

ASSIGNMENT BOOKLET

Diploma in Production of Value Added Products from Cereals, Pulses and Oilseeds (DPVCPO)

*Assignment for the Academic Year 2016

Note: First of all read the assignment/questions and instructions carefully and identify the components of an assignment. You should read the relevant sections and sub sections of a unit while preparing your responses and write answers in your own words. Your responses should not be a verbatim reproduction of the textual materials/blocks provided for self-learning purposes. We also suggest that, you may read additional materials available in your study centre or in any other library before preparing your responses. But extra reading is not a must to answer these assignments.

***Please ignore the Assignment Booklet for 2008 enclosed with the programme guide.**



School of Agriculture
Indira Gandhi National Open University
New Delhi -110068
2016

Dear student,

Welcome to the “Diploma in Production of Value Added Products from Cereals, Pulses and Oilseeds” (DPVCPO) programme. As you are aware that the weightage to the Term-End Examination (TEE) will be 80% and Continuous Assessment (Assignment) will be 20%. There is one assignment for each course with theory component, thus, a total of eight assignments for this programme. Each assignment will be of 50 marks which will be converted to have weightage of 20% of theory component. Each candidate will have to complete assignments as per the schedule in order to appear in TEE. Therefore, you are advised to take assignments seriously and submit them in time. 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:.....	
.....	
.....	
Programme Code:.....	Programme
Title:.....	
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 4 cm margin on the top, bottom and left of your answer sheet.
4. Students are advised to give the relevant points from the course material and elaborate their answers and explain in their own language instead of reproducing the language of the course materials.
4. Clearly indicate question no. and part of the question being solved while writing answers.
5. **The Assignments should be sent or submitted to the Programme In-charge (PIC) of the Study Centre allotted to you.**
6. **We strongly suggest that you should retain a copy of your assignment responses.**

Happy Learning! Wish you all good luck for successful completion of the programme.

Note: Minimum 50% marks in Continuous Assessment i.e., each assignment in each course is required for completion of a course for DPVCPO programme.

Programme Coordinator
School of Agriculture
Indira Gandhi National Open University,
Maidan Garhi, New Delhi-110068, India.

Course Code: BPVI-031
Course Title: Food Fundamentals

Last Date: 31st October 2016
Maximum Marks: 50

All questions are compulsory and carry equal marks. Write your answer in about 200 words. **5 x 10=50**

1. Describe the role of temperature and moisture in post-harvest management.
2. Define cleaning, grading and scalping. Describe the factors controlling cleaning and grading operations of grains.
3. List traditional improved and modern storage structures and write details of any two.
4. Differentiate between momentum and impulse.
5. Discuss different flow properties of liquid foods.
6. Describe different unit operations in food processing industry.
7. Differentiate between subjective and objective evaluation of food.
8. Explain the role of essential amino acid in food.
9. What is anti-nutritional factor? List different heat labile anti-nutritional factor.
10. What is adulteration? Identify some possible adulterants in cereals, pulses and oilseeds.

Course Code: BPVI-032
Course Title: Food Microbiology

Last Date: 31st October 2016
Maximum Marks: 50

All questions are compulsory and carry equal marks. Write your answer in about 200 words. **5 x 10=50**

1. Define water activity. Describe the various factors affecting water requirements of microorganism?
2. Describe the conditions favouring the outbreak of Staphylococcal food poisoning.
3. Explain how do you prevent food borne infection?
4. Discuss the factors that affect the microbial load in finished products?
5. Define food additives and explain the role of food additives.
6. What are chemical preservatives and discuss their important characteristics?
7. Describe the standards of water for human consumption.
8. Discuss spoilage of processed pulses and grains products.
9. What is thermal preservation of foods?
10. What are food borne diseases and chemical contamination of food?

Course Code: BPVI-033
Course Title: Milling of Wheat, Maize and Coarse Grains

Last date: 30th November 2016
Maximum Marks: 50

All questions are compulsory and carry equal marks. Write your answer in about 200 words. 5 x 10=50

1. Describe the parameters to be checked in destoner to achieve optimum degree of separation of stones.
2. Discuss the functions, merits and demerits of water addition system.
3. What are the differences between horizontal stone grinders and vertical stone grinders?
4. Why bran finisher is required? Describe different types of bran finishers available in flour mills?
5. What is the role of junior square sifters in the food industry?
6. Explain first cleaning of wheat with the help of flow diagram.
7. What is pneumatic pressure and pneumatic suction systems, explain?
8. Explain the traditional milling methods of coarse cereals and millets.
9. Describe CFTRI maize dry milling process with the help of neat flow diagram.
10. What is value addition? Explain the role of various agencies that help in quality assurance of value added products

