To

The Principal,
Smt Radhabai Sarda Arts, Commerce &
Science College, Anjangaon Surji

Subject: Permission for conducting Add_on Course entitled "PC Hardware and Networking" for the session 2018-2019

Hon'ble Sir,

      With reference to the above subject, we kindly request you to grant us permission for conducting the said course in the department of Computer Science. The duration of the course will be 30 hours (2 hours X 15 working days). The syllabus of the course is enclosed herewith this letter for your kind consideration. The course will be helpful to our students in view point of their development towards hardware and networking engineer.

Date: 01/09/2018

Place: Anjangaon Surji

Head, Department of Computer sci,
H O D
Computer Science
Smt.R.S.College,Anjangaon

Enclosures:

1. Syllabus of Add-on Course

PC Hardware & Networking

Course Duration: 30 Hours

ALLOCATION OF TOTAL HOURS FOR EACH CHAPTER

| Sr No	Chapter	Theory in Hours	Practical in Hours
1.	Introduction about computer	1	1
2.	Basic Networking concepts	2	2
3.	Introduction to various networking devices	2	2
4.	Inside the PC	2	2
5.	Network basic and configuration	3	3
6.	Introduction to servers and network security	5	5
	Total - 30 Hours	15	15

Jobs/Careers: Hardware engineer, Technical Support and Own business of Hardware and software installation.

Syllabus:

- Introduction about Computer:
    - Basics of computer
    - Organization of computer.
    - Software and hardware.
    - Input/output devices.

- Basic networking concepts:
    - Network topologies:
        - LAN, WAN, MAN, PAN, CAN.
    - Networking Model
        - The OSI model
        - TCP/ IP Model
    - Network adapters.
    - Introducing protocols.
    - Cabling and troubleshooting.

- Introduction to various networking devices:

- Routers.
- Switches.
- Modems.
- Hubs etc.
- Wired and Wireless technology.

- Inside the PC:

  - Opening the PC and identification.
  - Study of different blocks,
  - Assembling and disassembling.

- Network basic and configuration:
  - Setting IP addresses,
  - Sharing files and folders.
  - Network troubleshooting.
  - PING test, ipconfig etc.

- Introduction to servers and network security:
  - Types of servers:
    - Files servers,
    - Email Servers,
    - Proxy servers etc.
  - Basics of Internet and Intranet:
  - Types of Internet connections:
    - Dialup, Broadband, Leased Line, Wi-Fi, Wi-Max, 2G, 3G, 4G, WWW, E-mails, Search Engines, Social Networking.
    - Cloud application.
    - Audio-video Conferencing.

  - Recovery and backup.

  - Essential security measures.

References: 1. Introduction to computer by P.K. Sinha.
2. Computer Hardware and Networking by Vishnu P Singh.
3. CCNA Routing and Switching Complete Study Guide: by Todd Lammle.
4. Introduction to Computer Networks and Cyber security by Chwan-Hwa Wu , J. David Irwin.
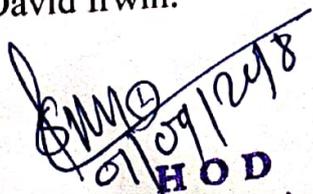
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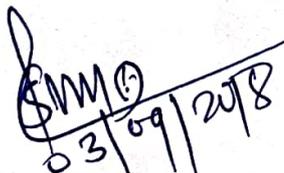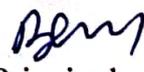
Department of Computer Science

NOTICE

Date: 3rd September 2018

All the students of BSc-I, II are hereby informed that the Department of Computer science is going to start an *Add-on Course of PC Hardware and Networking* from 10th September to 28th September 2018. Students, who are interested to participate in the said course, can confirm their admission on or before 08 September 2018.

