

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

Skill Based Course in Scilab

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Department of Mathematics

Skill Based Course in Scilab

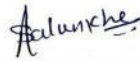
Report

As the department always strives for the best, taking into consideration the need of the computer and job opportunity Department of Mathematics ran the Skill Based Course entitled '**Scilab**' in academic year 2019-20.

The department has designed this course. It has its own Board of Studies (BoS). All the faculty members took active participation in running the said course. The course started from December 2019 and completed at March 2020. The 16 students enrolled to this course. The examination was conducted on 23rd March, 2020.

The present faculty of the department teaches this course as well. In addition to it the exam is taken and the certificates are issued to the students. Students are benefitted through this course.

Sr. No.	Year	No. of beneficiary students
1	2019-20	16


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Notice

Date: 16/12/2019

All students of B.Sc. III (Mathematics) are here by informed that Department of Mathematics going to organize your skill based course in Scilab has been scheduled from 21st December 2019 to March 2020, remain present at prescribed time in lecture hall.



A. Lunke
Head
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Skill Based Course in Scilab

Objectives and Outcome of the course

Objectives of the course:

- 1) To understand the fundamentals of Scilab.
- 2) To give working knowledge of Scilab typesetting language.
- 3) Students should use Scilab files to define documents class and layout options.
- 4) To understand graphical representation of mathematical functions.
- 5) To introduce basic concepts of scientific programming using Scilab.

Outcome of the course:

- 1) Understanding the basic knowledge of Scilab programming.
- 2) Understand the features of the Scilab programming
- 3) To learn access data base through java programs.
- 4) Student will get depth knowledge about computer technology.

Reference Books:-

- 1) R. R. Goldberg , Methods of Real Analysis, Oxford & IBH publishing Co. Pvt. Ltd., Fourth Edition 2016.
- 2) Sandeep nagar, Apress; introduction of scilab for engineering and scientists

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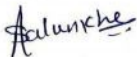
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Skill Based Course in Scilab

Course Particulars

1. Eligibility : XII std. pass.
2. Duration of Course : 3 Months.
3. No. of Students : 16
4. Examination : Written Exam (50 marks)
Practical Exam (50 marks)
5. Faculty : 1. Mrs. A.S. Salunkhe (Co-ordinator)
2. Miss. S. G. Mane
6. Coordinator : Head, Dept. of Mathematics
D. P. Bhosale College, Koregaon.
7. Board of Studies : 1. Mrs. Salunkhe A.S. (Co-ordinator)
2. Dr. Yadav J.D.(S.G. M. College, Karad)
3. Mr. Patil S .A. (S.G.M. College, Karad)
8. Experts Name : 1. Dr. Yadav J. D. (S. G. M. College, Karad)
2. Mr. Patil S.A. (S.G.M. College, Karad)


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Skill Based Course in Scilab

Syllabus

Sr.No.	Unit	Theory	Practical	Total period
1.	Introduction: Application, feature, scilabs environment workspace, working directory, Scilab as a calculate, mathematical predefined functions, constants, variables and their types	01	02	03
2.	Matrix: Rows matrix, column matrix, general matrix, operation on matrix addition, subtraction, product. Accessing element of matrix: Size of matrix, Length of matrix, accessing element using one index, two indices.	02	02	04
4.	Sub Matrix: Accessing sub matrix of given matrix using ':' operator & '\$' operator.	01	02	03
5	Advanced matrix operations: Matrix functions: eye(), zero(), ones(), empty matrix, element-wise operation, determinant, inverse, trace of matrix & diagonal element of matrix.	02	02	04
6	Polynomial: Creating a polynomial 1) using roots 2) using coefficients, roots of polynomial, derivative companion matrix, numerator & denominator of rational, simplifying	02	02	04

7	<p>Plotting graph: Creating graphs of simple functions.</p> <p>Introduction Scilab programming: disp (), Boolean operators, conditional statement (if select), find() and () or (), looping statement.</p>	02	02	04
8	<p>Numerical method to find roots of given function:</p> <p>a) Bisection method b) Newton- Raphson method</p>	01	02	03
9	<p>Numerical Methods for solution of Ordinary Differential Equations:</p> <p>(a) Euler Method (b) Euler's Modified Method</p>	02	03	05

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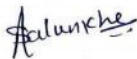
Time Table

Time Table (Dec.2019 to Mar.2020)

Theory and Practical (Per week)

TIME	MON.	TUE.	WED.	THU.	FRI.	SAT.
THEORY						
9.30-10.30 a.m.	S.G.M.	S.A.S.	-----	--		
PRACTICAL						
4.23 – 6.00 p.m.	S.G.M.	S.A.S	-----	-----		

