



R. J. COLLEGE of Arts, Science & Commerce (AUTONOMOUS)

(Hindi Vidya Prachar Samiti's RAMNIRANJAN JHUNJHUNWALA COLLEGE of Arts, Science & Commerce)

Opposite Ghatkopar Railway Station, Ghatkopar (West), Mumbai 400086, Maharashtra, INDIA.

Website: www.rjcollege.edu.in

Email: rjcollege@rjcollege.edu.in

Tel No: +91 22 25151763

Fax No: +91 22 25150957

College is recognized under Section 2(f) & 12(B) of the UGC Act, 1956

Affiliated to UNIVERSITY OF MUMBAI || NAAC Re-Accredited 'A' Grade (CGPA: 3.50)

15/05/2021

NOTICE

All students are hereby informed that the Department of Zoology is offering a value added course of 30 hours duration , 2 credits entitled " BASICS OF CONCHOLOGY" . The course will commence from 18th May, 2021 and will be online. It includes sessions, assignment, virtual field trip to sea shore and evaluation. Course details are available in the attached brochure. Attendance for every session and timely submission of assignment are essential for a student to avail a course completion certificate and two credits for the same.

HOD ZOOLOGY



PRINCIPAL
RAMNIRANJAN JHUNJHUNWALA COLLEGE
OF ARTS, SCIENCE & COMMERCE (AUTONOMOUS)
Ghatkopar (W), Mumbai-400 086, Maharashtra, INDIA

2019: Star College Status by DBT

2008: Best College by University of Mumbai 2010: IMC RBNQ Award 'Performance Excellence' for the year 2009

2011: 'Best Teacher Award' by Government of Maharashtra 2013: DST-FIST 2014: DBT STAR College

2013 & 2014: 'Jagar Jaanivancha Award' by Govt. of Maharashtra 2016: ISO 14001:2015 2016: ISO 9001:2015 2017: ISO 27001:2013

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Department of Zoology VALUE-ADDED COURSE- 2020-21

Name of the Course: BASICS OF CONCHOLOGY

Course Code: RJZOOC01

Course Credits: 02

Course Duration: 1 week (6 days/30 hrs) Conducted from 18th May to 23rd May 2021.

Mode: Online on Zoom Platform

Course In-charge: Prof. Deepak Poojary, Field Tour: Prof. Sagar Gavas

Course Structure: 2 hrs/day online lectures.

- Assignments based on the lecture
- Virtual Field visit
- Evaluative test

Course Objectives:

1. To teach identification of molluscan shells.
2. To create interest in field and taxonomic studies.

Course Outcomes:

1. The learner will be able to identify different types of shells.
2. The learner will get information on the taxonomy of shells.
3. The learner will be able to work as field guide on sea shore trips.
4. The learner will be able to identify aesthetic, medicinal and economic value of shells.

Evaluation scheme:

4 assignments of 10 mks each (4X10=40 mks)

Field report: 20 mks

MCQ based test: 30 mks

Student attendance and participation: 10 marks

Head, Department of Zoology



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Course Syllabus

Day & Date	Lecture Topic and Time	Evaluation strategy & student engagement
Tuesday 18.05.2021	Introduction to marine topography & shore morphology <i>10.00am-12.00pm = 2hrs</i>	Assignment 1: 3hrs
Wednesday 19.05.2021	Gastropod shells and shell types with selective families & Practical observation <i>10.00am-12.00pm = 2hrs</i>	Additional reading of research articles & Assignment 2: 3 hrs
Thursday 20.05.2021	Bivalve shells and shell types with selective families & Practical observation <i>10.00am-12.00pm = 2hrs</i>	Additional reading of research articles & Assignment 3: 3 hrs
Friday 21.05.2021	Study of rare & endangered shells and Techniques of shell preservation <i>10.00am-12.00pm = 2hrs</i>	Assignment 4: 3 hrs
Saturday 22.05.2021	Documentary screening <i>10.00- 11.00 am= 1 hr</i> Virtual field visit <ul style="list-style-type: none"> • Dadar shore • College museum <i>11.00am-12.30pm= 1 ½ hr</i>	Review writing: 2 hrs Referencing and Report writing on Field visit: 3 hrs
Sunday 23.05.2021	Aesthetic & Cultural significance of shells Shell myths <i>10.00- 12.00 pm= 2hrs</i>	Preparation time for test & MCQ test: 3 hrs
Total duration	Lectures: 10 ½ hrs	Additional readings, assignments & Continuous Evaluation: 20 hrs