Head of Department
H O D
Computer Science
Smt.R.S.College,Anjangaon

Principal
Principal
Smt. Radhabai Sarda College
of Arts. Commerce & Science
Anjangaon Surji

Smt Radhabai Sarda Arts, Commerce and Science College Anjagaon Surji

Department Of Computer Science

Add-on Course

PC Hardware and Networking

TIME TABLE

(2018-19)

SN	DATE	TIME	TOPIC
1	10 Sept 2018	10 AM to 11:30 AM	Inauguration
2	11 Sept 2018	09 AM to 11 AM	Chapter I
3	12-13 Sept 2018	09 AM to 11 AM	Chapter II
4	14-15 Sept 2018	09 AM to 11 AM	Chapter III
5	17-18 Sept 2018	09 AM to 11 AM	Chapter IV
6	19-21 Sept 2018	09 AM to 11 AM	Chapter V
7	22-27 Sept 2018	09 AM to 11 AM	Chapter VI
8	28 Sept 2018	09 AM to 11 AM	Exam
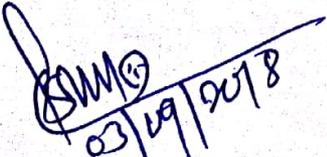
H.O.D

H O D
Computer Science
Smt.R.S.College,Anjangaon

Principal
Principal
Smt. Radhabai Sarda College
of Arts. Commerce & Science
Anjangaon Surji

List of Enrolled students for Add-on Course

"PC Hardware & Networking"

Sr. No.	NAME OF THE STUDENT	CLASS	ENROLL NO.	MOBILE
1	RUSHIKESH N. REKHATE	BSc I		9503900474
2	ANAND D. DHAGE	BSc I		7888220511
3	ABHIJIT R. KHADE	BSc I		7745075083
4	KU VISHAKHA S. PAYGHAN	BSc I	18114678	9545822116
5	KU DHANASHREE S. TEWARE	BSc I	18114665	9011197006
6	PRAJWAL S. WAGHAMARE	BSc I		9075982890
7	KU MANALI J. PATEL	BSc I	18114668	9011752063
8	KU SAMIKSHA A. PISOLKAR	BSc I	18114675	9011020790
9	GAJANAN D. RAUT	BSc I		9730824450
10	KU PRANAVI S. MANEKAR	BSc I	18114673	9511975704
11	KU GAURI S. CHENDKE	BSc I		9371247110
12	KU GAYATRI D. PATIL	BSc I	18114671	7721023216
13	HRUSHIKESH M. KALE	BSc I		8459072865
14	KU PAYAL M. JAROLE	BSc I		9960220489
15	KU KAJAL D. AFARE	BSc I		9922515825
16	KU RUTIKA S. THORAT	BSc I		9763332544
17	KU SANSKRUTI R. HATEKAR	BSc I	18114679	9503535056
18	AJINKYA V. CHIKATE	BSc I		9527439546
19	SAURABH S. GUJAR	BSc II		8459468955
20	KU MOHINI A. SHIRBHATE	BSc II		9860149483
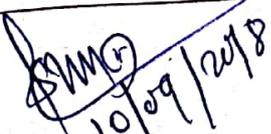
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Smt.R.S.College,Anjangaon

Principal
Principal
Smt. Radhabai Sarda College
of Arts. Commerce & Science
Anjangaon Surji

Date: 28/09/2018   **Max Marks: 50**

Time: 2:00 Hrs.

Instructions:

(1) All questions are compulsory.

(2) Answer each next main question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data if necessary.

(6) Use of Non-programmable Electronic Pocket Calculator is permissible.

(7) Mobile Phone, Page and any other Electronic Communication devices are not permissible in examination hall.

1. **(a) Attempt any TWO of following :**   **[12]**

(i) Draw and explain working of laser printer.

(ii) State the function of:

  (1) Hubs   (2) Switches   (3) Routers   (4) Bridges

(iii) State four functions of BIOS.

(iv) Compare between offline and online UPS

(b) Attempt any ONE:

(i) Compare between OSI/TCP/IP reference models.   **[6]**

(ii) What is cache memory? Explain its different types with diagram

2. **Attempt any THREE of the following:**   **[16]**

(a) Explain working of flatbed scanner with block diagram.

(b) State two problems related to hard disk with their symptoms. State preventive maintenance measures for hard disk.

(d) Describe IP Address classes with suitable examples. W-16

(e) Compare between TCP and UDP. (4 points) S-17

3. **Attempt any TWO of the following:**   **[16]**

(a) Draw a neat sketch and describe the construction of CDROM.

(b) State the pin description of various pins in RS 232 serial interface.

(c) What is network topology? Explain various network topology used in computer network.

