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| Name: |  UPES UNIVERSITY WITH A PURPOSE |
| Enrolment No: | |

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, May 2020

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| Course: Food Chemistry in Nutrition | Semester: IIIrd |
| Program: B.Sc FND | Time 03 hrs. |
| Course Code:HSCC2002 | Max. Marks: 100 |

SECTION A

- 1. Each Question will carry 5 Marks**
- 2. Instruction: Complete the statement / Select the correct answer(s)**

| S. No. | Question | CO |
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| Q 1 | What is the significance of Food chemistry? | CO1 |
| Q2 | <p>1. For food products, the water activity is generally less than</p> <ol style="list-style-type: none"> a) 1 b) 0.25 c) .65 d) .5 <p>2. What is the collective term for disease causing microorganisms?</p> <ol style="list-style-type: none"> a) Parasite b) Bacteria c) Pathogen d) Virus <p>3. Which vitamin is synthesized by bacteria in the intestine?</p> <ol style="list-style-type: none"> a) Vitamin E b) Vitamin K c) Vitamin D d) Vitamin A <p>4. Which one is not the type of browning?</p> <ol style="list-style-type: none"> a) Ascorbic acid browning b) Non- enzymatic browning c) Enzymatic browning d) Free radical browning <p>5. DOPA stands for_____</p> <ol style="list-style-type: none"> a) Dihydroxy Phenol Orthophenylalanine b) Dihydroxy Phenol Orthophosphate c) Dihydroxy phenylalanine orthopolyphenol d) Dihydroxy phenylalanine orthophenol | CO2 |
| Q3 | <p>1. How do we evaluate food?</p> <ol style="list-style-type: none"> a. using all our senses except hearing b. only through tasting | CO3 |

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| | <p>c. using all our senses (hearing, tasting, touching, seeing, smelling) d. using all our senses except hearing and touching</p> <p>2. Which of the following is not tested in food evaluation? a. Colour b. Crisp c. length of fibre d. smell</p> <p>3. In a food evaluation process, it is recommended to label food samples with a. general name of the food product e.g. cupcakes b. wrong names e.g. cookies instead of cupcakes c. specific descriptive terms e.g. 25g sugar cupcakes d. random numbers e.g. 345, 232, 114</p> <p>4. Food Product Specifications are: a. Instructions about how to prepare the food b. Details about the ingredients, size and packaging required to manufacture a food c. Explained in the manufacturer’s production flow chart d. The legal requirements for producing the food</p> <p>5. Statement 1: High temperatures may affect proteins to a large extent. Statement 2: Carbohydrate loss is the maximum in _____ and may lead to browning or caramelization. a) True, Fish b) True, Fruits c) False, Meat d) False, Milk</p> | |
| Q4 | <p>1. substance intentionally added that preserves flavour and improves taste is called _____ a) Food additive b) Food adulterant c) Food contaminant d) Food material</p> <p>2. Which of the following is NOT a function of a food additive _____ a) To maintain product consistency b) Maintain nutritive value c) Controlling acidity/alkalinity d) None of the mentioned</p> <p>3. Statement 1: Stabilizers, Emulsifiers are certain examples of food additives. Statement 2: Antioxidant is a class of food additive. a) True, False b) True, True c) False, False d) False, True</p> <p>4. _____ help in maintaining/controlling the acidic/alkaline changes during food processing and hence maintain flavor and stability.</p> | CO2 |

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| | <ul style="list-style-type: none"> a) Buffering agents b) Sequestrants c) Anti-caking agents d) Anti-foaming agents <p>5. Statement 1: Preservatives are food additives. Statement 2: Sweeteners consist of calorie, low-calorie and non-calorie sweeteners.</p> <ul style="list-style-type: none"> a) True, False b) True, True c) False, False d) False, True | |
| Q5 | <ul style="list-style-type: none"> 1. Milk digestibility is improved by using <ul style="list-style-type: none"> a. RNase b. Lactase c. β-amylase d. none of these 2. Which of the following enzyme is responsible for causing vitamin B deficiency disease beriberi <ul style="list-style-type: none"> a. Ascorbic acid oxidase b. Thiaminase c. Lipoxygenase d. None of these 3. Juice clarification extraction is facilitated by using <ul style="list-style-type: none"> a. Cellulases b. amylase c. inulinase d. lactase 4. Which is true about rennet? <ul style="list-style-type: none"> a. It is a mixture of protease chymosin and pepsin b. It is a mixture of rennin and pepsin c. Both (a) and (b) d. none of the above 5. The nature of an enzyme is <ul style="list-style-type: none"> a. Lipid b. Vitamin c. Carbohydrate d. Protein | CO4 |
| Q6 | <ul style="list-style-type: none"> 1. Leafy vegetables get most of their green color from: <ul style="list-style-type: none"> a. Carotene b. Chlorophyll c. Mitochondria d. Xanthophyll | CO5 |

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| | <p>2. Hot peppers get their heat from:</p> <ol style="list-style-type: none"> Acetic acid Capsaicin Lycopene Sulfuric Acid <p>3. Table sugar is which type of sugar?</p> <ol style="list-style-type: none"> Fructose Galactose Glucose Sucrose <p>4. A tomato gets its red color from:</p> <ol style="list-style-type: none"> Beta Carotene Fructose Lycopene Limonene <p>5. The bubbles in champagne and soda are:</p> <ol style="list-style-type: none"> Carbon Dioxide Hydrogen Nitrogen Oxygen | |
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SECTION B

- Each question will carry 10 marks**
- Instruction: Write short / brief notes**

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| Q 7 | Discuss about the different forms of water in food. How are water activity and shelf life related? | CO1 |

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| Q 8 | What is the role of enzymes in food industry? Explain with the help of suitable examples. | CO3 |
| Q 9 | Discuss about the different types of browning reaction with suitable examples for each one. | CO2 |
| Q 10 | Explain the physico- chemical changes that occur during food processing treatments? | CO3 |
| Q 11 | Why is sensory science important for new food product? Describe the different methods for sensory evaluation. | CO4 |
| Section C | | |
| 1. Each Question carries 20 Marks. 2. Instruction: Write long answer. | | |
| Q12 | Why are food additives important in food industry? Explain the function of different food additives with suitable examples. OR Discuss in detail the need of product development. What are the steps involved in new product development? | CO5 |