

# **ASSIGNMENT BOOKLET**

## **DIPLOMA IN PRODUCTUON OF VALUE ADDED PRODUCTS FROM CEREALS, PULSES AND OILSEEDS (DPVCPO)**

**Academic Session: 2011**



**School of Agriculture  
Indira Gandhi National Open University  
Maidan Garhi, New Delhi – 110068**

Dear student,

As you are aware that for theory, the weightage to the term-end examination will be 80% and the weightage to the continuous assessment will be 20%. The continuous assessment is in form of assignments. There is one assignment for each course i.e. total eight assignments for the programme. Each assignment will be of 50 marks which ultimately will be converted to have weightage of 20 % of theory. Instructions to format your assignments are as follows:

### **Instructions to format your assignments**

Before attempting the assignments, please read the following instructions carefully.

1. On top of the first page of your answer sheet, please write the details exactly in the following format.

Enrollment no:.....

Name:.....

Address:.....

.....  
.....

Course Code:.....

Course Title:.....

Study Centre:.....

Date:.....

(Name and Code)

---

**Please follow the above format strictly to facilitate evaluation and to avoid delay.**

2. Use foolscap size paper for writing your answer.
3. Leave 4cm margin on the top, bottom and left of your answer sheet.
4. Clearly indicate question no. and part of the question being solved while writing answers.

<b>Assignment No.</b>	<b>Date of Submission</b>
Assignment 1 (BPVI-031) and 2 (BPVI-032)	Before 31 <sup>st</sup> March
Assignment 3 (BPVI-033) and 4 (BPVI-034)	Before 31 <sup>st</sup> May
Assignment 5 (BPVI-035) and 6 (BPVI-036)	Before 31 <sup>st</sup> July
Assignment 7 (BPVI-037) and 8 (BPVI-038)	Before 30 <sup>th</sup> September

5. Assignments have to be sent to the coordinator of your study centre.
6. **We strongly suggest that you should retain a copy of your assignment responses.**

Wishing you good luck.

**Assignment-01**  
**Course Code: BPVI- 031**  
**Food Fundamentals**

**Max. Marks: 50**

**Answer the following in about 500 words. All questions carry equal marks.**

- Q.1 Write down the benefits of Post Harvest Management and its scope for rural industrialization. Explain the role of temperature and moisture in post harvest management.
- Q.2 What is the role of moisture in safe storage of food grains? Write down in brief about the controlled and modified atmospheric storage and their benefits?
- Q.3 What do you understand with the term size reduction. What are its principles? What is screen effectiveness? Name the factors that affect screening efficiency.
- Q.4 What are the objectives of material handling devices? Define any three material handling equipments with the help neat sketch?
- Q.5 Write down in brief about the quality standards for processed foods. What is HACCP? Define its role for food industry.

**Assignment -02**  
**Course Code: BPVI- 032**  
**Food Microbiology**

**Max. Marks: 50**

**Answer the following in about 500 words. All questions carry equal marks.**

- Q.1 Water activity influences the growth of micro-organisms. Discuss in detail and explain the terms to describe the microgram associated with three distinct types of foods?
- Q.2 Briefly discuss the types and symptoms of botulism? How will you diagnosis it? Explain necessary conditions for its out-break.
- Q.3 Discuss the different categories of preservatives and additives?
- Q.4 Briefly discuss the factors responsible for microbial ecology of food spoilage? Explain buffers in foods.
- Q.5 (i) Enumerate sources of contamination in drinking water.  
(ii) Discuss different drinking water standards.

**Assignment -03**  
**Course Code: BPVI- 033**  
**Milling of Wheat, Maize and Coarse Grains**

**Max. Marks: 50**

**Answer the following in about 500 words. All questions carry equal marks.**

- Q.1 Name the preliminary cleaning machines. What is the advantage of using preliminary cleaning machines in flour mill? Explain working of anyone cleaning machine with the help of diagram.
- Q.2 Write down note on the following:
- (a) Belt conveyor
  - (b) Bucket elevator
  - (c) Screw conveyor
  - (d) Pneumatic conveyor
  - (e) Chain conveyor
  - (f) Oscillating tube conveyor
- Q.3 What are merits and demerits of cereal brans and how we can use them techno – economically? Explain principles of producing refined flours (debranning).
- Q.4 Describe the traditional methods of milling coarse grains with a suitable flow charts? Differentiate between wet milling and dry milling of wheat.
- Q.5 What are the factors that contribute to the quality of value added products? What is value addition to coarse grains? List the different value added products of coarse grains.