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Smt Radhabai Sarda Arts, Commerce & Science College, Anjangaon Surji
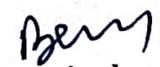### Department of Computer Science
Result of Add-on Course
PC Hardware and Networking

SN	NAME OF STUDENT	OUT OF 50	MARKS OBTAINED
1	RUSHIKESH N. REKHATE	50	45
2	ANAND D. DHAGE	50	42
3	ABHIJIT R. KHADE	50	44
4	KU VISHAKHA S. PAYGHAN	50	46
5	KU DHANASHREE S. TEWARE	50	45
6	PRAJWAL S. WAGHAMARE	50	44
7	KU MANALI J. PATEL	50	42
8	KU SAMIKSHA A. PISOLKAR	50	46
9	GAJANAN D. RAUT	50	40
10	KU PRANAVI S. MANEKAR	50	48
11	KU GAURI S. CHENDKE	50	40
12	KU GAYATRI D. PATIL	50	42
13	HRUSHIKESH M. KALE	50	44
14	KU PAYAL M. JAROLE	50	42
15	KU KAJAL D. AFARE	50	40
16	KU RUTIKA S. THORAT	50	40
17	KU SANSKRUTI R. HATEKAR	50	44
18	AJINKYA V. CHIKATE	50	40
19	SAURABH S. GUJAR	50	44
20	KU MOHINI A. SHIRBHATE	50	45

Head of the Department
HOD
Computer Science
Smt.R.S.College,Anjangaon

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of Arts. Commerce & Science
Anjangaon Surji

SHRI. SARDA EDUCATION SOCIETY'S

SMT. RADHABAI SARDA ARTS, COMMERCE AND SCIENCE COLLEGE

ANJANGOAN SURJI, DIST. AMRAVATI

Certificate

This is to certify that _____ of _____

has successfully completed Add-on Course entitled "**PC Hardware and Networking**" conducted by the Department of Computer Science from 10/09/2018 to 28/09/2018 at Smt. Radhabai Sarda Arts, Commerce & Science College, Anjangoan Surji, Dist. Amravati.

Head of the Department
H O D
Computer Science
Smt.R.S.College,Anjangaon

Principal
Principal
Smt. Radhabai Sarda College
of Arts, Commerce & Science
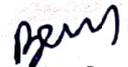Anjangaon S 🕀

Summary Report & Course Outcome

The department of Computer science had undertaken the Add-on course **"PC Hardware & Networking"** during the session 2018-2019. The course was of 30 hours duration in which 20 students had taken admission. All these students have completed the course successfully.

The outcome of this course is as follows:-

Students will able to:

- To make career as Hardware engineer.

- Explain the functions of Application layer and Presentation layer paradigms and Protocols.

- Describe the Session layer design issues and Transport layer services.

- Classify the routing protocols and analyze how to assign the IP addresses for the given network.

- Describe the functions of data link layer and explain the protocols.

- Explain the types of transmission media with real time applications

- Explain the basic concepts of wireless network and wireless generations.

- Demonstrate the different wireless technologies such as CDMA, GSM, GPRS etc.

- Appraise the importance of Adhoc networks such as MANET and VANET and Wireless Sensor networks.

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Smt Radhabai Sarda Arts, Commerce & Science College
Anjangaon Surji, Dist Amravati - 444705

Application Form for Course Work

(Academic Session: 2018-2019)

Application Form No.: **000227**

Applicant's Name : Abhijit Ramesh Khade

Father's Name: Ramesh V. Khade

Permanent Address: At·Post· Adgaon Khade Tq.
Anjangaon Surji Dist· Amaavati

District: Amravati **State:** Maharashtra **Pin Code:** 444705

Email ID: abhijitkhade65@gmail.com

Phone No./Mobile No.: 7 7 4 5 0 7 5 0 8 3

Gender: Male ✓ Female ☐

Date of Birth: 28 / 04 / 2000

Aadhaar Card No. 6 0 9 7 5 4 8 7 3 3 2 0

Name of the Department: Computer science

Class: BSC-I **Section:** science

Course Applied For: Value Added/Certificate/Bridge Course/Add-on Program

Date of Admission in College: _____

ID Number: _____

Category: OPEN ☐ OBC ✓ SC ☐ ST ☐ NT ☐ VJ ☐ SBC ☐

Languages Known: Marathi ✓ Hindi ✓ English ✓

Title of the Course: "PC Hardware and Networking"

N.B.: I Certify that the information I have given in this application is complete and correct. I am aware that false information grounds for expulsion.

