

Rayat Shikshan Sanstha's  
**D. P. Bhosale College, Koregaon**

**Department of Mathematics**

**Notice**

Date - 17 / 01 / 2022

All the Students of B.Sc. III are here by informed that the Department of Mathematics has organized the Student's Seminar on Thursday, 20<sup>th</sup> January, 2022. All the Students should present at 12:15 p.m. in the department of Mathematics.



*Arunke*  
**Head**  
Department of Mathematics  
D. P. Bhosale College, Koregaon

Rayat Shikshan Sanstha's  
**D.P. Bhosale College, Koregaon**

**Department of Mathematics**

**Student's Seminar (2021-22)**

### **Brief Report**

Department of Mathematics organized Student's Seminar for overall development of the students, in the academic year 2021-22 on Thursday, 20<sup>th</sup> January, 2022. The Main objective of this activity is to improve logical thinking, teaching skills and personality development among the students.

The 06 students are participated in this activity. Students represent seminar on various topics such as Mathematical Analysis, Game theory, Complex Analysis, Group, Logical Equivalence, Modern algebra.



*A. Lunche*

**Head**  
**Department of Mathematics**  
**D. P. Bhosale College, Koregaon**

Rayat Shikshan Sanstha's  
**D. P. Bhosale College, Koregaon**

**Department of Mathematics**

**Student's Seminar (2021-22)**

Sr. No.	Roll No.	Name of the Student	Seminar Topic
1	22646	Chavan Pratiksha Sudhir	Modern Algebra
2	22647	Jadhav Pranali Pandurang	Complex Analysis
3	22648	Nikam Divya Vijay	Game Theory
4	22649	Nikam Shreenath Prakash	Logical Equivalence
5	22650	Shete Samrudhi Nandkumar	Group
6	22651	Godase Ganesh Tanaji	Mathematical Logic

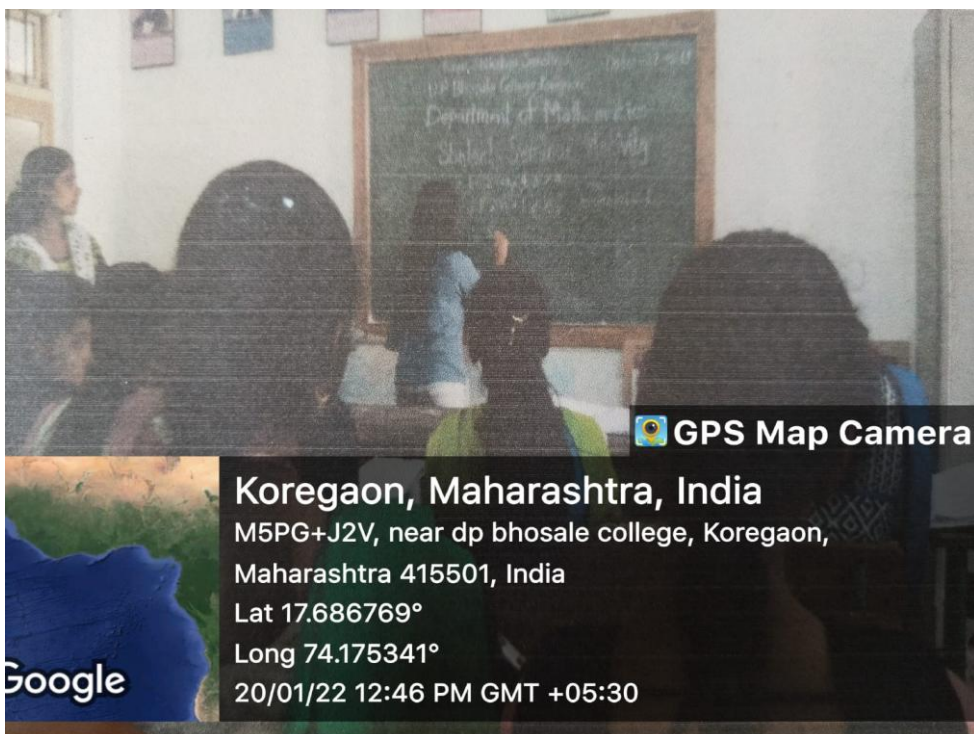


*A. Lunche*  
**Head**  
Department of Mathematics  
D. P. Bhosale College, Koregaon

Rayat Shikshan Sanstha's  
**D. P. Bhosale College, Koregaon**

**Department of Mathematics**

**Student's Seminar (2021-22)**



Rayat Shikshan Sanstha's,  
D.P.Bhosale College Koregaon

Department Of Mathematics

Seminar Activity

Name of the Student: chavan Pratiksha Sudhi

Roll No. : 22646

Date: 20 Jun 2022

Paper No.: IX

Class: BSC III

Topic: Modern Algebra : Set and group student sign. Pratiksha

Synopsis:

- Definition of set : A set is collection of well defined object.
- Group : Let  $G$  be any non empty set and  $*$  be a binary operation on group  $G$  such that,
  - 1) closure property :
  - 2) Associative property :
  - 3) Existence of Identity :
  - 4) Existence of Inverse :
- Types of Group
  - 1) Abelian Group :
  - 2) Order of Group :
  - 3) Finite group :
  - 4) Infinite group :
- Example on abelian group :

Reference Books: John. B Fraleigh .

