

DEPARTMENT OF PRINTING AND PACKAGING TECHNOLOGY

BE : VII SEM (CBGS)

Subject: Sustainable Packaging (PPC701)

- CO1. Describe the need & scope of sustainability in a process, product/package or equipment.
- CO2. Describe & analyze the metrics & LCA for packaging sustainability.
- CO3. State explain the various waste management systems.
- CO4. Describe the need of biopolymers & biobased polymers in sustainable economy.
- CO5. Identify various materials preferred to be sustainable.
- CO6. Describe the need of Bio-Polymers and bio-based polymers in sustainable economy

Subject: Packaging Laws and Regulations(PPC702)

- CO1. Summarize the rules and regulations with respect to packaging in India and their impact in the domestic market.
- CO2. Identify and compare the international laws with relation to packaging.
- CO3. Examine the labels and identify the regulation involve in it.
- CO4. Discuss the regulatory act requirement for verity of different segment commodities.
- CO5. Identify and rectify process involove in regulatory act.
- CO6. Discuss the various indian reguatory act required for food/pharma labels.

Subject: Packaging Distribution Logistics (PPC703)

- CO1. Analyse the usage Unit Load Devices for their & application ofwrt Product-Package nature.
- CO2. Discuss the Palletisation, containerisation & their varients.
- CO3. Discuss & compare the Supply chain Management and Logistcs element.
- CO4. Describe the Logistics elements like Inventry, Transportation modes, Warehousing & Material Handling.
- CO5. To explain and perform transport worthiness tests for a given package.
- CO6. Describe the role of retailing in packaging industry.

Subject: Total Quality Management and Economics(PPC704)

- CO1. List and explain various TQM Tools
- CO2. Describe & compare various theories on Total Quality
- CO3.3. Implement quality tools for continuous improvement
- CO4. Analyze the concept of House of Quality
- CO5. Identify the scope of Six Sigma, ISO and Quality systems in industrial scenario
- CO6. Estimate the cost for various packaging & printing materials, processes and equipments

Subject: Project Management and Entrepreneurship (PPC705)

CO1. Identify the problem and select the project.

CO2. Plan the project using different tools.

CO3. Define Budget and estimate the cost of project.

CO4. Identify the risks involved and assess uncertainty and risk management.

CO5. Explain the components of the product business and pre feasibility studies for the entrepreneurship development.

CO6. Apply the entrepreneurship skills for product launching and incubation.

Subject: Advanced Food Packaging (Elective II) (PPE701)

CO1. Choose a packaging material with suitable permeability value as required.

CO2. Describe & perform the migration analysis for packaging materials.

CO3. Evaluate the shelf life of packaged food product.

CO4. Describe the filling system & suggest a suitable one on the basis of product need.

CO5. Apply concepts of microbial inactivation for retort & aseptic packaging

CO6. Develop an active and intelligent package for perishable food

Subject: Advanced Industrial Products Packaging (Elective II) (PPE702)

CO1. Effectively choose packaging materials based on characteristics of industrial products.

CO2. Describe the various properties & defects of wood packaging material

CO3. Analyze the various hazards & environmental issues related to Packaging and select a specific protection method for the product.

CO4. Choose various bulk carriers for industrial packaging based on the type of product.

CO5. Design various internal fitments and wooden packages based on a given industrial product requirement.

CO6. Optimize the utilization of packages and selection of materials to effectively save cost.

Subject: Labelling Technology (Elective II) (PPE703)

- CO1. Define and identify different types of labels and their apt applications.
- CO2. Explain and Compare the different types of labels, their features and manufacturing process.
- CO3. Explain the process of printing, finishing and applying labels on the packs.
- CO4. Select a type of label and material based on the package type.
- CO5. Design the labels of all types along with the compensations.
- CO6. Describe the new trends in the labelling industry.

Subject: Seminar (PPS701)

- CO1. To examine package forms, materials, print, graphics, labels, etc. and develop in them a “why” curiosity
- CO2. To delve in a specific area of Packaging & Printing and learn the science & technology behind that process/product in detail.
- CO3. To design questionnaires, collect data, perform analysis and prepare a report.
- CO4. To write a review paper based on available white papers or research papers.
- CO5. To present the data collected, analysed and concluded in cogent manner.
- CO6. To apply/ experiment the theoretical inputs in practical arena.

BE : VIII SEM (CBGS)

Subject: Professional Internship (PPI801)

CO1.Exhibit the corporate culture/ethics in their work space/career.

CO2.Accomplish allotted tasks within deadlines

CO3.Learn problem solving techniques and also work as a team.

CO4.Apply the knowledge learnt in their career.

CO5.Analise and identify his or her area of interest, will establish association with the same.

CO6.Make systematic documentation or report writing of workdone.

Subject: Project (PPP801)

CO1. To get acquainted with the process of undertaking literature survey

CO2. To get acquainted with identifying a problem

CO3. To get familiarized the process of problem solving in a group

CO4. To get acquainted with the process of applying basic engineering fundamental in the domain of practical applications

CO5. To inculcate the process of research

CO6. To Correlate the theoretical and experimental results and draw the proper inference