

# UNIVERSITY OF NORTH BENGAL

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## UNIVERSITY OF NORTH BENGAL OFFICE OF THE REGISTRAR

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### ADMISSION NOTICE

Applications are invited on plain paper from interested candidates for admission in the **Certificate Course on Plant Tissue Culture** to be commenced on **17<sup>th</sup> January 2020** on the University Campus. Applications are to be addressed to **Prof. Arnab Sen, Course Coordinator, Deptt. of Botany/ Bio-Informatics, University of North Bengal** by **15<sup>th</sup> January 2020**. For details visit [www.nbu.ac.in](http://www.nbu.ac.in).

**Advt. No. 168/R-2019, Dated: 24.12.2019 Registrar**

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## Admission Notice Certificate Course in Plant Tissue Culture

Plant tissue culture is a technology of growing isolated plant cells, tissues, organs or whole plants on semisolid or liquid synthetic nutrient media under aseptic and controlled environment. The science and art of plant tissue culture is historically linked to the discovery of the cell and subsequent propounding of the cell theory. The concept of 'Totipotency' which is an inherent part of the cell theory of Schleiden (1838) and Schwann (1839) is the basis for plant tissue culture. *In vitro* technique dates back to 1902, when Haberlandt predicted the totipotency of plant cells. Major breakthroughs in plant tissue culture were achieved with the discovery of auxins, cytokinins and formulation of nutrient media like Murashige and Skoog (1962).

Plant tissue culture has been viewed as a key technology for enhancing the capability for production of large quantities of planting materials of selected elite and high yielding varieties so as to boost production and productivity. This technology has enormous potential for meeting the demands of both domestic and export market in terms of high quality planting materials. Presently, tissue culture technology is being exploited for production of elite planting materials with desirable qualities. Besides, plant tissue culture is an essential component of biotechnology, which has contributed tremendously to crop improvement and has potential for the future. In this area, research efforts have increased drastically worldwide in the recent years including the effort in developing countries.

The Eastern Himalayas region is globally important by its biodiversity. It has been included among Earth's biodiversity hotspots. Darjeeling, situated on the eastern Himalayas and represents with its great range of altitudinal variations. It serves as one of the richest and interesting botanical regions in the whole of Indian subcontinent and thus, has been a central point of natural and floristic attraction for tourists and nature lovers. Its rich flora and fauna is of paramount significance for the nature lovers and biologists. The estimated vascular plants for Darjeeling district is 2,912 of diverse forms, such as trees, shrubs, climbers, lianas, annual and perennial herbs, geophytes, epiphytes, parasites, and saprophytes, are evenly distributed in this district of which several are endemic, endangered or have immense horticultural and medicinal value. There are 90 genera with 283 Orchid species reported from Darjeeling. Of them, 42 genera with 167 species are epiphytic, 44 genera and 107 species are terrestrial 3 genera with 4 species are saprophytic and the rest 3 genera with 5 species are partial/semi saprophytic in habitat.

The exotic flora of this region is exploited by horticulturists for whom several nurseries and tissue culture laboratories have developed in this region. But, in most of the cases they lack technicians having much scientific expertise. Besides this, tissue culture is equally important for Botany and Biotechnology Laboratories.

Previously, two Certificate Courses in plant Tissue Culture was organized by Department of Lifelong Learning and Extension and Department of Botany in 2006 and the other on 2019 organized by Department of Lifelong Learning and Extension, Department of Botany and Department of Tea Science. The courses were a grand success. The participants of the said course are presently engaged in Different Laboratories in West Bengal and Sikkim.

So, with a pleasant past experience, three Departments of University of North Bengal - the Department of Lifelong Learning and Extension, Department of Botany and Department of Tea Science have joined hands to propose for the arrangement of a **Certificate Course in Plant Tissue Culture**. The detailed information of the proposed certificate course is as follows-

**Duration: 3 months (Saturdays and Sundays) – Commenced on 17<sup>th</sup> January, 2020.**

**Eligibility: Graduate in any discipline**

**Course fee: 500/- for general candidates, 300/- for SC, ST and OBC, Nil for BPL.**

(Course fee will include, regular classes with course materials, Laboratory consumables, Project assignment consumables, Bench fee and one-day excursion. However, please note that no accommodation will be provided by the University authority.)

**Number of Seat: 12** (Preference will be given through first come first serve basis)

Applications are invited on plain paper from interested candidates for admission into the **Certificate Course in Plant Tissue Culture**. **The classes will be held on Saturday's and Sunday's of every week**. The selection will be made on first come first basis. Applications are to be addressed to **Prof. Arnab Sen, Course Coordinator, Department of Botany/Bio-Informatics, University of North Bengal** by **15<sup>th</sup> January 2020**. List of selected candidates will be displayed on the Department Notice Board on **16<sup>th</sup> January 2020**. For any further detail **contact Nos. 9434307487/ 9434143574/ 9832094875**.

**Head  
Department of Lifelong Learning and Extension**