



Shri Balaji Shikshan Prasarak Mandal's

B. PHARMACY COLLEGE

Modi learning Centre, Ring Road, Ambajogai, Beed.



COURSE: INSTRUMENTAL METHODS OF ANALYSIS-THEORY (BP701T)

CO No.	CO Statement	Bloom's Level
BP701T.1	Get well acquainted with the properties of electromagnetic radiation, electromagnetic spectra, interaction of electromagnetic radiation with matter and describe theoretical aspect, instrumentation, applications of uv-visible spectrophotometry, fluorimetry.	Remember, Understand, Apply
BP701T.2	Study fundamental modes of vibrations in poly atomic molecules, sample handling, factors affecting vibrations, instrumentation and applications of infra red spectroscopy along with theory, instrumentation, applications of flame photometry and nepheloturbidimetry	Remember, Understand, Apply
BP701T.3	Differentiate between adsorption and partition chromatography, compare thin layer chromatography with paper chromatography in different aspects like methodology used, advantages disadvantages and applications, in addition describe theory of electrophoresis	Understand, Apply, Analyze, Create
BP701T.4	Compare theoretical background of gas chromatography with HPLC and discuss instrumentation, application of both.	Apply, Analyze, Evaluate, Create
BP701T.5	Describe ion exchange chromatography, gel chromatography, affinity chromatography with respect to theory, instrumentation, applications.	Remember, Understand, Apply

COURSE: INDUSTRIAL PHARMACY- II (BP702T)

CO No.	CO Statement	Bloom's Level
BP702T.1	To study the general considerations in pilot plant scale up techniques for solids, liquid orals, semi solids along with relevant documentation. Understand SUPAC guidelines and concept of platform technology.	Remember, Understand
BP702T.2	Explain WHO guidelines and related concepts of technology development and transfer along with all protocols, documentation and agencies available for technology transfer in India.	Remember, Understand
BP702T.3	Explain the role of regulatory affairs department and professionals along with regulatory requirements for drug approval. Understand the entire non clinical drug development concept, clinical research protocols, data presentation, bio statistics and	Remember, Understand
BP702T.4	To study in detail the quality management systems like total quality management, quality by design (QBD), six sigma concept, out of specifications (OOS), and concept of some iso series	Remember, Understand, Apply, Evaluate, Create
BP702T.5	To study the Indian regulatory requirements of central drug standard control organization (CDSCO), state licensing authority and certificate of pharmaceutical product (COPP) along with regulatory requirements and approval procedures for new drugs.	Remember, Understand, Analyze



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COURSE: PHARMACY PRACTICE (BP703T)



CO No.	CO Statement	Bloom's Level
BP703T.1	Describe the functioning of hospital pharmacy. Identify and assess adverse drug reactions.	Remember, Understand, Apply
BP703T.2	Recognize various drug distribution system in the hospital. Develop the contents of hospital formulary, TDM, medication adherence and community pharmacy management.	Remember, Understand, Apply, Analyze, Evaluate, Create
BP703T.3	Practice education and training program in the hospital and patient counselling	Understand, Apply, Analyze
BP703T.4	Describe the functioning and responsibilities of PTC, DIS and clinical pharmacy.	Understand, Apply, Analyze, Evaluate, Create
BP703T.5	Explain drug store management and inventory control ,interpret clinical laboratory tests of specific disease states	Understand, Apply, Analyze, Evaluate, Create

COURSE: NOVEL DRUG DELIVERY SYSTEM (BP704T)

CO No.	CO Statement	Bloom's Level
BP704T.1	To study advantages, disadvantages, approaches to design controlled release formulations based on diffusion, dissolution and ion exchange principles. Properties of drugs relevant to controlled release formulations. Detail study of polymer.	Remember, Understand, Apply
BP704T.2	To study definition, advantages, disadvantages, concept of microspheres, microparticles, buccal, implantable DDS. Applications and methods of microencapsulation, principles of bioadhesion.	Remember, Understand, Apply
BP704T.3	To study the permeation through skin, factors affecting permeation, permeation enhancers, basic components and formulation approaches of TDDS and GRDDS. Formulation of inhalers nasal sprays, nebulizers.	Remember, Understand, Create
BP704T.4	Explain the concepts targeted drug delivery, liposomes, niosomes, nanoparticles, monoclonal antibodies and their applications.	Remember, Understand
BP704T.5	To study, intra ocular barriers and methods to overcome –preliminary study, ocular formulations and ocuserts, intra uterine devices (IUDS) and applications.	Remember, Understand, Apply



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COURSE: INSTRUMENTAL METHODS OF ANALYSIS (BP705P)

CO No.	CO Statement	Bloom's Level
BP705P.1	Analyze and estimate raw materials, finish products using absorption/ emission spectroscopy, nephelo-turbidimetry.	Analyze, Create
BP705P.2	Analyze amino acids, sugar samples, plant pigments by paper/ thin layer/ column chromatography and study GC, HPLC by demonstration.	Understand, Analyze, Create
BP705P.3	Prepare report, document the result, and answer oral question.	Understand, Analyze, Create

COURSE: PRACTICE SCHOOL (BP706PS)

CO No.	CO Statement	Bloom's Level
BP706PS.1	Collect the information on the marketing concepts and techniques and their applications in the pharmaceutical industry and survey the present pharmaceuticals market.	Apply, Analyze, Evaluate
BP706PS.2	Review the regulatory approval process and their registration in Indian and overseas markets. Regulatory authorities and agencies.	Apply, Analyze, Evaluate
BP706PS.3	Summarize basic terminologies, present global scenario and various methods used to generate safety data in pharmacovigilance.	Apply, Analyze, Evaluate
BP706PS.4	Report CGMP, GAP and GLP in traditional system of medicines including guidelines for evaluation and standardization of herbs and herbal drugs.	Apply, Analyze, Evaluate
BP706PS.5	Review, compile and report the recent advances in the field of quality control and standardization of herbals, pharmacovigilance, pharmaceutical regulatory science, pharma marketing management and explore the problems in the present systems.	Apply, Analyze, Evaluate