1. S.A.S. - Mrs. Salunkhe A.S.
2. S.G.M - Miss. Mane S.G.



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Mrs. A.S Salunkhe explain about Scilab dated on 13/01/2020



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Roll Call

(Dec.2019 to Mar.2020)

Sr. No.	Name of the Students
1	Ghadage Snehal Sanjay
2	Ghorpade Pooja Mahadev
3	Gole Ankita Hanmant
4	Gole Madhavi Sunil
5	Jadhav Pradnya Jagannath
6	Jadhav Rutuja Sanjay
7	Koli Pooja Ashok
8	Kshirsagar Ashwini Dattatray
9	Mane Madhuri Ashok
10	Pandhare Darshana Subhash
11	Pawar Divya Vitthal
12	Pawar Vishvajeet Dadaso
13	Potekar Varsha Vitthal
14	Sakunde Shweta Santosh
15	Shinde Rutuja Rajendra
16	Yewale Akshada Dilip



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Examination Notice

Students of short term course of 'Scilab Programming' are hereby informed that their examination (Theory and Practical) will be conducted in month of 23rd March, 2020. The Dates and time table are as follows.

Examination	Subject.	Date	Time
Theory	Scilab Programming	23/03/2020	11.00 a.m. to 1.00 p.m.
Practical	Scilab Programming	23/03/2022	02.00 p.m. onwards.

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Date- 11/03/2020

Time-12 to 1pm

Marks-50

Instructions: 1) All questions are compulsory and equal marks

2) Figures to write indicate full marks.

Q.1) Write a Scilab Program on Euler's Method. **(15)**

OR

Q.1) Write a Scilab Program on Euler's Modified Method.

OR

Q.2) Define various loop Statements and give its proper syntax **(15)**

OR

Q.2) Write a scilab program on Bisection Method.

Q.3) Write a scilab program on Newton-Raphson Method **(10)**

OR

Q.3) Find $A*B$ using scilab: $A=[1\ 2\ 3]$, $B=[3\ 4\ 5;5\ 6\ 7;6\ 7\ 8]$

Q.4) Write a short note on: **(10)**

a) Return Statement

b) While loop

OR

Q.4) Solve the following questions using scilab

a) Add two matrices given below:

$$A = [1,2,3; 4,5,6] \text{ and } B = [4,5,6; 7,6,5]$$

b) Define a polynomial in terms of its coefficients using proper command.

[Take (6,-5,1) as coefficients]

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Mark-Sheet

Sr.No	Name of Student	Marks Theory out of 50	Marks Practical out of 50	Total out of 100	Grade
1	Ghadage Snehal Sanjay	32	48	80	A+
2	Ghorpade Pooja Mahadev	20	40	60	B
3	Gole Ankita Hanmant	32	48	80	A+
4	Gole Madhavi Sunil	34	48	82	A+
5	Jadhav Pradnya Jagannath	33	48	81	A+
6	Jadhav Rutuja Sanjay	35	49	84	A+
7	Koli Pooja Ashok	28	42	70	A
8	Kshirsagar Ashwini Dattatray	24	41	65	B
9	Mane Madhuri Ashok	28	40	68	B
10	Pandhare Darshana Subhash	20	48	68	B
11	Pawar Divya Vitthal	31	49	80	A+
12	Pawar Vishvajeet Dadaso	32	48	80	A+
13	Potekar Varsha Vitthal	AB	AB	AB	AB
14	Sakunde Shweta Santosh	32	42	74	A
15	Shinde Rutuja Rajendra	18	40	58	B
16	Yewale Akshada Dilip	33	48	81	A+

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Skill Based Course in Scilab

B.Sc. III

Sr. No.	Roll No.	Name of the Student	21/12/2019	31/12/2019	9/12/2019	10/12/2019	16/12/2019	17/12/2019
1	3681	Ghadage Snehal Sanjay	Ghadage	Ghadage		Ghadage	Ghadage	
2	3682	Ghorpade Pooja Mahadev	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja
3	3683	Gole Ankita Hanmant	AGole	AGole	AGole	AGole	AGole	AGole
4	3684	Gole Madhavi Sunil	Gole	Gole	Gole	Gole	Gole	Gole
5	3685	Jadhav Pradnya Jagannath	P.J.Jadhav	P.J.Jadhav		P.J.Jadhav	P.J.Jadhav	P.J.Jadhav
6	3686	Jadhav Rutuja Sanjay	RJadhav	RJadhav	RJadhav		RJadhav	
7	3687	Koli Pooja Ashok	Koli	Koli	Koli	Koli	Koli	Koli
8	3688	Kshirsagar Ashwini Dattatray	KAD	KAD	KAD	KAD	KAD	KAD
9	3689	Mane Madhuri Ashok	MMane	MMane	MMane	MMane	MMane	MMane
10	3690	Pandhare Darshana Subhash	DSP		DSP	DSP	DSP	DSP
11	3691	Pawar Divya Vitthal	DVPawar	DVPawar		DVPawar	DVPawar	
12	3692	Pawar Vishvajeet Dadaso	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar
13	3693	Potekar Varsha Vitthal	Potekar	Potekar	Potekar	Potekar	Potekar	Potekar
14	3694	Sakunde Shweta Santosh	SSakunde	SSakunde	SSakunde	SSakunde	SSakunde	
15	3695	Shinde Rutuja Rajendra	RShinde	RShinde	RShinde		RShinde	RShinde
16	3696	Yewale Akshada Dilip	AYewale	AYewale	AYewale	AYewale	AYewale	AYewale