Marks Obtained: 9/10

Sign of Teacher: Pratiksha

Pratiksha

Head

Department of Mathematics  
D. P. Bhosale College, Koregaon



**Rayat Shikshan Sanstha's,**  
**D.P.Bhosale College Koregaon**  
**Department Of Mathematics**  
**Seminar Activity**

Name of the Student: Godase Ganesh Tanaji

Roll No. : 22647

Paper No.:

Topic: Mathematical logic

Date: 20/01/2022

Class: BSC - III

Student Sign. - Godase

Synopsis: a] Statement - A statement or Proposition is a sentence that is true or false but not both

1] Compound Statement: A statement which contains some logical connectives is called a compound statement

2] Atomic Statement: A statement which contains no logical connectives are called an atomic statement

Reference Books: Notes, Swasanna S. EPP, Descartes Mathematics with Applications, Mc Grow Hill 2002

Marks Obtained: 9/10

Sign of Teacher: Ashinakar

Ashinakar

**Head**

**Department of Mathematics**  
**D. P. Bhosale College, Koregaon**

**Rayat Shikshan Sanstha's,**  
**D.P.Bhosale College Koregaon**  
**Department Of Mathematics**  
**Seminar Activity**

Name of the Student: Jadhav Pranali Pandurang

Roll No. : 22648

Date: 20/11/22

Paper No.: DSE-F11

Class: Bsc III

Topic: Complex Analysis

Student's Sign - Jadhav.P.P

Synopsis:

Complex Analysis

- Importance of complex Analysis
- What is a complex Number
- The Algebra of Complex number
- Addition, subtraction, multiplication
- Graphical representation of complex No
- Euler's formula.

Reference Books: James ward Brown & Ruelv. churchill.

Marks Obtained: 9/10

Sign of Teacher: Ahineke

Ahineke  
**Head**  
**Department of Mathematics**  
**D. P. Bhosale College, Koregaon**

Rayat Shikshan Sanstha's,  
D.P.Bhosale College Koregaon

Department Of Mathematics

Seminar Activity

Name of the Student: Divya Vijay Nikam.

Roll No. : 22649

Paper No.: DSE - E11

Topic: Game theory.

Date: 20/1/22

Class: BSC-III

Students sign: Divya Nikam

Synopsis:

1) Basic Terms -

2) Game with saddle point -

3) Example of game theory -

	i	ii	iii	iv
i	20	15	12	35
ii	25	14	8	10
iii	40	2	10	5
iv	-5	4	11	0

Reference Books: K. Vand Mohan.

Marks Obtained: 9/10

Sign of Teacher: A. K. Indore

A. K. Indore  
Head  
Department of Mathematics  
D. P. Bhosale College, Koregaon



Rayat Shikshan Sanstha's,  
D.P.Bhosale College Koregaon

## Department Of Mathematics

### Seminar Activity

Name of the Student: Nikam Shreenath Prakash

Roll No. : 22650

Date: 20-01-22

Paper No.: DSE - F12

Class: B.Sc. III

Topic: Logical Equivalence

Synopsis:

#### Definition of Logical Equivalence -

The statements  $p$  and  $q$  are said to be logically equivalent if they have same truth values. The logical equivalence of  $p$  and  $q$  is denoted as  $p \equiv q$ .

#### Various laws of Logical equivalence -

Examples - Use truth table to show that the following statement forms are logically equivalent.


1)  $p \vee q \rightarrow r$  and  $(p \rightarrow r) \wedge (q \rightarrow r)$

2)  $p \rightarrow q$  and  $\sim p \vee q$

3)  $p \leftrightarrow q$  and  $(p \rightarrow q) \wedge (q \rightarrow p)$

Reference Books: Discrete mathematics with Applications,  
PWS Publishing company, 1995.

Marks Obtained: 9/10

Sign of Teacher: 

Rayat Shikshan Sanstha's,  
D.P.Bhosale College Koregaon

Department Of Mathematics

Seminar Activity

Name of the Student: Samruddhi Nandkumar shele

Roll No. : 22651

Date: 20/1/2022

Paper No.: Abstract Algebra. E 10

Class: BSc III

Topic: Group

Student Sign. - Shele

Synopsis:

- 1) Binary operations: [Def<sup>n</sup>]
- 2) Group: A non empty set  $G$  together with an operation is called a group.
- 3) Abelian Group:
- 4) Algebraic structure:
- 5) Quaternion group:
- 6) Uniqueness of identity
- 7) Uniqueness of inverse
- 8) Thm<sup>m</sup>: The left identity is also the right identity
- 9) Thm<sup>m</sup>: If let  $G$  be a group and  $a \in G$  then  $(a^{-1})^{-1} = a$

Reference Books: Jonh B. Fraleigh

Marks Obtained: 9/10

Sign of Teacher: Ashin

Ashin

Head

Department of Mathematics  
D. P. Bhosale College, Koregaon