/ Gastrointestinal system	-	1x5=5 marks	System from which SAQ is not asked 2x1=2 marks	7 marks
3	Blood/ Nerve physiology	_	1x5=5 marks	2x1=2 marks	7 marks
4	General physiology/ Reproductive system/ Special senses	-	-	3x1=3 marks	3 marks
	Total	10 marks	15 marks	10 marks	35 marks

# **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 Marks	1x5=5 Marks (From topic not covered in essay)	2 Marks	17 marks
2	Lipids Enzymes Hemoglobin Nucleic acid chemistry & metabolism Acid base balance Function tests Minerals	_	2x5 = 10 Marks	3 Marks	13 Maks
3	Cancer, Tumour markers & AIDS	_	_	1 Mark	1 Mark
4	Cell & Body fluids	_	-	1 Mark	1 Mark
5	Energy & Nutrition	_	-	1 Mark	1 Mark
6	Free radicals & Detoxification	_	_	1 Mark	1 Mark
7	METC	_	_	1 Mark	1 Mark
	Total	10 marks	15 marks	10 marks	35 marks

Marks of Viva voce (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
TOTAL	50 Marks	50 Marks

# PHYSIOLOGY PRACTICALS

Major - 20 marks
 Minor - 15 marks
 Charts and calculations - 10 marks
 Total - 45 marks

# **BIOCHEMISTRY PRACTICALS**

Quantitative - 15 marks
 Qualitative - 15 marks
 Spotters - 10 marks
 Charts - 5 marks
 Total - 45 marks

Marks of Viva voce (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 notati on systems, toothsurfaces, 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. Introduction & Classification of Malocclusion.

#### II. ORALEMBRYOLOGY

**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 Guberernacular 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**

- 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
- 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. Tencate's Oral Histology
- 2. Orban's Oral Histology & Embryology G.S. Kumar
- 3. Oral Development & Histology James & Avery
- Text book of Oral Anatomy Histology Physiology & Tooth Morphology
   K. Rajkumar, R. Ramya
- 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

Total = 35 Marks

# 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

Total = 35 Marks

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

Total = 100 Marks

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)

# 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.
- 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.
- 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
- 22. www.opcw.org



# 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



# PRE-CLINICAL PROSTHODONTICS I - B.D.S.

#### I Year work Quota

Teaching pre-clinical prosthetics commences from the 1<sup>st</sup> 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)
- 7. 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.



# **DENTAL MATERIALS**

### I - B.D.S.

Teaching Dental Materials commences from the 1<sup>st</sup> 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. Biocompatability 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



#### LIST OF INSTRUMENTS / MATERIALS **QUANTITY** S.NO. **MATERIAL NAME** Acrylic Trimmer Black Big Flame shape Acrylic Trimmer White small flame shape Acrylic Trimmer Pink cylindrical shape **Bowl Big Bowl Small** Cement Spatula Chip Blower Clamp for flask Dappen Glass Disc Mandril **Enamel Tray Enamal Chisel** File Ordinary Round ,Half Round, Triangular ,Flat, Straight ,(set of 5) Flask regular No 7 & No 8 Glass Slab Hot Plate Mortar & Pestle Plaster Knife Plaster Spatula Curved Plaster Spatula Straight Sand Paper Mandril Scissors Straight & Curved Three Point Articulator Powder Coated **Vulcanite Trimmer** Wax Carver Wax Knife Bunsen Burner with tube Eosin & Haematoxylin Pencil



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	Vasaline	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>\</b>	TIME T VENUE : VMKV MI	TIME TABLE: 1 BDS /MKV MEDICAL COLLEGE, SALEM.	SALEN		
DAYS	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
MONDAY	Physiology (Theory)	Physiology (Theory) Biochemistry (Theory)	Environmental Science	Lun	Anatomy (Theory)	Histology Practical
TUESDAY	Biochemistry (Theory)	Anatomy (Theory)	Physiology/ Biochemistry (Tutorials)	ch Brea	Physiology (Theory)	Anatomy Dissection
WEDNESDAY	Anatomy (Theory)	Physiology (Theory)	Physiology / Biochemistry (Practical)	ak	Biochemistry (Theory)	Anatomy Dissection

	VENUE: VINA	YAKA MISS	ON'S SANK	VENUE: VINAYAKA MISSON'S SANKARACHARIYAR DENTAL COLLEGE, SALEM	NTAL COLL	EGE, SA	LEM	
DAYS	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	1.30 pm to 3.30 pm
THURSDAY	Dental Anatomy ( Theory)	Dental Materials (Theory)	Tea E	Dental Anatomy (A-Batch)/ Dental Anatomy (B-Batch) Dental Materials (B-Batch) Dental Materials (A-Batch) Practicals	Dental Anatomy (B Dental Materials ( <i>F</i> Practicals	(B-Batch)/ (A-Batch) ils	Lunch	Preclinical Prostho Practicals
FRIDAY	Dental Anatomy - (Practicals)	y - (Practicals)	Break	Dental Anatomy (Theory)	Dental Anatomy ( Practicals)	itomy als)	Break	Dental Anatomy Practicals
	8.30 am to 11.00 am		11.00 am to 11.15 am	am 11.30 am to 1.30 pm		) pm to 2.00	pm 1.3	1.30 pm to 2.00 pm 1.30 pm to 3.30 pm
SATURDAY	Dental Anatomy (A-Batch))/ Preclinical Prostho (B-Batch) Practicals	Batch))/ (B-Batch))	Tea Break	Dental Anatomy (B-Batch))/ Preclinical Prostho (A-Batch)) Practicals	-Batch))/ A-Batch))	Lunch		Mentoring / Library Time

Library hour: Every Tuesday and Friday TIMINGS: 3.30 pm - 4.30 pm



#### FINAL UNIVERSITY EXAM - ANSWER BOOKLET VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM. (Deemed to be University) Side 2 Degree (Branch) College Title of the Pap Course Code \* 8 Q.P. SI. No. 9 10 Signature of the Invigilator Do not write the register number in other part of the answer book 11 Title of the Paper Q.P. Sl. No. 13 10 Marks Q. No. 20 Marks Q. No. Marks Q. No. 21 30 31 40 Grand Total (in words) Name & Signature of the Examiner Name & Signature of the Chief Examiner Checked by 15 16 8 Marks Q. No. 11 18 19 20 13 Marks Q. No. Marks Q. No. 21 25 27 30 31 40 33 35

#### 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

Grand Total (in number)

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.