Head, Department of Zoology




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VIRTUAL FIELD TRIP -DADAR SEA SHORE-22/05/2021



Resource Person Mr Sagar Gavas



Shell Diversity



Sesai

Head Dept. of Zoology

1/Principal
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Department of Zoology

EVENT : VIRTUAL FIELD TRIP

INCHARGE : Mr. Sagar Gavas (on the field expert)

DAY AND DATE: Saturday, 22 nd May,2021

TIME: 10.00am onwards

VIRTUAL FIELD VISIT LOCATION: Dadar Seashore

ONLINE PLATFORM: ZOOM

NO. OF BENEFICIARIES: 57 Students.

BRIEF REPORT:

A virtual field trip was organized by the department of Zoology. Mr. Sagar Gavas, lecturer, visited the Dadar Seashore in person. He connected with the students via online Zoom platform. He showed the students the characteristic of the shore and showed the animals present on the shore. The students could understand the difference between sandy , rocky and muddy shore. On this virtual tour he showed the students different shells scattered along the sandy shore. It was a unique experience for the students to not only visit the shore virtually but also to identify impromptu the shells found therein.

Head, Department of Zoology.



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NOTICE FOR S.Y.B.Sc ZOOLOGY STUDENTS

2020-21

Field trips are an essential part of the Zoology curriculum. Keeping this in mind, the department of Zoology have organised a virtual field trip for students of S.Y.B.Sc to Dadar seashore to study the different shore types. The fauna and shell diversity found along the shore shall be explored. Mr. Sagar Gavas, faculty, Department of Zoology shall be resource person for this trip.

To experience the virtual visit to the shore, interested students can log in to Zoom platform. The details are given below;

Date: 22/05/2021

Day: Saturday

Time: 11.30 am

Zoom meeting ID: 6999 564 174

Passcode: zoology

Sesai

HOD of Zoology



[Signature]
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Snap Shot of Value Added Course Basics of Conchology RZ0OC01



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Ghatkopar (W), Mumbai-400 086, Maharashtra, INDIA

Name:- Brijesh Chaudhary

Roll No:- 604/C

Date 23/05/21
Page 01

DBT STAR DEPARTMENT ZOOLOGY, VALUE-ADDED COURSE

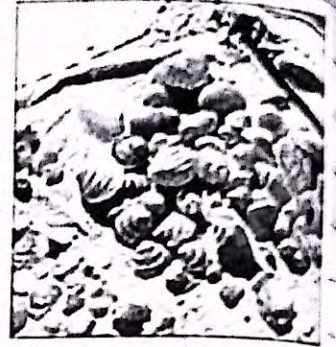
BASICS OF CONCHOLOGY

Report and Review, Duration 6 hrs
Marks - 20

a) Review Writing

Documentary shown 'The shell story'

(<https://www.youtube.com/watch?v=2sQdMxyAkjY>)



Write a review of this documentary in about 100-150 words.

(Key points to be included - shell industry & business, processing, over exploitation of shells, legal framework and your views on sustainability in this industry).

Ans:- The mollusc shell is typically a calcareous exoskeleton which encloses, supports and protects the soft parts of an animal in phylum Mollusca, which includes snails, clams, turk shell and several other shell classes.

Not all shelled molluscs lives in the sea many live on the land and in freshwater.

Shell Industry & business:-

In Kanyakumari and Tamilnadu a variety of Handicraft can be seen which act as cottage industry colourful shell crafted in mirror.

Industry provide employment to the women and allows them to work from home. Machines are used to design.

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Processing

Where ever there is fishing, shells are found there. Every place has its different varieties of shells.

In South India In Tamil Nadu - in Rameshwaram, Kelakari, Trichundur, Tuticorun, Cuddalore, Chennai, Kanyakumari shell are found.

