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| **MODULE-01** | | | |
| **Q1** | **a** | Explain any two separation methods employed for enzyme based on size | 10 |
| **b** | Describe the mechanism of enzyme action | 10 |
| **OR** | | | |
| **Q2** | **a** | Describe the molecular weight determination of enzyme based chromatogram | 10 |
| **b** | Outline the bases of classification of enzyme with one example | 10 |
| **MODULE-02** | | | |
| **Q3** | **a** | Explain the mechanism of Coenzyme NAD/NADP | 10 |
| **b** | Discuss about standardization and optimization methods for enzyme activity? | 10 |
| **OR** | | | |
| **Q4** | **a** | Explain the mechanism of Coenzyme PLP | 10 |
| **b** | Illustrate isoenzyme measurement with two example by Kinetic method | 10 |
| **MODULE-03** | | | |
| **Q5** | **a** | Kinetic parameter of immobilized enzyme and free enzyme will differ. Justify | 10 |
| **b** | Summarize the significance of enzymes derived from thermophilic and hyperthermophillic organisms | 10 |
| **OR** | | | |
| **Q6** | **a** | Describe bioreactors for immobilized enzyme. Add a note on difference between free enzyme and immobilized enzyme reactor | 10 |
| **b** | Define immobilized enzyme. Note on covalent technique of immobilization of enzyme | 10 |
| **MODULE-04** | | | |
| **Q7** | **a** | Using steroid as a template , explain the construction of novel enzymes | 10 |
| **b** | Describe the biological importance of enzyme HMG CoA reductase inhibitors | 10 |
| **OR** | | | |
| **Q8** | **a** | Describe synthesis of artificial enzymes. Note on its application | 10 |
| **b** | Highlight on the clinical significance of enzyme GPD | 10 |
| **MODULE-05** | | | |
| **Q9** | **a** | Note on SGOT and SGPT | 10 |
| **b** | Discuss the application of protease in food and Leather and Wool Industry | 10 |
| **OR** | | | |
| **Q10** | **a** | Explain the production of glucose syrup from starch | 10 |
| **b** | Enzyme as a biomarker for Myocardial infraction. Justify | 10 |

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| **Table showing the Bloom’s Taxonomy Level, Course Outcome and Programme Outcome** | | | | |
|  | | | | |
| **Question** | | **Bloom’s Taxonomy Level attached** | **Course Outcome** | **Programme Outcome** |
| **Q.1** | a | L2 | CO-1 | PO-2 |
| b | L2 | CO-1 | PO-2 |
| **Q.2** | a | L2 | CO-1 | PO-2 |
| b | L2 | CO-1 | PO-2 |
| **Q.3** | a | L2 | CO-1 | PO-1 |
| b | L2 | CO-1 | PO-1 |
| **Q.4** | a | L2 | CO-1 | PO-1 |
| b | L2 | CO-1 | PO-1 |
| **Q.5** | a | L3 | CO-2 | PO-3 |
| b | L2 | CO-2 | PO-3 |
| **Q.6** | a | L3 | CO-2 | PO-3 |
| b | L2 | CO-2 | PO-3 |
| **Q.7** | a | L4 | CO-2 | PO-4 |
| b | L2 | CO-2 | PO-4 |
| **Q.8** | a | L2 | CO-2 | PO-4 |
| b | L2 | CO-2 | PO-4 |
| **Q.9** | a | L2 | CO-2 | PO-6 |
| b | L2 | CO-2 | PO-6 |
| **Q.10** | a | L2 | CO-2 | PO-6 |
| b | L3 | CO-2 | PO-6 |
| **Lower order thinking skills** | | | | |
| Bloom’s Taxonomy Levels |  | Remembering ( knowledge): 𝐿1 | Understanding Comprehension) : 𝐿2 | Applying (Application): 𝐿3 |
| **Higher order thinking skills** | | | |
|  | Analyzing (Analysis): 𝐿4 | Valuating (Evaluation): 𝐿5 | Creating (Synthesis): 𝐿6 |
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