AY 2018 Onwards

Hindi Vidya Prachar Samiti's

RAMNIRANJAN JHUNJHUNWALA COLLEGE (AUTONOMOUS)

(Also known as R. J. College of Arts, Science & Commerce as per UGC Notification)

Affiliated to UNIVERSITY OF MUMBAI II Recognized by UGC under 2f & 12B
NAAC Accredited 'A GRADE' with CGPA 3.50

Knowledge is all Ambrosia

CERTIFICATE COURSE IN

SEPARATION TECHNIQUES FOR PHYTOCHEMICALS

www.rjcollege.edu.in

rjcollege@rjcollege.edu.in

+91 22 25151763

Opposite Railway Station, Ghatkopar (W), Mumbai 400 086, Maharashtra, INDIA.

CERTIFICATE COURSE IN SEPARATION TECHNIQUES FOR PHYTOCHEMICALS

ABOUT US

Hindi Vidya Prachar Samiti was incepted on the auspicious day of Shri Krishna Janmashtami, 15th August 1938. A brain child of a visionary Late Shri Nandkishore Singh Jairamji, samiti was established with the objectives of catering to the educational needs of the Hindi speaking community. Ramniranjan Jhunjhunwala College came into existence in 1963, enabling a larger section of the society to take advantage of the facilities provided for higher education.

From 1999-2000 the College has added a number of self-financing courses like B.M.S., B.B.I., B.Sc. in Computer Science, Information Technology, Biotechnology, M.Sc. in Computer Science, Biotechnology and Information Technology as well as add on courses, which further hone the special skills of the students.

The college has been reaccredited with 'A' Grade by NAAC in 2014 with a CGPA 3.50 and received the Best College Award (2007-2008) of the University of Mumbai.

The College has been bestowed with IMC "Ramkrishna Bajaj Performance Excellence Trophy", 2010.

The Principal of the college was awarded "Best Teacher" by Government of Maharashtra in 2011.

Government of Maharashtra conferred the college with "JAAGAR JAANIVANCHA" (First in Mumbai Suburban- in 2013 and Second in Mumbai Suburban- in 2014) for safety of girls.

Course Code: RJBOTC07

Duration: 30 hours

Credits : 02

LEARNING OUTCOME

Students will be able to

- Handle instruments like centrifuge, colorimeter, Spectrophotometer
- Apply the knowledge in the area of Natural products
- Purify value added products from plants and plant parts.

COURSE CONTENT

Unit I	Centrifugation : importance of centrifugal force and gravity, gradient solution making, high speed refrigerated centrifugation for denaturing entity
Unit II	Column chromatography: importance of porosity, mass and charge of matrix, affinity and retention time, study of its applications in purification and HPLC
Unit III	Paper and Thin Layer Chromatography techniques :– mobile and stationary phase importance, preliminary screening of secondary metabolites in class of alkaloids, glycosides, polyphenols, terpenoids and steroids with Rf value calculation
Unit IV	Electrophoresis techniques: principles of electrophoresis, native and SDS importance, study of gel matrix for targeted specific mass and charge compounds with troubleshooting and interpretation of bands.

ASSESSMENT

Continuous evaluation both theory and practical.

MEDIUM OF INSTRUCTION English

100 MARKS PASSING 40

WHO SHOULD DO IT?

Pursuing B.Sc or Completed B.Sc in Chemistry or any branch of Biological Science