The people carry them in Godowns via lorries. They get these raw material from Kakinada (AP) & Cuddalore (TN). They keep them in homes / godowns and then they wash it with Acid, bleach and Sundry them. The cleaned raw material is given to the housewives nearby to prepare Mala. Then storage is done, and as per demand they sell it to Vendors including shops in Kanyakumari.

The items are sold in Holy places and Tourist places.



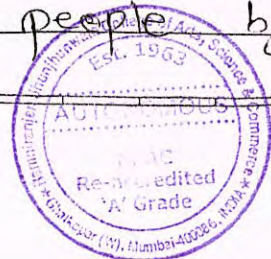
Over exploitation of shells:-

→ There are many varieties of shells. And every one has its own choice about their likes. So shopkeeper keep many varieties of shells even it is not found in that shore.

- The product can be made from shells are - Toran, Mala, Dwargate, bangles, etc. which requires huge number of shell to make.
- These are products which can be kept for long time, so there is less chances to breaks. hence people buy them as gift.

Suvar

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- Tamilnadu is famous for collection of only varieties of Chanks, they stored and sent to Kolkata and other parts of India.
 - In Kolkata people buy bangles which is made up of shells. As per belief God Shankar made Goddess Durga to wear a bangle of chanks since then all married women wear the shakha (bangles)
- Scientific reason behind it is that it maintains calcium level of women at some level and also keeps mind calm.
- It is believed that in every home there should be one chank. but people keep more than one also.

All above reason cause over exploitation of shells.



Legal Framework

Some shells we can buy legally but rare and endangered species. photographs are kept on shores to awareness among people.

Firstly, only a limited number of seashell species are protected under India's Wildlife Protection Act, 1972. Just 24 of almost 3500 species of marine mollusc (soft-bodied animals that remain enclosed in their shells) found in India are legally protected from exploitation and illegal trade.

Usar

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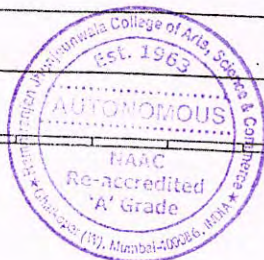


My views on sustainability in shell Industry:-

- 1) According to me, the people who are embaded / associated with shell Industry need a watch of Government.
- 2) As in North there are farmers who are associated with crops but in south there is unable to reap crop because of its area near to sea. So there is mainly for people to do business related to fishery or shells.
- 3) As there is a huge variety of shell and fishes if these are not kept in limited number they cause problems to human. So its need to be in such number which is suitable for humanity.
- 4) Mollusca shells are generally found in shallow areas and in coral reef they play a crucial role in the ecosystem as a food, scavengers, burrowers which helps in nutrient cycling in maintaining the ecological balance.
- 5) Some Rare and endangered species are kept there, should increase their number by culture if possible.

Jesai

MOD of Zoology



b) Report Writing

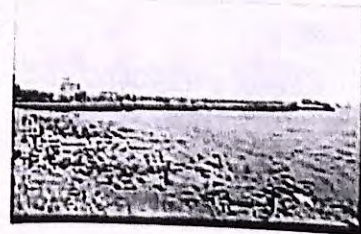
Based on the virtual field visit prepare a report of 100-150 words. The visit will include both the shores as well as college museum.

(Key points to be included- location of shore, type of shore, kinds of shell observed, impact of human activities on shore. for college museum - name some of the shells that were observed.)

Ans:- Our virtual field visit was held on 22nd May 2020 / Saturday.

- We virtually visited Dadar Chembatty Beach, Mumbai. (with Sagar sir)
- We also visited a Winter shelling on (Navarre Beach) (outside india) by Deepak Sir.
- Bindu Mam also present online / virtually in both shores.
- Then we visited virtually in our College with the help of (Ahide Sir).

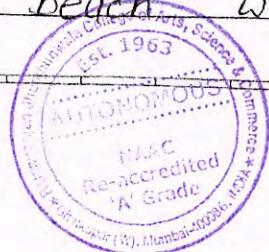
1) Virtual Visit at Dadar Beach



We visited virtually at this beach with Sagar Sir, at the beach we saw many

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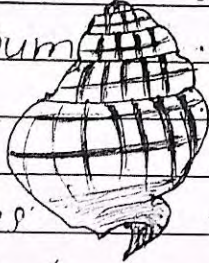
varieties of Gastropods shell and Bivalve shell.

