

Name :

Roll No. :

Invigilator's Signature :

CS/B.Tech (FT)/SEM-7/FT-703C/2009-10

2009

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) The type of FPC which is completely a deodorized product is

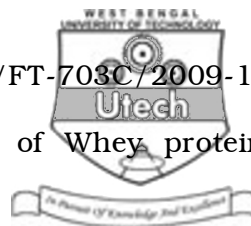
- a) Type A FPC
- b) Type B FPC
- c) Type C FPC.

ii) The temperature required for the production of Ethanol from Apple Pomace is

- a) 30°C
- b) 78°C
- c) 16°C .



- iii) The production of FPC from Bombay-duck waste by radiation-heat combination method uses
 - a) Alpha ray
 - b) Gamma ray
 - c) Infrared.
- iv) The drum dried protein product based on cooked fish waste, rice and shredded coconut is named as
 - a) Firtolay
 - b) Protienex
 - c) Fricola.
- v) Broth is prepared from
 - a) Shrimp waste
 - b) Krill waste
 - c) Hilsa fish waste.
- vi) Glucosamine is marketed as
 - a) glucosamine hydrochloride
 - b) glucosamine master
 - c) rich glucosa.
- vii) The organism that is involved in the production of 'whevit' is
 - a) *Aspergillus niger*
 - b) *Aspergillus oryzae*
 - c) *Saccharomyces cerevisiae*.



- viii) The modern method of production of Whey protein concentrate involves
- a) ultrasonication techniques
 - b) electrodialysis
 - c) high speed condenser.
- ix) The highly refined lactose having the highest standards of purity is
- a) Crude lactose
 - b) USP lactose
 - c) Edible lactose.
- x) The total ash-content of the commercial lactose is
- a) 1.5%
 - b) 7.3%
 - c) 7.8%.

GROUP – B

(Short Answer Type Questions)

Answer *all* the following.

3 × 5 = 15

2. What do you mean by 'Marine beef' ? What are its different applications in food industry ?
3. Write a brief account on the production of Dietary Fibre from Appl Pomace.

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4. Describe with the help of a flow diagram the preparation of marketable products like Chitin, Chitosan and Glucosamine from fish waste.

GROUP – C

(Long Answer Type Questions)

Answer *all* the following.

3 × 15 = 45

5. What are FTW and DCTW ? Briefly compare their properties. Write down their uses.
6. What is FPC ? What are its various types ? Discuss in brief. What are the different methods by which it can be prepared ? What are FPC tablets ?
7. Write notes on any *three* of the following :
- a) Applications of Chitin and Chitosan in Industry
 - b) Condensed and Dried products from Whey
 - c) Production of Citric acid from Apple Pomace
 - d) Texturised meat from fish.