**Assignment -04**  
**Course Code: BPVI- 034**  
**Baking and Flour Confectionery**

**Max. Marks: 50**

**Answer the following in about 500 words. All questions carry equal marks.**

- Q.1 Why wheat flour requires enrichment with vitamin and minerals? Give the names of vitamins and minerals needed for flour enrichment? Explain the method of adding additives in the flour mill with the help of schematic diagram.
- Q.2 Write short notes on:
- (a) HLB values (B) Malt (c) Dough (d) Sedimentation value (e) Malt extract (f) Proofing (g) Leavening (h) Crusting.
- Q.3 Write down the direct and indirect role of surfactants in processing of bread? Differentiate between whole wheat bread, brown bread and flat bread.
- Q.4 What are the reasons for proofing of dough? Mention fibre rich ingredients which are used in high fibre bread?
- Q.5 What are the differences between (a) batter type and foam type cakes (b) High ratio and low ratio cakes (c) Fruit cake and cake with fruits? Also describe the role of the following ingredients in cake:
- (a) Egg (b) Sugar

**Assignment -05**  
**Course Code: BPVI- 035**  
**Paddy Processing**

**Max. Marks: 50**

**Answer the following in about 500 words. All questions carry equal marks.**

- Q.1 What are the factors affecting the milling quality of paddy? Do total yield changes if husk content increases? With the help of flow diagram describe the modern milling technique of rice?
- Q.2 Write down short notes on:  
(a) Water absorption ratio  
(b) Sculling ratio (volumetric)  
(c) Elongation ratio  
(d) Gelatinization temperature  
(e) Swelling ratio  
(f) Yellowness index  
(g) Transplanting  
(h) Dapog System
- Q.3 Define the following:  
(a) Equilibrium moisture content  
(b) Drying efficiency  
(c) Moisture ratio  
(d) Intermittent drying off.
- Q.4 What do you understand by controlled and modified storage system? Define the role of moisture migration during storage?
- Q.5 What are the terms lemma, palea and awn refer to? Why Rice husk is abrasive in nature? Define any one rice husker with neat diagram?

**Assignment -06**  
**Course Code: BPVI-036**  
**Processing of Pulses and Oilseeds**

**Max. Marks: 50**

**Answer the following in about 500 words. All questions carry equal marks.**

- Q.1 Why is loosening of pulses essential in pulse milling? What are the by-products of pulse milling and their use?
- Q.2 What is puffing of pulse? Why it is done? Describe method of puffing of pulses?
- Q.3 Which is the highest percentage of fatty acid composition of soybean oil? Does soybean oil contain triglycerides? If yes then what its role?
- Q.4 How a screen air cleaner cum Grader works? Explain with the help of a diagram.
- Q.5 Explain solvent extraction method? How oil from soybean seed is extracted by solvent extraction method, explain?

**Assignment -07**  
**Course Code: BPVI-037**  
**Food Quality Testing and Evaluation**

**Max. Marks: 50**

**Answer the following in about 500 words. All questions carry equal marks?**

- Q.1 (i) What are the objectives and functions of ISO? Enumerate its benefits.  
(ii) What do you understand by TQM? Define TQM.
- Q.2 (i) Define the term Hazard. Classify Hazards.  
(ii) List the benefits and principles of HACCP.
- Q.3 (i) What do you understand by food texture? Describe different characteristics of Force Deformation Curve.  
(ii) Discuss the Magness-Taylor Pressure Tester Techniques of measuring food texture.
- Q.4 (i) Differentiate between Proximate Analysis and Ultimate Analysis.  
(ii) Briefly discuss the method for estimation of crude fat?
- Q.5 (i) Define chromatography. Discuss the general principles of Chromatography?  
(ii) Classify different methods of Chromatography.

**Assignment -08**  
**Course Code: BPVI-038**  
**Entrepreneurship and Marketing**

**Max. Marks: 50**

**Answer the following questions in about 500 words. All questions carry equal marks.**

- Q.1 Explain the concept of entrepreneurial skills. Discuss important skills required to be a successful entrepreneur.
- Q.2 Explain the various sources from which business ideas can be generated.
- Q.3 (a) Define finance. Write its various sources.  
(b) Discuss the principles of purchasing material.
- Q.4 (a) Define branding. Write important considerations in selecting brand name.  
(b) What do you understand by the term promotion mix? What are its components?
- Q.5 Discuss the strategies to be followed by the businessmen for the growth of their enterprises.