## TABLE OF CONTENTS

Ser. No.	Title of Manuscript, Authorship and Affiliation	Page No.
1.	Bark Valorization for Bio-based Polyphenolic and Polyaromatic Compounds: A Review Muhammad. Ferhan Centre for Biocomposites and Biomaterials Processing (CBBP), Faculty of Forestry, University of Toronto, Ontario, Canada	1-15
2.	Recent Advancements in Cell-free Protein Expression: Review Paper  Muhammad Anjum Zia* and Samreen Rasul  Enzyme Biotechnology Laboratory, Department of Biochemistry,  University of Agriculture, Faisalabad-38040, Pakistan	16-27
3.	In silico Structural and Functional Characterization of a Hypothetical Protein of Vaccinia Virus  Malik Siddique Mahmood <sup>1</sup> , Naeem Mahmood Ashraf <sup>2</sup> , Muhammad Bilal <sup>3</sup> , Fouzia Ashraf <sup>4</sup> , Aadil Hussain <sup>3</sup> , Muhammad Zubair  Mehboob <sup>2</sup> , Iqra Butt <sup>2</sup> , Komal Tariq <sup>2</sup> , Attha Tallat <sup>2</sup> , Kiran Tanveer <sup>2</sup> , Ayesha Aslam <sup>1</sup> , Umer Rashid <sup>2</sup> , Muhammad Naveed <sup>1*</sup> <sup>1</sup> Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore, Pakistan <sup>2</sup> Department of Biochemistry & Molecular Biology, University of Gujrat, Gujrat, Pakistan <sup>3</sup> Department of Pathology, Nawaz Sharif Medical College, University of Gujrat, Pakistan <sup>4</sup> Punjab AIDS Control Program, Molecular Diagnostics Section, Jinnah Hospital, Lahore, Pakistan	28-35
4.	Production and purification of α-Amylase by <i>Aspergillus sydowii</i> through liquid state and solid state fermentation <i>Ume Salma Liaqat</i> <sup>1</sup> , <i>M. Javaid Asad</i> *2, <i>Raja Tahir Mahmood</i> <sup>3</sup> , <i>M. Gulfraz</i> <sup>4</sup> and Sajid Nadeem <sup>1</sup> Department of Biology, <sup>2</sup> Department of Biochemistry, PMAS-Arid Agriculture University Rawalpindi  Department of Biotechnology, Mirpur University of Science and Technology (MUST), Mirpur AJK  Department of Chemistry, COMSATS Institute of Information Technology (CIIT), Abbottabad	36-43
5.	Airborne Fungal Analysis of Different Units of Hospitals Present in Bhimber, Azad Kashmir, Pakistan  Tanveer Hussain, Muhammad Ishtiaq, Nafeesa Zahid and Shahzad  Azam	44-51

	Department of Botany, Mirpur University of Science and Technology Bhimber Campus, Bhimber Azad Kashmir, Pakistan	
6.	Estimation of Serum Levels of Calcium and Inorganic Phosphorus in  Breast Cancer Patients  Safa Safdar <sup>1</sup> , Amna Younus <sup>1</sup> , Mariam Faiz <sup>2</sup> <sup>1</sup> Biochemistry Department Kinnaird College for women Lahore <sup>2</sup> Institute of Nuclear Medicine and Oncology Lahore (INMOL)	52-57
7.	Evaluation of Climatic and Topographical Effects on Bioactive Compounds and Mineral Profiles of Two Selected Samples of Cauliflower  Tahir Mehmood <sup>1</sup> *, Lubna Nawaz <sup>1</sup> , Mudassir Iqbal <sup>2,3</sup> , Shoaib Ahmad Malik <sup>4</sup> , Aftab Safdar Khan <sup>1</sup> , Faiza Siddique <sup>1</sup> and Qudsia Tabassam <sup>2</sup> ¹Department of Chemistry, University of Sargodha, 40100 Sargodha, Pakistan  ²Department of Chemistry, School of Natural Sciences, National University of Sciences and Technology (NUST), H-12, Islamabad, 44000, Pakistan.  ³Department of Chemistry, University of Fribourg, Chemin du Musee 9, Fribourg 1700, Switzerland.  ⁴Department of Biochemistry, Sargodha Medical College, University of Sargodha, 40100 Sargodha, Pakistan	58-68
8.	Antidiabetic Efficacy of Various Organic Fractions of Mangifera indica Leaves Fatma Hussain, Zubaida Khan Clinico-Medical Biochemistry Laboratory (CMBL), Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad-38040, Pakistan	69-75
9.	Improved Catalytic and Dye Decolorization Properties of Chitosan Beads Immobilized Manganese Peroxidase from Ganoderma lucidum IBL-05 Muhammad Asgher <sup>1*</sup> , Muhammad Bilal <sup>1</sup> , Haq Nawaz Bhatti <sup>2</sup> Department of Biochemistry, <sup>2</sup> Department of Chemistry, University of Agriculture, Faisalabad, Pakistan	76-89
10	Characterization and Production of Glucose Oxidase from Penicillium notatum by using Response Surface Methodology Muhammad Anjum Zia, Hira Javed and Khalil-ur-Rahman Enzyme Biotechnology Lab., Department of Biochemistry, University of Agriculture, Faisalabad-38040, Pakistan.	90-97