Khade
Applicant's Signature

Shri Sarda Education Society's
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Smt Radhabai Sarda Arts, Commerce & Science College
Anjangaon Surji, Dist Amravati - 444705

Application Form for Course Work

(Academic Session: 2018-2019)

Application Form No.: 000228

Applicant's Name : Vishakha Shankaerao Payghan

Father's Name: Shankaerao P. Payghan

Permanent Address: Baegunpura Anjangaon Surji

District: Amaravti **State:** Maharashtra **Pin Code:** 444705

Email ID: Vishakhapay@gmail.com

Phone No./Mobile No.: 9 5 4 5 8 2 2 1 1 6

Gender: Male [ ] Female [✓]

Date of Birth: 9 / 7 / 2000

Aadhaar Card No. 2 4 8 9 2 6 3 7 2 9 9 9

Name of the Department: Computer Science

Class: Bsc Ist C **Section:** Science

Course Applied For: Value Added/Certificate/Bridge Course/Add-on Program

Date of Admission in College: _____

ID Number: 5430

Category: OPEN [ ] OBC [✓] SC [ ] ST [ ] NT [ ] VJ [ ] SBC [ ]

Languages Known: Marathi [✓] Hindi [✓] English [✓]

Title of the Course: " PC Hardware and Networking "

N.B.: *I Certify that the information I have given in this application is complete and correct. I am aware that false information grounds for expulsion.*

Applicant's Signature

Smt Radhabai Sarda Arts, Commerce & Science College
Anjangaon Surji, Dist Amravati - 444705

Application Form for Course Work

(Academic Session: 2018-2019)

Application Form No.: 000234

Applicant's Name : KU. PRANAVI SANJAYRAO MANEKAR

Father's Name: Sanjay Namdevrao Manekar

Permanent Address: Yayati Nagar Pathrot.
Tq. Achalpur Dist Amaravati

District: Amaravati **State:** Maharastra **Pin Code:** 444808

Email ID: pranavimanekar109@gmail.com

Phone No./Mobile No.: 9 3 7 0 7 4 6 2 7 4

Gender: Male [ ] Female [✓]

Date of Birth: 10 / 09 / 2000

Aadhaar Card No. 3 4 7 4 7 5 9 7 1 0 5 3

Name of the Department: Computer Science

Class: BSc 1st Year **Section:** Science

Course Applied For: Value Added/Certificate/Bridge Course/Add-on Program

Date of Admission in College: 30 / 06 / 2018

ID Number: 5925

Category: OPEN [ ] OBC [✓] SC [ ] ST [ ] NT [ ] VJ [ ] SBC [ ]

Languages Known: Marathi [✓] Hindi [✓] English [✓]

Title of the Course: PC Hardware and Networking

N.B.: *I Certify that the information I have given in this application is complete and correct. I am aware that false information grounds for expulsion.*

Applicant's Signature

Smt Radhabai Sarda Arts, Commerce & Science College
Anjangaon Surji, Dist Amravati - 444705

Application Form for Course Work

(Academic Session: 2018-2019)

Application Form No.: 000239

Applicant's Name : Ku. Kajal Dinesh Afune

Father's Name: Dinesh Vishvnath Afune

Permanent Address: Balaji Plot, Kathi Pura. Anjangaon Surji

District: Amravti   **State:** Maharashtra   **Pin Code:** 444705

Email ID: Kajalafune 123 @ gmail . com

Phone No./Mobile No.: 8 5 3 0 2 0 5 2 0 9

Gender: Male [ ]   Female [✓]

Date of Birth: 25 / 12 / 2000

Aadhaar Card No. 4 4 0 6 2 9 1 9 3 8 9 1

Name of the Department: Computer science

Class: Bsc 1st year   **Section:** science I

Course Applied For: Value Added/Certificate/Bridge Course/Add-on Program

Date of Admission in College: 01 /08 /2018

ID Number: 6613

Category: OPEN [ ]   OBC [✓]   SC [ ]   ST [ ]   NT [ ]   VJ [ ]   SBC [ ]

Languages Known: Marathi [✓]   Hindi [✓]   English [✓]

Title of the Course: PC Hardware and networking.

