

**GUJARAT NATIONAL LAW UNIVERSITY
GANDHINAGAR**

Course: **Bio-chemistry and Bio-informatics**
Semester-III (Batch: 2019-24)

End Semester Online Examination: December2020

Date: 26thDecember, 2020

Duration: 8 hours

Max. Marks: 40

Instructions:

- The respective marks for each question are indicated in-line.
- Indicate correct question numbers in front of the answer.
- No questions or clarification can be sought during the exam period, answer as it is, giving reason, if any.

	Marks
Q.1 Pasteurization and irradiation controls spoilage and eliminate food borne pathogen, there by extending shelf life. Yet there is a fundamental difference. Describe the same. Add a note on food irradiation facilities available in India and the regulatory guidelines. How can the radiation processed foods be identified in the market?	(8)
Q.2 Describe the metabolism of phenylalanine in the body. Why is Phenylketonuria resulting from dihydropteridine reductase deficiency a more serious disorder than PKU resulting from Phenylalanine hydroxylase deficiency?	(8)
Q.3 Explain nomenclature and IUBMB classification of enzymes with suitable examples. Add a note on enzymes used in food industry.	(8)
Q.4 What is proteomics? How is it different from metabolomics and genomics? Discuss the regulatory issues in proteomic research.	(8)
Q.5 Using OMIM data base, discuss the clinical features, biochemical features, cytogenetic location and inheritance pattern of Lesch-Nyhan syndrome and Gout.	(8)