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B.Sc. III

Sr. No.	Roll No.	Name of the Student	23/12/2019	24/12/2019	30/12/2019	31/12/2019	6/1/2020	7/1/2020
1	3681	Ghadage Snehal Sanjay	Ghadage	Ghadage	Ghadage	Ghadage	Ghadage	Ghadage
2	3682	Ghorpade Pooja Mahadev	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja
3	3683	Gole Ankita Hanmant	AGole	AGole	AGole	AGole	AGole	AGole
4	3684	Gole Madhavi Sunil	Gole	Gole	Gole	Gole	Gole	Gole
5	3685	Jadhav Pradnya Jagannath	P.J.Jadhav	P.J.Jadhav		P.J.Jadhav	P.J.Jadhav	
6	3686	Jadhav Rutuja Sanjay	Radhav	Radhav	Radhav	Radhav	Radhav	Radhav
7	3687	Koli Pooja Ashok		Koli	Koli		Koli	Koli
8	3688	Kshirsagar Ashwini Dattatray	K.A.D	K.A.D	K.A.D	K.A.D	K.A.D	K.A.D
9	3689	Mane Madhuri Ashok	Mane		Mane	Mane		Mane
10	3690	Pandhare Darshana Subhash	P.S.P	P.S.P		D.S.P	P.S.P	P.S.P
11	3691	Pawar Divya Vitthal	DV.Pawar	DV.Pawar		DV.Pawar	DV.Pawar	DV.Pawar
12	3692	Pawar Vishvajeet Dadaso	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar
13	3693	Potekar Varsha Vitthal	Potekar	Potekar	Potekar	Potekar	Potekar	Potekar
14	3694	Sakunde Shweta Santosh		Sakunde		Sakunde	Sakunde	Sakunde
15	3695	Shinde Rutuja Rajendra	R.Shinde	R.Shinde	R.Shinde	R.Shinde	R.Shinde	R.Shinde
16	3696	Yewale Akshada Dilip	Yewale	Yewale	Yewale	Yewale	Yewale	Yewale



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Sr. No.	Roll No.	Name of the Student	13/1/2020	14/1/2020	20/1/2020	21/1/2020	27/1/2020	28/1/2020
1	3681	Ghadage Snehal Sanjay	Ghadage	Ghadage	Ghadage	Ghadage	Ghadage	Ghadage
2	3682	Ghorpade Pooja Mahadev	Pooja		Pooja	Pooja		Pooja
3	3683	Gole Ankita Hanmant	AGole	AGole	AGole	AGole	AGole	AGole
4	3684	Gole Madhavi Sunil	Gole	Gole	Gole	Gole	Gole	Gole
5	3685	Jadhav Pradnya Jagannath	P.J.Jadhav	P.J.Jadhav	P.J.Jadhav	P.J.Jadhav	P.J.Jadhav	P.J.Jadhav
6	3686	Jadhav Rutuja Sanjay	Rgadhav			Rgadhav		Rgadhav
7	3687	Koli Pooja Ashok	Koli	Koli	Koli	Koli	Koli	Koli
8	3688	Kshirsagar Ashwini Dattatray	KAD	KAD			KAD	KAD
9	3689	Mane Madhuri Ashok	Mmane	Mmane	Mmane	Mmane	Mmane	Mmane
10	3690	Pandhare Darshana Subhash	PSP		P.S.P	PSP		PSP
11	3691	Pawar Divya Vitthal	DVPawar	DVPawar	DVPawar	DVPawar	DVPawar	DVPawar
12	3692	Pawar Vishvajeet Dadaso	Pawar			Pawar	Pawar	Pawar
13	3693	Potekar Varsha Vitthal	Potekar	Potekar	Potekar	Potekar	Potekar	Potekar
14	3694	Sakunde Shweta Santosh		SSkunde		SSkunde	SSkunde	SSkunde
15	3695	Shinde Rutuja Rajendra	RShinde	RShinde	RShinde	RShinde	RShinde	RShinde
16	3696	Yewale Akshada Dilip	Ayewale	Ayewale			Ayewale	Ayewale



