

PROFORMA

DETAILS OF ENTRANCE TEST – 2016

Name of the Faculty:- Faculty of Dentistry

Department/Centre:- Faculty of Dentistry

Name of the Program:- BDS Course

About Program's Prospects: ...Dentistry is an important branch of the health care system. It is a highly respected profession all over the world and is a sought after career in India. Over 12000 students take admission in undergraduate programme of dentistry every year. Majority of these young graduates choose to practice general dentistry, whilst others go in for further specialization in any of the 9 dental specialities. In addition to this the young dentists can opt for a job in government or private hospitals, the armed forces or join a dental college for teaching. Job opportunities are also present in the field of research and in government establishments like Defense Services, Railways and industrial sector.

The Faculty of Dentistry has highly qualified 74 Faculty Members who make every effort to train the students in a manner that will enable the students to survive in the highly competitive field of dentistry. They impart not only latest in knowledge but also enable them to excel in clinical skills by providing ample clinical material and inculcating in them a sense of ethics, professionalism and empathy. Emphasis is also given to overall development of their personality by encouraging them to participate and compete with their peers in various professional forums & extra-curricular activities.

Summary of Entrance Test

S.No.	Test-Component (Strike off, if not applicable)	Test Duration (in minutes)	Max. Marks	Passing Marks	Negative Marking (Yes/No)
2.	Part-A (Objective/Multiple Choice Questions/Practical)	180	200	100	No
3.	Part-B/Subjective/Descriptive/Theory	No	No	No	No
4.	Interview	No	No	No	No
5.	Group Discussion	No	No	No	No
6.	Portfolio	No	No	No	No

Important Instructions for Test (Pl. add/modify as required)

Permissible Material/equipment for Entrance Test (as required):

- Black/Blue Ball Pen,
- Pencil

DETAILED SYLLABUS FOR BACHELOR OF DENTAL SURGERY (BDS) ENTRANCE TEST

Chemistry

Basic concepts of Chemistry, Structure of Atom, Classification of elements and periodicity in properties, Chemical bonding and molecular structure, States of Matter, Gases and Liquids, Thermodynamics, Equilibrium, Redox Reaction, Solid State Solution Electrochemistry, Chemical Kinetics, Surface Chemistry, Hydrogen, General principles and process of isolation of elements, Studies of s & p-block elements, Studies of d & f-block elements, Coordination Compounds, Organic Chemistry, Some basic principles & techniques, Hydrocarbons, Environmental Chemistry, Haloalkanes and Haloarenes, Alcohols, Phenols and Ethers, Aldehydes, Ketones and Carboxylic acids, Organic compounds containing nitrogen, Biomolecules, Polymers, Chemistry in everyday life.

Physics

Physical World and Measurement, Kinematics, Laws of Motion, Work, Energy and Power, Motion of System of Particles and Rigid Body, Gravitation, Properties of Bulk Matter, Thermodynamics, Behavior of Perfect Gas and Kinetics. Theory of Gases, Oscillations and Waves, Electrostatics, Current, Electricity, Magnetic effect of Current and Magnetism, Electromagnetic Induction and Alternating Current, Electromagnetic Waves, Optics, Dual Nature of Matter and Radiation Atoms and Nuclei, Electronic Devices, Communication Systems.

Biology

- A. **Zoology:** Diversity in living organism, Classification of living organisms, Systematics and binomial system of nomenclature. Zoological parks and museums, Tissues in animals, Morphology, Anatomy and functions of different systems of an Annelid (earthworm), an insect (cockroach) and an amphibian (frog). Biomolecules of cell, Enzymes, Digestion and absorption, Breathing and Respiration, Body fluids and circulation. Excretory products and elimination, Locomotion and movement, control and coordination. Human Reproduction – Reproductive health, birth control, contraception and sexually transmitted disease, Human genetics - Sex determination in human beings, Lineage and crossing over, Inheritance pattern of hemophilia and blood groups in human beings. Genome and Human Genome Project, DNA fingerprinting, Evolution (Theories Evidences), Zoology in human welfare, Animal husbandry, Concepts of immunology, vaccines, Pathogens, Parasites, Cancer and AIDS, Adolescence and drug alcohol abuse, Applications of Biotechnology, Recombinant DNA technology and its application in health, Species, Population, Community, Animal ecological adaptation, Wildlife Conservation.
- B. **Botany:** Biological Classification (5 Kingdom System/ Classification); Classification of Angiosperms upto Subclass Level, Botanical Gardens and Herbaria Kingdom: Monera (Archaeobacteria & Eubacteria), Kingdom: Fungi Phycomycetes, Ascomycetes, Basidiomycetes. Deuteromycetes kingdom:

Plantae Algae, Bryophyta, Pteridophyta, Gymnosperms And Angiosperms; Viruses, Viroids & Lichens, Structural Organization in Plants Morphology of Flowering Plants Root, Stem, Leaf and their Modifications, Inflorescences, Flowers, Fruit and Seed; Description of Following plant Families: (A) Fabaceae (B) Solanaceae (C) Liliaceae.

Anatomy of Flowering Plants: Tissues: Meristematic and Permanent, Simple and Complex Tissue System, Anatomy of Root, Stem & Leaf (Monocot & Dicot), Secondary Growth in Stem & Root; Cell Structure and Function: Cell Wall, Cell Membrane and Cell Organelles, Plastids, Mitochondria, Endoplasmic Reticulum, Golgi Bodies, Ribosomes, Lysosomes Vacuoles, Centrioles, Nuclear Organization and Microbodies; Cell Division : Cell Cycle, Mitosis and Meiosis, Plant Physiology: Transport in Plants, Mineral, Nutrition, Photo Synthesis in Higher Plants, Respiration in Plants, Plants Growth and Development, Plant Reproduction: Reproduction in Organisms, Reproduction in Flowering plants, Pollination and fertilization, Double fertilization, Development of seed and fruit, Apomixes and polyembryony, Development of seeds and fruits. Mendelian Inheritance, Chromosomal Basis of Inheritance, Deviations from Mendelian ratio (Gene interaction). Incomplete dominance, Complimentary genes, Multiple alleles and co-dominance, Molecular Basis of Inheritance, DNA structure, Replication, Transcription, Translation, Regulations of Gene Expression, Plant Breeding, Plant Tissue Culture, Food Production, Microbes in household, Food processing, Industrial production, sewage treatment and energy generation; Biotechnology and its Applications, Recombinant DNA technology-Applications in agriculture and industry, Genetically modified (GM) organisms – Insulin and Bt. Cotton, Bio-safety issues; Ecology and Environment, Ecosystem : Components, Types and energy flow, Ecological adaptations in plants, Environmental issues.