



**FACULTY COUNCIL OF SCIENCE  
JADAVPUR UNIVERSITY**

**NOTICE**

It is to notify for information of all concerned that the classes of Ph.D. Course Work for the year 2019 under the **Department of Mathematics** will commence from Monday, the 1<sup>st</sup> of July 2019 in the respective department. All registered candidates who are willing to do Ph.D. course work under the said Department are requested to submit Ph.D. Course registration form duly forwarded by the concerned Supervisor(s) and HoD of the respective Department to the Office of the undersigned within Friday, 28<sup>th</sup> June 2019.

The course work registration form and the modules of course work are annexed in the consecutive pages.

**Date: 12/06/2019**

**Sd/-**

**(Dr. Atiskumar Chattopadhyay)  
Principal Secretary,  
Faculty Council of Science**



# যাদবপুর বিশ্ববিদ্যালয়

JADAVPUR UNIVERSITY  
KOLKATA-700 032

FORM FOR COURSE REGISTRATION FOR PH.D.SCHOLARS  
(UNDER F.E.T./F.SC./F.A.)

DEPARTMENT/SCHOOL/INSTITUTION \_\_\_\_\_  
(in which registered for Ph.D.)

(ENROLMENT FOR SEMESTER: JULY/DECEMBER, JANUARY/JUNE)

1. Name in full (in Block letters) : \_\_\_\_\_
2. Sex(Male/Female) : \_\_\_\_\_
3. Address for Communication: \_\_\_\_\_  
\_\_\_\_\_
4. Phone No. \_\_\_\_\_ Mobile No. \_\_\_\_\_
5. Course Taken:

Sl.No.	Name of Subject/course	Subject Code	Dept./School/Institution under which subject offered
1.	Research Methodology	A	
2.	Review of Research Work	B	
3.			
4.			
5.			
6.			

Date: \_\_\_\_\_

Signature of the student in full

**Head of the Department/Director of School**

**Supervisor(s)**

**Signature of the Dean, Faculty of Science**

Registration No. \_\_\_\_\_ of \_\_\_\_\_

Date of Registration \_\_\_\_\_

Superintendent, Ph.D. Cell, Faculty of Science

# MODULES OF COURSE WORK FOR Ph.D(Sc.)

## DEPARTMENT OF MATHEMATICS

Courses	Subject	Full Marks
Compulsory Units	A. Research Methodology	50
	B. Review of Research Work	50
Elective Units	1. Difference Equation and its Application	25
	2. Introduction to Control Theory and its Application-I	25
	3. Introduction to Control Theory and its Application-II	25
	4. Introduction to Control Theory and its Application-III	25
	5. Computational Techniques using Mathematica and Matlab	25
	6. Numerical Simulation and Plasma system	25
	7. Inventory Control	25
	8. Ricci Flow	25
	9. Some Structures on Differentiable manifold	25
	10. Spectrum and Numerical range	25
	11. $C^*$ - Algebra	25
	14. Topological Groups	25
	15. Sequence Spaces	25
	16. Integral Equations	25
	17. Theory of Distribution	25
	18. Introduction to the Theory of Water Waves	25
	19. Modules, Rings, Groups and Categories	25
	20. Lattice Theory	25
	21. Categories and Universal Algebra	25
	22. Theory of Semi groups	25
	23. Theory of Semirings	25
	24. Cosmology	25
	25. Lagrangian and Hamiltonian formulations relativity of general relativity.	25
	26. Rotating Black Holes	25
	27. Geodesic Congruences	25

**N.B. :** Students to opt elective units of 100 marks out of the elective units offered.