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| **Scheme of Valuation/Answer Key**(Scheme of evaluation (marks in brackets) and answers of problems/key) |
| **APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**FOURTH SEMESTER B.TECH DEGREE EXAMINATION, MAY 2019 |
| **Course Code: FT206** |
| **Course Name: FOOD BIOTECHNOLOGY (FT)** |
| Max. Marks: 100 |  | Duration: 3 Hours |
| **PART A** |
|  |  | ***Answer any threefull questions, each question carries 10 marks.*** | Marks |
| 1 |  | DNA Replication- IntroductionReplication in prokaryotes-semi-conservativeMechanism of replicationEnzymes in DNA replicationProofreading | (2)(2)(2)(2)(2) |
| 2 |  | Translation-introductionSteps involvedGenetic codeDiagram | (2)(2)(3)(3) |
| 3 | a) | rDNA technology-introductionProcessDiagram | (2)(2)(1) |
|  | b) | Restriction endonucleases-DefinitionNomenclature and examples | (1)(4) |
| 4 |  | Operon concept-introductionTrp operonExplanationDiagram | (2)(2)(3)(3) |
| **PART B** |
| ***Answer any threefull questions, each question carries 10 marks.*** |
| 5 |  | Biopresevatives- IntroductionTypesNisin/NatamycinApllications | (2)(2)(3)(3) |
| 6 | a) | Tempeh –Definition and introductionTempeh-Flow chartNutritional benefits | (2)(2)(1) |
|  | b) | Food fermentation-IntroductionImportance of food fermentation in nutritional enhancement | (1)(4) |
| 7 |  | Citric acid-Definition process-introductionOrganisms involvedDiagram/flow chart | (2)(2)(3)(3) |
| 8 | a) | Mushroom-introductionProduction processFlow chart | (1)(2)(2) |
|  | b) | Beer-introductionIngredients | (1)(4) |
| **PART C** |
| ***Answer any fourfull questions, each question carries 10 marks.*** |
| 9 | a) | GM foods-introductionLabellingTraceability | (1)(2)(2) |
|  | b) | Golden rice-introductionProduction process | (1)(4) |
| 10 |  | Functional foods-introductionExamplesApplications | (2)(4)(4) |
| 11 | a) | IBSCMajor functions | (1)(4) |
|  | b) | GM foods-introductionEthical issues | (2)(3) |
| 12 |  | Introduction-Endogenous enzymesEffects of endogenous enzymes in the colour Effects of endogenous enzymes and texture of the food | (2)(4)(4) |
| 13 |  | Immobilized enzymes-introductionMethodsApplications | (2)(2) (4) |
| 14 |  | Introduction- enzymes in food industryMeat industryBaking industry | (2)(4)(4) |
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