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Invigilator's Signature :	•••••

# CS/B.Tech(FT)/SEM-7/FT-703C/2011-12 2011

### UTILIZATION OF FOOD INDUSTRY REFUSE

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

### GROUP - A

### (Multiple Choice Type Questions)

1. Choose the correct alternatives for the following:

 $10 \times 1 = 10$ 

- i) FPC which is used as animal feed is
  - a) Type A FPC
  - b) Type B FPC
  - c) Type C FPC.
- ii) The pH required during incubation for the production of citric acid from apple pomace is
  - a) less than 4
  - b) equal to 8
  - c) greater than 5.

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- iii) Paddy husk contains silica about
  - a) 97%
  - b) 56%
  - c) 2%.
- iv) The substance used as a coagulant in the treatment of waste water is
  - a) Polyethylene glycol
  - b) Chitosan
  - c) Mercaptoethanol.
- v) Shagreen is found in
  - a) Pacific mackerel
  - b) Silver bar
  - c) Shark.
- vi) The binding agent in the preparation of FPC tablets is
  - a) Gelatin
  - b) Sugar
  - c) Guar gum.
- vii) The winterization process is done
  - a) to precipitate waxes
  - b) to make the product cool
  - c) to protect the product from chill of winter.

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- viii) The production of FPC from Bombay duck waste involves heat along with
  - a) Alpha Ray
  - b) Beta Ray
  - c) Gamma Ray.
- ix) Chitin is a type of
  - a) Polymer
  - b) Monomer
  - c) Tetramer.
- x) Glucosamine is marketed as
  - a) Glucosamine hydrochloride
  - b) Glucosamine master
  - c) Rich glucosa.

#### **GROUP - B**

### (Short Answer Type Questions)

Answer any *three* of the following.

 $3 \times 5 = 15$ 

2. How can you prepare "isinglass" out of Fish Industry byproduct? What are its applications in Food Industry?

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- 3. Write a brief account on the production of puffed cereal from broken rice.
- 4. Describe with the help of a flow diagram the preparation of nutritional enhancer feed from seafeed processing wastes.
- 5. How can you prepare industrial alcohol from non-usable cereal?

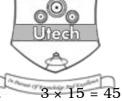
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#### **GROUP - C**

## (Long Answer Type Questions)

Answer any three of the following.



 $3 \times 5$ 

- 6. Describe the manufacturing process of the production of "fish meal".
- 7. How can you utilize apple pomace for the production of different usable products of importance? Discuss in detail.
- 8. What are the different types of fermentation products obtained from whey? How tea waste can be used for making feed for livestock and poultry?
- 9. Write short notes on any *three* of the following :
  - a) Protein from sorghum
  - b) Marine beef
  - c) Zein and kafirin
  - d) Collagen fibre and surgical suture.

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