

**DIPLOMA IN FISH PRODUCTS TECHNOLOGY
(DFPT)**

Term-End Examination

00521

December, 2014

BPVI-043 : COATED PRODUCTS

Time : 2 hours

Maximum Marks : 50

Note : *Attempt any five questions. All questions carry equal marks.*

1. Give the reasons for any **ten** of the following in one or two sentence(s) only : *10×1=10*
- (a) Pre-dusting of fish fingers are carried out before battering.
 - (b) Cryogenic freezing is not generally used for freezing fish products.
 - (c) Properly packaged fish products in blocks are usually not frozen by belt freezers.
 - (d) Depuration is carried out before processing of oysters.
 - (e) Freezing point of water in fish is not at 0°C but at $\approx -1^\circ\text{C}$.

- (f) Belly flaps are removed from the fish fillets before coating with batter and bread crumbs.
 - (g) Guar gum is used in the batter.
 - (h) Plate freezers are generally not used for freezing IQF products.
 - (i) After battering, the products pass through batter curtains.
 - (j) After each batch of operation, the battering and breading machine is cleaned thoroughly.
 - (k) In tempura batter, sodium bicarbonate is added.
 - (l) Surimi is preferred over minced fish for making seafood analogues.
2. (a) What are chemical hazards ? Describe the various chemical hazards in fish products. 2+4=6
- (b) What are the common food additives used in coated fish products ? Give their permissible levels. 4
3. Briefly explain the functioning of any *two* of the following freezers : 2×5=10
- (a) Spiral belt freezer
 - (b) Fluidized bed freezer
 - (c) Liquid nitrogen freezer

4. What is a batter ? What are the ingredients in a typical batter for making coated fish products ? What are the factors that may affect batter formulation ? *1+4+5=10*
5. What is breading ? Explain the functional properties of breading. *2+8=10*
6. Explain the process for the preparation of coated fish fingers and give the flow chart for the process. *10*
7. How is minced fish prepared ? What are the raw materials that can be used for making fish mince ? Describe the preparation of cutlet from fish mince. *2+3+5=10*
8. Define seafood analogues. Give the ingredients for the formulation of shrimp analogue. Describe the method of preparation of shrimp analogue. *2+3+5=10*
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