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**POST GRADUATE DIPLOMA IN  
FOOD SCIENCE AND TECHNOLOGY**

**Term-End Examination**

**June, 2011**

**MFT-004 : FOOD PACKAGING, SAFETY AND  
QUALITY MANAGEMENT**

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** *Attempt only 5 questions.*

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1. Differentiate the followings - *any seven.*      **2x7=14**
- (a) Nitrogen and Vacuum packaging.
  - (b) Aseptic and Retort packaging.
  - (c) Tin and TFS cans.
  - (d) Nylon 6 and Nylon 6, 6.
  - (e) Glassine and Kraft paper.
  - (f) Lug Cap and Screw Cap.
  - (g) Thermoplastics and thermosets.
  - (h) ISO 9001 : 1994 and ISO 9001 : 2008.
  - (i) TBT and SPS agreements.

2. Expand the following - *any seven*. 2x7=14
- (a) WVTR
  - (b) CFB
  - (c) MMPO
  - (d) LLDPE
  - (e) PVDC
  - (f) GLP
  - (g) GAP
  - (h) WTO
  - (i) PET
3. Write short notes on the followings : 5+5+4=14
- (a) Palletization and containerization.
  - (b) Principles of Food Hygienic.
  - (c) MAP for fruits and vegetables.
4. Write down the packaging systems used for the following foods in the market. Give your justification alongwith. 5+5+4=14
- (a) Taj mahal Tea (250 g)
  - (b) Uncle chips
  - (c) Fried Cashewnuts
5. (a) Explain different voluntary and mandatory Indian regulations/legislations. 7
- (b) What is codex alimentarius ? Explain its purpose and establishment. 7

6. (a) What is compatibility of Food Contact Materials ? Based on types of food coming in contact and filling conditions make a table for selection of food simulants and time temperature test conditions for Boil in bags, room temperature filling and storing as per BIS in migration testing. 10
- (b) A one litre PET bottle with 600 sq cm exposed surface area releases 3 mg of extractive in water simulant. Calculate the results as mg/dm<sup>2</sup> and ppm. 4
7. (a) What is the national body for ISO 17025 ? Describe the auditing criteria as per this standard for a chemical lab. 7
- (b) Write down the key sanitary and phytosanitary measures relevant for food safety and animal/plant health. 7
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