



भारतीय पैकेजिंग संस्थान
Indian Institute of Packaging

An autonomous body under the Ministry of Commerce & Industry, Govt. of India

Prospectus & Syllabus

**DIPLOMA IN PACKAGING
(THROUGH CORRESPONDENCE)**

2021

Accredited by :



The Asian Packaging Federation



BACKGROUND:

There is more to packaging than meets the eye. Packaging is recognized as major industry in all the developing countries. This is not surprising as all the products manufactured or processed are packed in some way or the other. With trade barriers vanishing in many countries, export has increased, demanding more and more from packaging. Packaging is becoming a highly competitive field. It embraces various disciplines of science and technology. With the increasing importance for packaging and its growth, there would be growing opportunities for packaging professionals in their career.

It is a challenging task to acquire additional knowledge for the persons who are employed or engaged in business activities. The Distance Education Programme offers the best opportunity to such people to update their knowledge position, experience and accept higher responsibilities, on completing the course.

COURSE CURRICULLUM:

Packaging is multi-faceted activity. It protects preserves and sells the product at optimum cost. Protection, preservation and marketing involve understanding of environmental concerns, related laws, its economics and management besides knowledge of Packaging Technology.

The Course covers study of basic packaging materials like Paper, Paperboard, Glass and Metal containers, Plastic, Films, Laminated, Cushioning Materials, Ancillary Materials and other conventional and modern forms of packaging used in Food, Pharma, Engineering and other Industries. It also covers packaging techniques and processes, quality control and evaluation test and other management topics like standardization, packaging cost and economics etc.

The Correspondence Course is designed to develop packaging persons who can find opportunities in marketing, purchase, design and development, quality assurance and package processing of any industrial unit – be it a package manufacturer or a package user.

METHODOLOGY:

Candidates registered for the Course would be given course material for reading in advance.

EXAMINATION:

Examination will be conducted at the end of 18 months. A student also has to submit an essay on a prescribed topic before the examination. The examination would be conducted at Indian Institute of Packaging Mumbai or at its other offices at Kolkata, Delhi, Chennai, Hyderabad and Ahmadabad. The candidates are expected to attend the examination at his/her own cost. (For overseas candidate examination can be arranged at their place/country with prior intimation.)

The examination will consist of four paper of 100 marks each and dissertation in the form of essay of 100 marks. Papers I to IV will be set to cover topics from Packaging Technology Education Volumes – set 1 to 4 respectively given to the registered candidates.

A candidate can appear for examination on payment of re-examination fee within 3 years, for maximum three times, after registration. The minimum marks for passing the Diploma examination would be 40 percent in each head of passing and 50 percent in aggregate.

: SYLLABUS :

1) DPC – 101:

INTRODUCTION TO PRINCIPLE OF PACKAGING & MATERIAL (Examination paper 1 from volume I)

Packaging – A Total Concept, Packaging & Productivity, Package Components. Export packaging, Transit Hazards – Road, Rail, Sea & Air – Test Procedures for Evaluation of Transport – worthiness

(i) Physical (ii) Environmental, Protection Against Handling, Transport and Storage Hazards – Road, Rail, Sea, Air, Product Characteristics – Physical / Physico – Chemical, Biological, Physical Characteristics of the Product – Physical State, Weight, Center of Gravity, Fragility, Rigidity & Surface Finish, Packaging Components, Separation, Clearance support, Positioning, Cushioning, Weight Distribution, Suspension and Closure. Test Procedures for Packaging Materials & Packaged Products Compatibility of the Package Manufacture & Properties of Packaging Paper and Board, Mineral Coating on Paper, Speciality Papers for Packaging, Folding Board cartons & Coated Carton - Manufacture, Types & Applications, corrugated Board, Box Styles and its Economics, Solid Fibreboard as a Transport Pack, Composite Container and its Applications. Multiwall Paper Sacks, Cellulosic Films.

Plastics, Thermoforming in Packaging, Co-extrusion, Extrusion - Stretch Blow Moulding. Low Density Polyethylene, Linear Low-Density Polyethylene. High Density Polyethylene. High Molecular High-Density Polyethylene, Polypropylene - Properties and Applications in Packaging, Biaxially Oriented Polypropylene Films, Polystyrene - Properties, Processing and Applications, PVC in Packaging, Nylon - 6 Films, Polyester Film, Identification of Plastics, Expanded Polystyrene, Expanded Polyethylene, Plastic Woven Sacks, Polycarbonate (PC)

2) DPC - 102:

RIGID PACKAGING MATERIAL & ADHESIVE (Examination paper II from Volume II)

Packaging in Glass Containers, Glass Containers Properties, Testing Methods. Manufacture of Black Plate, Tin Plate Characteristics and Properties, Tinsplate Containers, Two Piece Metal Cans, Internal Food Can Lacquers, G.I. Drums – Oil Drums – Closures Manufacture and Usages, Aluminum Foil – Manufacture, Properties and Applications in Packaging, Aluminum Collapsible Tubes and Containers, Aerosol, Aerosol Packaging Technology, Seals Closures, and Pilfer proof Caps

Wooden Containers, Seasoning of Timber for Packaging cases, Crates Adhesives for Packaging Industries, Laminates, Laminated Tubes - Manufacture, Properties, Applications, Flexible Packaging – Laminates and Coatings – Applications, Role PVDC Coating in Packaging, Labels, & Labelling.