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B.Sc. III

Sr. No.	Roll No.	Name of the Student	8/2/2020	4/2/2020	10/2/2020	11/2/2020	17/2/2020	18/2/2020
1	3681	Ghadage Snehal Sanjay	Ghadage	Ghadage	Ghadage	Ghadage	Ghadage	Ghadage
2	3682	Ghorpade Pooja Mahadev	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja
3	3683	Gole Ankita Hanmant	AGole	AGole	AGole	AGole	AGole	AGole
4	3684	Gole Madhavi Sunil		Gole		Gole		Gole
5	3685	Jadhav Pradnya Jagannath	P.J.Jadhav	P.J.Jadhav	P.J.Jadhav	P.J.Jadhav	P.J.Jadhav	P.J.Jadhav
6	3686	Jadhav Rutuja Sanjay	Rajadhav		Rajadhav	Rajadhav	Rajadhav	Rajadhav
7	3687	Koli Pooja Ashok	Koli	Koli	Koli	Koli	Koli	Koli
8	3688	Kshirsagar Ashwini Dattatray	KAD		KAD		KAD	KAD
9	3689	Mane Madhuri Ashok	Mmane	Mmane	Mmane	Mmane	Mmane	Mmane
10	3690	Pandhare Darshana Subhash	PSP	PSP		PSP	PSP	PSP
11	3691	Pawar Divya Vitthal	DVPawar	DVPawar	DVPawar	DVPawar	DVPawar	DVPawar
12	3692	Pawar Vishvajeet Dadaso	Pawar		Pawar		Pawar	Pawar
13	3693	Potekar Varsha Vitthal	Potekar	Potekar	Potekar	Potekar	Potekar	Potekar
14	3694	Sakunde Shweta Santosh	SSakunde	SSakunde	SSakunde		SSakunde	SSakunde
15	3695	Shinde Rutuja Rajendra	Rshinde	Rshinde	Rshinde	Rshinde	Rshinde	Rshinde
16	3696	Yewale Akshada Dilip		AYewale		AYewale	AYewale	



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Sr. No.	Roll No.	Name of the Student	24/2/2020	25/2/2020	2/3/2020	3/3/2020	9/3/2020	16/3/2020
1	3681	Ghadage Snehal Sanjay	Ghadage	Ghadage	Ghadage	Ghadage	Ghadage	Ghadage
2	3682	Ghorpade Pooja Mahadev	Pooja			Pooja	Pooja	
3	3683	Gole Ankita Hanmant	AGole	AGole	AGole	AGole	AGole	AGole
4	3684	Gole Madhavi Sunil	Gole	Gole	Gole	Gole	Gole	Gole
5	3685	Jadhav Pradnya Jagannath	P.S.Jadhav	P.S.Jadhav	P.S.Jadhav	P.S.Jadhav	P.S.Jadhav	P.S.Jadhav
6	3686	Jadhav Rutuja Sanjay		Rgadhav	Rgadhav		Rgadhav	Rgadhav
7	3687	Koli Pooja Ashok	Koli	Koli	Koli	Koli	Koli	Koli
8	3688	Kshirsagar Ashwini Dattatray	K.A.D.	K.A.D.	K.A.D.	K.A.D.	K.A.D.	K.A.D.
9	3689	Mane Madhuri Ashok	Mmane	Mmane	Mmane	Mmane	Mmane	Mmane
10	3690	Pandhare Darshana Subhash	.	D.S.P	D.S.P	D.S.P		D.S.P.
11	3691	Pawar Divya Vitthal	DVpawar	DVpawar	DVpawar	DVpawar	DVpawar	DVpawar
12	3692	Pawar Vishvajeet Dadaso	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar
13	3693	Potekar Varsha Vitthal	Potekar	Potekar	Potekar	Potekar	Potekar	Potekar
14	3694	Sakunde Shweta Santosh	SSakunde	SSakunde	SSakunde			SSakunde
15	3695	Shinde Rutuja Rajendra	RShinde	RShinde	RShinde	RShinde	RShinde	RShinde
16	3696	Yewale Akshada Dilip	Ayewale	Ayewale	Ayewale	Ayewale	Ayewale	Ayewale



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D. P. BHOSALE COLLEGE, KOREGAON

SKILL BASED COURSE

Certificate

This is to certify that Mr./Miss.....

CLASS :SUBJECT.....

has successfully completed three months

"Skill Based Course" in ..Scilab.....

From Dec-2019.... to ...Mar...2020.... and obtained Grade.


Chairman


Course Co-ordinator


Principal