



KSCSTEJNTBGRI

കെ എസ് സി എസ് ടി ഇ - ജവഹർലാൽ നെഹറു ട്രോപ്പിക്കൽ ബോട്ടാണിക് ഗാർഡൻ ആൻഡ് റിസർച്ച് ഇൻസ്റ്റിറ്റ്യൂട്ട്  
**KSCSTE - Jawaharlal Nehru Tropical Botanic Garden and Research Institute**

An institution of Kerala State Council for Science, Technology & Environment;

National Centre of Excellence, Govt. of India



Dr. B. Sabulal  
Senior Principal Scientist and Head  
Phytochemistry and Phytopharmacology Division

8 July 2022

## Certificate

Certified that Ms. Merin James, B. Pharm, Nirmala College of Pharmacy, Muvattupuzha, Ernakulam has attended one-month training programme in phytochemical analysis at the Phytochemistry and Phytopharmacology Division, KSCSTE-JNTBGRI, Palode from 9/6/2022 to 08/07/2022. During this period, she has gained hands on training in extraction of medicinal plants, fractionation of extracts and extraction of essential oils and their chemical analysis using GC-FID and GC-MS. She also has got training in various chromatographic techniques such as Column Chromatography (CC), Thin Layer Chromatography (TLC) and High-Performance Thin Layer chromatography (HPTLC). Ms. Merin is hardworking, sincere and dedicated; and she bears excellent character and conduct. I wish the very best in her future professional career.

*Sabulal*  
(Dr. B. Sabulal)

**Dr. B. SABULAL**  
Sr. Principal Scientist & Head  
Phytochemistry and Phytopharmacology Division  
KSCSTE - Jawaharlal Nehru Tropical Botanic Garden  
and Research Institute, Palode  
Thiruvananthapuram - 695 562, Kerala, India



Karimancode P. O., Pacha-Palode, Thiruvananthapuram - 695 562, Kerala, India.

Ph: +91 (0)472 2869226, 2869626, 2869628; Fax: +91 (0)472 869646, 2868902; e-mail: director@jntbgri.res.in; web: www.jntbgri.res.in

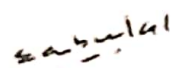


Dr. B. Sabulal  
Senior Principal Scientist and Head  
Phytochemistry and Phytopharmacology Division

8 July 2022

### Certificate

Certified that Ms. Rakhy Jolly, B. Pharm, Nirmala College of Pharmacy, Muvattupuzha, Ernakulam has attended one-month training programme in phytochemical analysis at the Phytochemistry and Phytopharmacology Division, KSCSTE-JNTBGRI, Palode from 9/6/2022 to 08/07/2022. During this period, she has gained hands on training in extraction of medicinal plants, fractionation of extracts and extraction of essential oils and their chemical analysis using GC-FID and GC-MS. She also has got training in various chromatographic techniques such as Column Chromatography (CC), Thin Layer Chromatography (TLC) and High-Performance Thin Layer chromatography (HPTLC). Ms. Rakhy is hardworking, sincere and dedicated; and she bears excellent character and conduct. I wish the very best in her future professional career.

  
(Dr. B. Sabulal)

**Dr. B. SABULAL**  
Sr. Principal Scientist & Head  
Phytochemistry and Phytopharmacology Division  
KSCSTE - Jawaharlal Nehru Tropical Botanic Garden  
and Research Institute, Palode  
Thiruvananthapuram - 695 562, Kerala, India