- Location: Dadar Chowpatty Beach, Mumbai 400028.
- Type of shore: Sandy shore.
- Kinds of shell observed: Many varieties of Gastropods and bivalves.

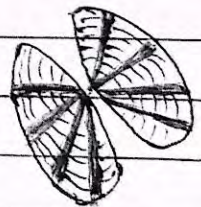
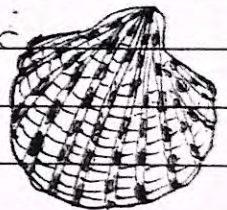
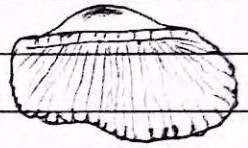
Gastropods

Bivalves

- *Bebylonia spirata*
- *Cantharus spiralis*
- *Succinea Javanica*
- *Thyas carnifera*
- *Natica didyma*
- *Umbonium Vestiarium*
- *Turbo brunneus*
- *Nassarius nodifera*
- *Potamides Cingulatus*
- *Monetaria moneta*
- *Buxa tuberculata*
- *Tonna dolium*



- *Arca granosa*
- *Arca bistrigata*
- *Perna viridis*
- *Placenta Placenta*
- *Caxidita antiquata*
- *Meretrix meretrix*
- *Katelysia Opima*
- *Paphia Textile*
- *Denax scaetum*
- *Solen sps (Razor clam)*
- *Siliqua radiata*

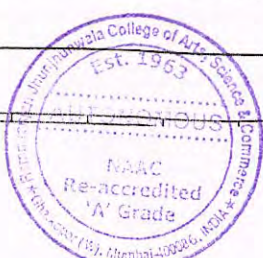


- Human activities on shore:
- The usual activities such as drinking alcohol, throwing waste had caused immense harm to the place. So new people/govt. decided to clean & save beach.
- The 35 km-long road along Mumbai's western coast threatens the beaches in Mumbai - Girgaum Chowpatty, Dadar Chowpatty.



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2) Virtual Visit at Winter shelling on Navarre Beach (by deepak sir)



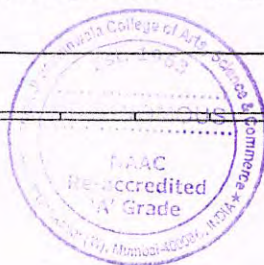
- Location:- Santa Rosa County in Florida Panhandle.
- Type of shore:- Sandy shore
- Kinds of shell observed:- Many varieties of Gastropods and bivalve shells are found here.
- Common American Auger
- Scotch Bonnet
- Shark Eye
- Lightning Whelk
- Tulip shell
- Coquina clam
- Dosina
- Scallop
- Giant Cockle



• Human activities on shore:-

- The beach was not crowded but have lot of shopping and water park.
- Human activity remains the single greatest threat to sea 'turtle' survival.
- Cigarette pieces, hand band as pollution.

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3) Virtual Visit at Our (R.J.) College (in Zoo Lab)

We visited our college with the help of our college lab - assistance (Ahire Sir) and (Deepak Sir).

- Location:- R.J college ghatkopar (W) Mumbai.
- Type of section visited:- Zoology museum/lab section

• Kinds of shell observed:- Our college have around all kinds of shell from everywhere around India by our great Teachers.

→ We observed many kinds of shell given below.

→ Spider conch

Tona

Strombus

→ Zonchus (Original)

