# NATIONAL LEVEL WEBINAR ON "CLASSIFICATION AND PHYLOGENY OF ALGAE EXPLAINED THROUGH ENDOSYMBIOTIC THEORY"

Date-28.09.2021

SPEAKER- Dr. Samit Ray-Professor of Botany, Visva-Bharati University.

#### **Number of Participants-62**



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#### NOTICE

No: BGC 807/18/2021

Dated: 20th September, 2021

In context of the notice dated March 12, 2020, it is to be informed that the seminar of Dr. Samit Ray, Professor of Botany, Visva-Bharati University-topic entitled "Algal diversity, classification and phylogenetic considerations" which was scheduled to be held on the 19th March (Thursday), 2020 at 2.00 PM is rescheduled on 28th September 2021 through online mode and the Topic title would be "Classification And Phylogeny Of Algae Explained Through Endosymbiotic Theory"

All interested students, staff and faculty members are requested to participate in this interactive Webinar. The students of PG Semester-II and Semester-IV of this Department are specifically instructed to attain the same.

Dr. Jukta Adhikari (W.B.S.E.S) Professor & Head P.G Department of Botany

#### **Brief Report:**

The webinar aimed to explore Algal Diversity, highlighting their resilience and adaptability across diverse environments. Dr. Ray emphasized the pivotal role of the endosymbiotic theory according to which the ancestral eukaryotic cells engulfed aerobic bacteria (like mitochondria) and cyanobacteria (like chloroplasts) through phagocytosis. Instead of being digested, these bacteria formed a symbiotic relationship with the host cell, providing essential functions like energy production and photosynthesis. Eventually, these bacteria integrated into the host cell, becoming modern eukaryotic organelles. Evidence includes similarities between organelles and free-living prokaryotes, their circular DNA, and ability to replicate independently. This theory explains the complexity and diversity of eukaryotic cells, emphasizing the role of symbiosis in evolution. The webinar provides students with a comprehensive understanding of how the endosymbiotic theory explains the evolutionary relationships among different groups of algae, while also equipping them with foundational knowledge in molecular techniques for algal classification and phylogenetic analysis.



