(Following Paper ID and Roll No. to be filled in your Answer Books) Paper ID : 187661 Roll No.

B.TECH.

Theory Examination (Semester-VI) 2015-16

PLASTIC PACKAGING & FOAM

Time : 3 Hours

Max. Marks : 100

Section-A

- 1. Attempt all parts. All parts carry equal marks. Write answer of each part in short. $(2 \times 10 = 20)$
 - (a) Packaging
 - (b) Area of film Packaging
 - (c) List the various materials used for the packaging
 - (d) Beverages packaging
 - (e) Selection criteria of polymeric packages for oils
 - (f) Functional requirement of house hold and industrial goods
 - (g) Significance of coefficient of friction
 - (h) Significance of permeability test

- (i) Epoxy foam
- (j) Area of foam Packaging

Section-B

2. Attempt any five questions from this section.

 $(10 \times 5 = 50)$

- (a) Discuss in detail the scope & functions of packaging.
- (b) Write down the advantages and disadvantages of polymeric packaging over conventional packaging materials.
- (c) Write in detail the selection criteria of suitable polymeric packages for food products.
- (d) Explain different polymeric materials used in foam and write down the recent advancement on foam.
- (f) Explain the selection of packaging for medicines, dairy products and bakery items.
- (g) Explain the printing on polymeric packages.
- (h) Define the effect of ingredients on the foam properties.
- (i) Write short note on physical properties of cellular plastics.

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Section-C

Note: Attempt any two questions from this section.

 $(15 \times 2 = 30)$

- 3. Explain the testing of polymeric film as per IS 2508 standard.
- 4. What are the techniques available for the evaluation of Foam morphology? Explain detailed account of Scanning electron microscope (SEM).
- 5. Differentiate between rigid and flexible foam and describe the manufacturing method of polyurethane foam.