N.B.: *I Certify that the information I have given in this application is complete and correct. I am aware that false information grounds for expulsion.*

Afune

Applicant's Signature

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Smt Radhabai Sarda Arts, Commerce & Science College, Anjangaon Surji

(A Linguistic Minority Institution)

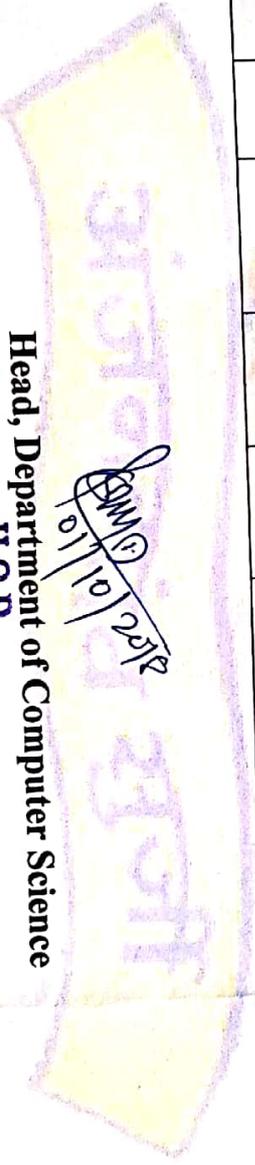## Department of Computer Science

Add-on Course

(Academic Session: 2018-2019)

Attendance Sheet

Title of the Course: PC Hardware & Networking

Sr. No	Name of participants	ID No.	Class	Theory (Practical) Signature (date-wise) Sep-2018							
				11/09/18	11/09/18	12/09	12/09	13/09	13/09	14/09	14/09	15/09	15/09
1	RUSHIKESH N. REKHATE		BSc I	Rekhate	Rekhate	Rekhate	Rekhate	Rekhate	Rekhate	Rekhate	Rekhate
2	ANAND DNYANESHWAR DHAGE		BSc I	Dhage	Dhage	Dhage	Dhage	Dhage	Dhage	Dhage	Dhage
3	ABHIJIT RAMESH KADE		BSc I	Bhade	Bhade	Bhade	Bhade	Bhade	Bhade	Bhade	Bhade
4	VISHAKHA S. PAYGHAN		BSc-I	V.S.Payghan	V.S.Payghan	V.S.Payghan	V.S.Payghan	V.S.Payghan	V.S.Payghan	V.S.Payghan	V.S.Payghan
5	DHANSHREE S. TEWARE		BSc-I	S.Teware	S.Teware	S.Teware	S.Teware	S.Teware	S.Teware	S.Teware	S.Teware
6	PRAJWAL S. WAGHMARE		BSc I	Po	Po	Po	Po	Po	Po	Po	Po
7	MANALI J. PATEL		BSc I	M.Patel	M.Patel	M.Patel	M.Patel	M.Patel	M.Patel	M.Patel	M.Patel
8	SAMIKSHA A. PISOLKAR		BSc-I	Pisolkar	Pisolkar	Pisolkar	Pisolkar	Pisolkar	Pisolkar	Pisolkar	Pisolkar

No.	Name	Class	Signatures
9	GAJANAN D. RAUT	BSC-I	Gajanan Gajanan Gajanan Gajanan Gajanan Gajanan Gajanan Rout
10	PRANAVI S. MANEKAR	BSC-I	Atul Atul Atul Atul Atul Atul Atul
11	GAURI S. CHENDKE	BSC-I	Ghode Ghode Ghode Ghode Ghode Ghode Ghode
12	GAYATRI D. PATIL	BSC-I	Gyatti Gyatti Gyatti Gyatti Gyatti Gyatti
13	HRUSHIKESH M. KALE	BSC-I	
14	PAYAL M. JAROLE	BSC-I	Jype Jype Jype Jype Jype Jype
15	KAJAL D. AFARE	BSC-I	Befure Befure Befure Befure Befure Befure
16	RUTIKA S. THORAT	BSC-I	Rathore Rathore Rathore Rathore Rathore
17	SANSKRUTI R. HATEKAR	BSC-I	Sanskar Sanskar Sanskar
18	AJINKYA V. CHIKTE	BSC-I	Quik Quik Quik Quik
19	SAURABH S. GUJAR	BSC-II	Gujar Gujar Gujar Gujar
20	MOHINI A. SHIRBHATE	B.SC-II	Shirbhat Shirbhat Shirbhat Shirbhat
21			
22			
23			
24			