Course Code: BPVI-034
Course Title: Baking and Flour Confectionery

Last date: 30th November 2016
Maximum Marks: 50

All questions are compulsory and carry equal marks. Write your answer in about 200 words. 5 x 10=50

1. Write short notes on
 - i) Moisture
 - ii) Gluten quality
 - iii) Damaged starch
 - iv) Ash
 - v) Enzymes
2. What are various physical characteristics of flour in relation to end product quality, explain?
3. Describe the role of emulsifiers and surfactants in bakery products.
4. Describe in brief the instruments used for rheological measurements.
5. Explain the process of dough development in detail.
6. Discuss the major faults in bread and their remedies.
7. Describe the various unit operations involved in manufacturing of biscuits.
8. Discuss the ingredients required for manufacturing of cake.
9. What is durum wheat and describe its physico-chemical characteristics?
10. What are the quality evaluation of pasta products?

Course Code: BPVI-035
Course Title: Paddy Processing

Last date: 31st December 2016
Maximum Marks: 50

All questions are compulsory and carry equal marks. Write your answer in about 200 words. **5 x 10=50**

1. What are the factors affecting the physical quality of the paddy and rice, explain?
2. What is soaking process? Describe the methods of soaking.
3. Describe the theory of grain drying.
4. What is a steam engine? Explain its different efficiencies?
5. Discuss the principle of operation of cylinder separator.
6. Explain the process of rice milling with the help of neat flow diagram.
7. Describe the process of manufacturing of rice flour with the help of neat flow diagram.
8. What are the use of rice bran as animal feed and as human food?
9. What is Gasification? Explain the process of gasification with the help of flow diagram.
10. What are the important parameters which affect the level of brokens in milled rice?

Course Code: BPVI-036
Course Title: Processing of Pulses and Oilseeds

Last date: 31st December 2016
Maximum Marks: 50

All questions are compulsory and carry equal marks. Write your answer in about 200 words. **5 x 10=50**

1. Discuss why pulses play an important role in human diet in India especially for vegetarian people?
2. What is by product of pulse milling and discuss about its uses?
3. List different methods of pulse milling and explain one in detail.
4. What is puffing of pulses and why it is done? Discuss methods of puffing of pulses.
5. Discuss about nutritional quality of soy protein and soy oil.
6. Discuss briefly about manufacturing of soy based bakery products.
7. Write about the importance of oilseeds in human diet.
8. Explain how the crude oils is refined?
9. Explain how a screen air cleaner cum-grader works with the help of a diagram?
10. Write short notes on the following:
 - i) Seed treatment
 - ii) Composition of pulses
 - iii) Blanching
 - iv) Fatty acid composition
 - v) Refined oil

Course Code: BPVI-037
Course Title: Food Quality Testing and Evaluation

Last date: 31st January 2017

Maximum marks: 50

All questions are compulsory and carry equal marks. Write your answer in about 200 words. **5 x 10=50**

1. Define food quality and write its attributes.
2. Discuss the role of AGMARK and BIS in regulating the quality of food products.
3. What do you understand by HACCP? Write its principles.
4. State Newton's Law and differentiates between viscosity and consistency.
5. Describe the colorimetric method for pectin estimation.
6. Define sensory evaluation of food. What are the different methods of sensory evaluation?
7. What do you understand by chromatography and how chromatography methods are classified?
8. What is spectroscopy? Write relationship between absorption and concentration.
9. What is refractometry and for which purpose it is used in food industry?
10. What are the main components of a pH meter?

Course Code: BPVI-038
Course Title: Entrepreneurship and Marketing

Last date: 31st January 2017

Maximum Marks: 50

All questions are compulsory and carry equal marks. Write your answer in about 200 words. **5 x 10=50**

1. What do mean by self-employment? Write its benefits.
2. Define entrepreneurship. What is the need for entrepreneurship?
3. How to develop a positive self-image to become an entrepreneur?
4. Discuss the sources from where a businessman can derive business ideas.
5. Explain the assessment of market for any business idea.
6. Discuss the common errors in formulation of business plan.
7. Discuss the component of marketing mix
8. What are the important considerations in procurement of material?
9. Distinguish between direct and indirect distributors.
10. What do you mean by growth? Describe the various factors which drive growth.