

SCHOOL OF STUDIES IN BIOTECHNOLOGY

**Pt. Ravishankar Shukla University
Raipur-492010**

Syllabus

Ph.D. Course Work in Biotechnology

Session

2016-2017

2017-2018

Ravishankar
25/2/16

Ravishankar

Ravishankar

School of Studies in Biotechnology
Syllabus for PhD Course Work in Biotechnology (2016-18)
One Semester

There are Two papers; each with 100 maximum marks.

Paper-I: Research Methodology, Advanced Tools & Techniques, Quantitative Data Analyses and Computer Fundamentals

Paper-II Review of Literature & Seminar

Paper- I: Research Methodology, Advanced Tools & Techniques, Quantitative Data Analyses and Computer Fundamentals		Maximum Marks
A	Research Methodology Essential steps in research: Identification, Selection of objectives, Research design: - Components, importance of literature collection, citation & indexing. Research ethics, IPR, Experimental error and control, Research Report Presentation-table, Figure, Formatting and typing	25.0
B	Advanced Tools & Techniques Electrophoresis, HPLC, Microscopy, PCR, Biosensors: Types, Application of biosensor, Protein sequencing, DNA sequencing, Radioisotope Techniques	25.0
C	Quantitative Data Analysis Measures of variability: Standard Deviation, Standard Error, Coefficient of Variation, Correlation and Regression, Test of Significant: t-test, chi-square test, Frequency distribution: Binomial and normal distribution	25.0
D	Computer Fundamentals Computer Application, Application of software, Internet and Biotechnology, Fundamental of Bioinformatics, Biological databases and Biotechnology	25.0
Paper-II: Review of Literature & Seminar		Maximum Marks
A	Review of Literature- Writing review of literature in the area of the proposed Ph.D. program	50.0
B	Seminar-Based on the review of literature	50.0

Note:

- There will be FOUR units (A, B, C & D) of 25 marks each. The pattern will include both objective (multiple-choice questions) and objective (short answer, using 50 to 100 words) questions.
- The candidate must be obtain 50% or more marks to qualify in the course work. The answer paper will be assessed independently by two examiners.

BoS approved syllabus for Ph.D. Course Work in Biotechnology
(Academic session 2016-17 and 2017-18)

Mukherjee
25/2/16
Sonia S
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