→ Tibia Costa

Turbo

→ Conus

sea star

→ murex

Strombus

Ziant Clam

Chikorus

Common scorpion

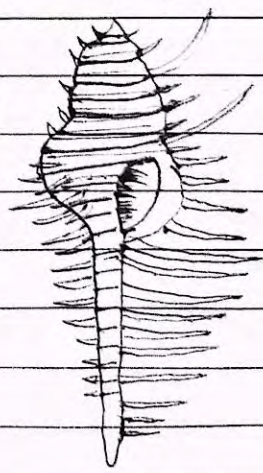
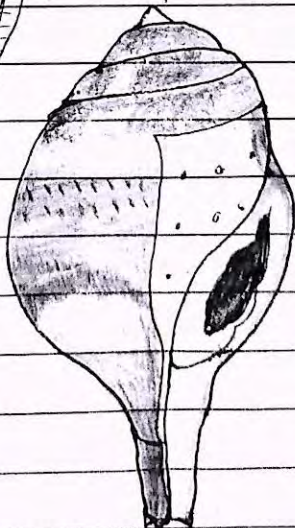
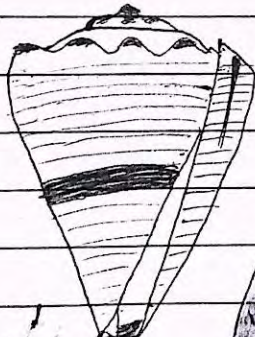
Nautilus, Pecten

Zinophora Solaris

Deer cowrie

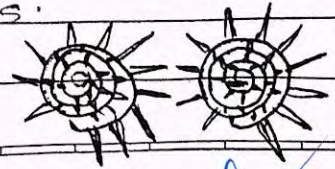
&

→ Shell Chart covers around all types of family of shells.



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AY 2021 Onwards

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

Knowledge is all Ambrosia

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Mumbai 400 086, Maharashtra, INDIA.



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: **RJZOOC01**

Duration: **30** hours

Credits : **02**

COURSE OUTCOME

1. The learner will be able to identify different types of shells.
2. The learner will get information on taxonomy of shells.
3. The learner will be able to work as field guide on sea shore trips.
4. The learner will be able to identify aesthetic, medicinal and economic value of shells.





COURSE OBJECTIVE

1. To teach identification of molluscan shells.
2. To create interest for field and taxonomic studies.

COURSE CONTENT

Module	Content	Evaluation strategies
I	<ul style="list-style-type: none"> • Introduction to division of marine ecosystem, shore morphology and types, Factors affecting the shore ecosystem. • General introduction and classification of phylum Mollusca 	Assignment
II	<ul style="list-style-type: none"> • Morphology of gastropod shell, • Variations and ornamentation of shell. • Study of few shell families and specimens of gastropods 	Practical observation and assignment
III	<ul style="list-style-type: none"> • Morphology of bivalve shell, • Variations and ornamentation of shell. • Study of few shell families and specimens of bivalves 	Practical observation and assignment
IV	<ul style="list-style-type: none"> • Study of some rare and endangered shells, Insight on shell collection, preservation and setting up shell museum. 	Assignment
V	<ul style="list-style-type: none"> • Virtual field visit 	Submission of report
VI	<ul style="list-style-type: none"> • General coastal shell diversity of India. • Overview of shells in global history. • Medicinal, economy, cultural and aesthetic value of shells. • Myths and stories on shells 	Test and final evaluation



EVALUATION



4 assignments of 10 M each	:	4 X 10= 40 M
Field report	:	20 M
MCQ based test	:	30 M
Student attendance and participation	:	10 M
Total	:	100 M

English

MEDIUM OF INSTRUCTION

100 MARKS**PASSING 40**

WHO SHOULD DO

Course is open for any student from life-sciences.

IT?



Hindi Vidya Prachar Samiti's

**RAMNIRANJAN JHUNJHUNWALA COLLEGE of Arts, Science & Commerce
(AUTONOMOUS)**

Opposite Durgam Railway Station, Dalgatop FWO, Srinagar-190 006.

Certificate of Completion

This is to certify that

Aarjita Bhanadwarj

of Class **S.Y.B.Sc** Roll No. **601**

has successfully completed the Value-Added Course in **BASICS OF CONCHOLOGY**

organized by Department of **ZOOLOGY** and conducted from **18 May, 2021 to 23 May, 2021.**