Coordinator

Head, Department of Computer Science
Computer Science
H O D
Smt.R.S.College,Anjangaon

Principal
Smt. Radhabai Sarda College
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Anjangaon Surji

01/10/2018

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Smt Radhabai Sarda Arts, Commerce & Science College, Anjangaon Surji

Department of Computer Science

Add-on Course

(Academic Session: 2018-2019)

Attendance Sheet

Title of the Course: PC Hardware & Networking

Sr. No	Name of participants	ID No.	Class	17/09 (Theory/Practical)	17/09	18/09	18/09	Signature (date-wise) Sep-2018	20/09	20/09	21/09	21/09
1	RUSHIKESH N. REKHATE		BSc I									
2	ANAND D. DHAGE		BScJ									
3	ABHIJIT. R. KHADE		BScJ									
4	VISHAKHA S. PAYGHAN		BSc-I									
5	DHANSHREE S. TEWARE		BSc-I									
6	PRAJWAL.S.WAGHMARE		BScI									
7	MANALI J. PATEL		BSc-I									
8	SAMIKSHA A. PISOLKAR		BSc-I									

No.	Name	Class	Signatures
9	GAJANAN D. RAUT	BSc-I	*(signatures)*
10	PRANAVI S. MANEKAR	BSc-I	*(signatures)*
11	GAURI S. CHEODKE	BSc-I	*(signatures)*
12	GAYATRI D. PATIL	BSc-I	*(signatures)*
13	HRUSHIKESH M. KALE	BSc-I	*(signatures)*
14	PAYAL M. JAROLE	BSc-I	*(signatures)*
15	KAJAL D. AFARE	BSc-I	*(signatures)*
16	RUTIKA S. THORAT	BSc-I	*(signatures)*
17	SANSKRUTI R. HATEKAR	BSc-I	*(signatures)*
18	AJINKYA V. CHIKTE	BSc-I	*(signatures)*
19	SAURABH S. GUJAR	BSc-I	*(signatures)*
20	MOHINI A. SHIRBHATE	B.Sc II	*(signatures)*
21			
22			
23			
24			

Coordinator

Head, Department of Computer Science
HOD
Computer Science
Smt.R.S.College,Anjangaon

01/10/2018

Principal
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Anjangaon Surji

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(A Linguistic Minority Institution)

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Department of Computer Science

Add-on Course

(Academic Session: 2018-2019)

Attendance Sheet

Title of the Course: PC Hardware & Networking

Sr. No	Name of participants	ID No.	Class	(Theory/Practical) Signature (date-wise) SEP-2018							
				22/09/17 22/09	24/09	24/09	25/09	25/09	26/09	26/09	27/09 27/09
1	RUSHIKESH N. REKHATE		BSc I								
2	ANAND D. DHAGE		BSc I								
3	ABHIJIT. R. KHADE		BSc I								
4	VISHAKHA S. PAJGHAN		BSc-I								
5	DHANSHREE S. TEWARE		BSc-I								
6	PRAJWAL S. WAGHMARE		BSc I								
7	MANALI J. PATEL		BSc I								
8	SAMIKSHA A. PISOLKAR		BSc I								

9	GAJANAN D. RAUT	BSc-I	*(signature)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
10	PRANAVI S. MANERAR	BSc-I	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
11	GAURI S. CHENDKE	BSc-I	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
12	GAYATRI D. PATIL	BSC-I	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
13	HRUSHIKESH M. KALE	BScI	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
14	PAYAL M. JAROLE	BSc-I	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
15	KAJAL D. AFARE	BSC-I	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
16	RUTIKA S. THORAT	BSc-I	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
17	SANSKRUTI R. HAJEKAR	BSc-I	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
18	ASINKYA V. CHIKTE	BSc-I	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
19	SAURABH S. GUJAR	BScII	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
20	MOHINI A. SHIRBHATE	B.ScII	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*	*(sig)*		
21										
22										

Coordinator

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Principal

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