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| --- | --- | --- |
| Discipline | FOOD TECHNOLOGY | Time: 1 hour 30 minutes (90 minutes) |
| Course code | UK1DSCFDT102 | Total marks:42 |
| Course title | Introduction to food chemistry |  |
| Type of course | DSC |  |
| Semester:1 | 1 |  |
| Academic level:100-199 | 100-199 |  |
| Credit 4 | 4 |  |

Part A. 6 marks. Time 6 minutes

Objective type. 1 mark each. Answer all questions

(Cognitive level: Remember/understand)

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| Qn.no | Question | Cognitive level | Course outcome (CO) |
| 1 | Define monosaccharides. Give example | Remember | CO1 |
| 2 | List two natural preservatives | Remember | Co3 |
| 3 | Infer the role of antioxidants in our body. | Understand | Co3 |
| 4 | Classify the significance of PH in food processing. | Understand | Co1 |
| 5 | Give the Haworth projection formulae of glucose | Understand | Co1 |
| 6 | Relate the Maillard reaction to food browning. | Understand | Co2 |

Part B. 8 marks. Time 24 minutes



Short answer. 2marks each. Answer all questions

(Cognitive level: understanding/apply)



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| Qn.no | Question | Cognitive level | Course outcome (CO) |
| 7 | Characterize the principle of UV- visible spectroscopy. | Understand | Co4 |
| 8 | Compare covalent and ionic bond. | Understand | Co1 |
| 9 | Act upon the factors affecting food texture and stability. | Apply | Co2 |
| 10 | Prepare a list of common HPLC solvents. | Apply | Co4 |

Part C. 28 mars. Time 60 minutes

Long answer. 7 marks each. Answer all 4 questions, choosing among options within each question.

(Cognitive level: apply/ analyze/evaluate/create)

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| Qn.no | Question | Cognitive level | Course outcome (CO) |
| 11 | Apply the concept of protein Denaturation to food processing.  OR  Illustrate the use of UV visible spectroscopy in determining food quality | Apply | Co3 |
| 12 | Analyze the principle of UV visible spectroscopy, its construction and its application.  OR  Contrast the differences between NMR and IR in structural illustration | Analyze | Co3 |
| 13 | Describe the structure and function of protein in biological system.  OR  Describe the classification and structure of lipids | Evaluate | Co4 |
| 14 | Generalize the significance of food chemistry in ensuring food quality and safety.  OR  Combine atomic and molecular principles for food product development | Create | Co1 |

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| **Cognitive Level** | **Marks** | **Percentage** |
| Remember | 2 | 4.8 |
| Understand | 8 | 19.0 |
| Apply | 11 | 26.2 |
| Analyse | 7 | 16.7 |
| Evaluate | 7 | 16.7 |
| Create | 7 | 16.7 |
| **TOTAL** | **42** | **MARKS** |

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| --- | --- | --- |
| **Course Outcome** | **Marks** | **Percentage** |
| CO1 | 12 | 28.5% |
| CO2 | 3 | 7.14% |
| CO3 | 16 | 38.09% |
| CO4 | 11 | 26.2% |
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| **TOTAL** | **42** | **MARKS** |