3) DPC – 103:

PACKAGING MACHINERY & PRINTING (Examination paper III from Volume III)

Printing, Printing Techniques, Gravure, Flexography, Inkjet Printing for coding, Marking Applications, Surface Design and Sales Appeal, Graphic and Surface design, Printing Inks, Bar Coding, Reinforcements on Distribution Packages, Corrosion Prevention in Packaging, Principles of Corrosion and its impact on Packaging.

Adhesive Tapes, their Manufacture, Properties & Laminations, BOPP Pressure Sensitive Tapes Cushion Design, Prevention of Shock Damage to Articles by various means and Measurement of Shock, Cushioning Materials and their Applications, Plastic Corrugated Board. Statistical Quality Control, Statistical Quality Control and its Role in Quality Assurance,

Quality Control – Specifications and Performance Requirements of Fiber board Boxes, Packaging Quality Control, Testing Methods for Evaluation of Transport Packages

Containerization, Containerization and Multimodal Transport System. Containerization Concept, Intermodal Containers - its Impact on Packaging. Packaging of Access and Spares - Skin. Blister and Shrink Packaging, Stretch Wrapping Systems. Strip Packaging, Blister Packaging. Form – Fill – Seal machine (systems), Developments in Packaging of Stand-up Pouches. Blow Molding machines, High Flow PEs - a New Trend in injection Molded Containers.

4) DPC - 104: PRODUCT PACKAGING

(EXAMINATION PAPER IV FROM VOLUME IV)

Packaging of Processed Food Products, dehydrated. Ready to use Foods, Packaging of Meat, Fish & Poultry, Packaging of Fresh Foods, Packaging of Dairy Products, Packaging of Biscuits, Bread & Confectionery, Packaging of fruit Juices, Aseptic Packaging – Sterilization of Packaging Materials, Using Aseptic System, Aseptic Packaging, Sterilization by Irradiation, Radiation. Sterilization - Process Norms, Guidelines & Applications, Packaging of Horticultural Crops. Packaging of Pharmaceutical Products – injectables, Packaging of Pharmaceutical products - Orals. Packaging of Textiles. Packaging of Fertilizers & Chemical, Developments and Trend in the Field of Packaging of Chemicals, Packaging of Fertilizers, Packaging in Pesticides Industry

Packaging of Soaps and Detergents, Packaging of Cosmetics, Packaging of Handicrafts for Exports. Packaging Hazardous Chemicals, Packaging of Light Engineering Goods, Packaging of Heavy Engineering Goods, Vacuum Packaging, Packaging management, Package Design - An Important Marketing Tool, Systems Approach to packaging, Systems Packaging, Scientific Packaging and Loss Prevention. Packaging Needs for Export. Basic Concepts in Standardization, Packaging Standardization and Physical Distribution, Standards - Basic Concepts, Packaging Materials, Rigid & Ancillary Materials and Export Packaging. Packaging Economics, Maximizing the Container Utility in Relation to the Product, Packaging Cost, Cost Reduction in Packaging, Inventory Control, Value Analysis and Value Engineering, Packaging Laws, Consumer Protection in Food Packaging, marking and Labeling, Eco-friendly Packaging for Exports.

5) DPC - 5: PROJECT WORK

(ESSAY ON A SELECTED TOPIC)

Details will be given separately.

SERVICES OFFERED BY INDIAN INSTITUTE OF PACKAGING

- Post Graduate Education
- Executive Development Programmes
- Research
- Testing, Development
- Standardisation
- Techno Economic Feasibility Studies
- Graphic Design
- Data Base
- Library
- Certificate Course
- Unit Based Programmes
- Technical Consultancy
- Shelf Life Studies
- Testing Equipment Development
- Market Research
- Industrial Photography
- Information
- Publications

Packaging for Better Living



भारतीय पैकेजिंग संस्थान Indian Institute of Packaging

An autonomous body under the Ministry of Commerce & Industry, Govt. of India

HEAD OFFICE

E-2, MIDC Area, Post Box No. 9432, Andheri (E), Mumbai - 400 093. INDIA

Tel: 91-22-2821 9803 / 6751 / 9469, Fax: 91-22-2837 5302 / 2832 8178

Email: rneiip@iip-in.com / prof-tne@iip-in.com

Web: www.iip-in.com

BRANCHES

DELHI

CHENNAI

KOLKATA

HYDERABAD

AHMEDABAD



Plot No. 21, Functional Industrial Estate, Patparganj, Opp. Patparganj Bus Depot, Delhi - 110 092.

Tel: 011-22166703-05

Fax: 011-22169612

E-mail: iipdelhi@iip-in.com



Plot 169 Industrial Estate, Perungudi, Chennai - 600 096.

Tel: 044-2496 0730 / 24961560

Fax: 044 - 24961077

E-mail: iipchennai@iip-in.com



Block CP-10, Sector-V, Salt Lake, Bidhan Nagar, Kolkata - 700 091.

Tel: 033-23670763/23676016

Fax: 033-23679561

E-mail: iipkolkata@iip-in.com



Lux - 3, Industrial Centre, Sanath Nagar, Hyderabad - 500 018.

Tel: 040-23814321

Fax: 040-2370 7148

E-mail: iiphyd@iip-in.com



1st Floor, CFC Building, Apparel Park, GIDC, Khokhra, Ahmedabad 380021

Tel: + 91-79-22930200,

Mobile: +91-9586494842

Email: iipahmedabad@iip-in.com

Proposed Branches

● Kakinada (AP)

● Bangalore

● Guwahati