



**National Open University of Nigeria**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi, Abuja**  
**Faculty of Agricultural Sciences**  
**October/November, 2016**

**Programme: Agricultural Economics and Extension**

**Course Code: HCM 339**

**Course Title: Food and Beverage Production III**

**Credit Unit: 2**

**Total Score: 100 Marks**

**Time Allowed: 2 Hours**

**Instruction: Answer any four (4) Questions**

- 1
  - (a) What do you understand by the term heat transfer? **5mks**
  - (b) Name and explain briefly the three ways through which heat can be transferred **9mks**
  - (c) List three classes of cooking method. **3 mks**
  - (d) Briefly describe the effect of heat on:  
(i) Proteins      (ii) Starch      (iii) Sugar      (iv) Fat **8mks**
- 2
  - (a) Name 3 classes of cakes with two examples each. **9mks**
  - (b) Mention the three methods for making butter cake. **3mks**
  - (c) Identify the causes for the following faults in cakes. **2mks each**  
(i) Cake lacks body/structure  
(ii) Crust too dark  
(iii) Top of cake peaks and cracks  
(iv) Batter overflows the pans  
(v) Cake dries out too soon
  - (d) Mention 6 important tips for a successful baking. **3mks**
- 3
  - (a) What is broiling? **3mks**
  - (b) State the difference between grilling and broiling **2mks**
  - (c) Identify 3 different types of grilling and give one example each of foods that can be cooked with each type. **6mks**
  - (d) List and explain the 4 methods of steaming. **10mks**
  - (e) State 4 advantages of grilling food foods. **4mks**
- 4
  - (a) Mention 3 types of puddings. **3mks**
  - (b) Describe the process of steaming a pudding. **8mks**
  - (c) Identify the 2 types of fish with 3 examples of each. **8mks**
  - (d) Explain two ways of testing the quality of an egg. **6mks**
- 5
  - (a) What is shallow frying? **5mks**
  - (b) Describe the effect of shallow frying on foods. **5mks**
  - (c) Itemize the five conditions necessary for stir-frying. **5mks**
  - (d) Mention 5 varieties of cooking oil used in frying. **5mks**
  - (e)
    - (i) Write one difference and one similarity between stewing and casserole.
    - (ii) Mention three advantages of stewing. **5mks**
- 6
  - (a) What is a sandwich? **3mks**
  - (b) Explain the term Desert and name 5 types of common deserts. **7mks**
  - (c) List 5 pastry ingredients and explain their uses in pastry making. **15mks**