COURSE CODE
BJZOC01

Issue Date: 13 July, 2021

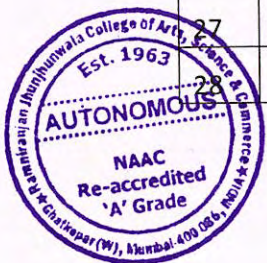



Dr. Himanshu Dawda
In-charge Principal

CERTIFICATE ID: BJC-VAC-202021-00967

**STUDENT COMPLETED Certificate
Course in Basics of Conchology YEAR
20-21**

SR NO	NAME	ROLL NO	CLASS
1	Anjita Bharadwaj	601	S.Y.B.Sc
2	Anmol Bhagat	602	S.Y.B.Sc
3	Nikhat Parveen Ansari	603	S.Y.B.Sc
4	Brijesh Kumar Chaudhary	604	S.Y.B.Sc
5	Zain Dabir	605	S.Y.B.Sc
6	Babita Darvesh	606	S.Y.B.Sc
7	Om Gangnaik	609	S.Y.B.Sc
8	Kajal Gupta	610	S.Y.B.Sc
9	Ritu Gupta	611	S.Y.B.Sc
10	Jiyafatima Khan	614	S.Y.B.Sc
11	Simran Kaithwas	615	S.Y.B.Sc
12	AASMA KHAN	619	S.Y.B.Sc
13	Mohammed Irshad Khan	621	S.Y.B.Sc
14	Mohammed Alam Khan	622	S.Y.B.Sc
15	Tausif Khan	623	S.Y.B.Sc
16	Muskan Khan	624	S.Y.B.Sc
17	Seema Khan	628	S.Y.B.Sc
18	Krishnamoni Kalita	631	S.Y.B.Sc
19	Aakash Mahapatra	632	S.Y.B.Sc
20	Preeti Nehate	637	S.Y.B.Sc
21	ANMOL PANDEY	638	S.Y.B.Sc
22	Shubham Singh Rawat	645	S.Y.B.Sc
23	Dakshina sanas	647	S.Y.B.Sc
24	Saniya Khan	648	S.Y.B.Sc
25	Anam Shaikh	650	S.Y.B.Sc
26	Shakira Shaikh	652	S.Y.B.Sc
27	Shweta Shukla	658	S.Y.B.Sc
28	Aaina Singh	659	S.Y.B.Sc



I/c **PRINCIPAL**
RAMNIRANJAN JHUNJHUNWALA COLLEGE
OF ARTS, SCIENCE & COMMERCE (AUTONOMOUS)
Ghatkopar (W), Mumbai-400 086, Maharashtra, INDIA

29	Akanksha Singh	660	S.Y.B.Sc
30	Manasi Singh	663	S.Y.B.Sc
31	Neha Sonkar	667	S.Y.B.Sc
32	Sufiya khatoon	668	S.Y.B.Sc
33	Ansh Vishwakarma	670	S.Y.B.Sc
34	Anubha Yadav	672	S.Y.B.Sc
35	Pooja Yadav	674	S.Y.B.Sc
36	Aditi Majrekar	684	S.Y.B.Sc
37	Alok Tiwari	691	S.Y.B.Sc
38	Shivani Waykar	692	S.Y.B.Sc
39	Fatima Ansari	695	S.Y.B.Sc
40	Reetesh Chaturvedi	702	S.Y.B.Sc
41	Lavesh Dalvi	705	S.Y.B.Sc
42	Bhagwati Dewasi	706	S.Y.B.Sc
43	Jyoti Gound	708	S.Y.B.Sc
44	Komal Gupta	709	S.Y.B.Sc
45	Kusum Gupta	710	S.Y.B.Sc
46	Sanjana Gupta	713	S.Y.B.Sc
47	Asma Khan	717	S.Y.B.Sc
48	Azram Khan	718	S.Y.B.Sc
49	Uzma Khan	720	S.Y.B.Sc
50	Arshiya Shaikh	726	S.Y.B.Sc
51	Muskan Shaikh	727	S.Y.B.Sc
52	Shaikh Umme eaman	729	S.Y.B.Sc
53	Priyanka Singh	731	S.Y.B.Sc
54	Anjali Yadav	736	S.Y.B.Sc
55	Lakshmina Yadav	737	S.Y.B.Sc
56	Suraiya Khan	739	S.Y.B.Sc
57	Pooja Singh	746	S.Y.B.Sc




 I/c PRINCIPAL
 RAMNIRANJAN JHUNJHUNWALA COLLEGE
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 Ghatkoper (W), Mumbai-400 086, Maharashtra, INDIA