

**FATIMA COLLEGE (AUTONOMOUS)**  
**College with potential for excellence**  
**(Reaccredited with A grade by NAAC)**  
**Mary land, Madurai -625018**

**DEPARTMENT OF MATHEMATICS - SF**  
**COMPUTATIONAL MATHEMATICS**

**2020-2021**  
**ADMISSION**  
**OPENS**

- . *Career Opportunities*
- . *Expanded Knowledge*
- . *Standards of Excellence*
- . *Heightened Professional Recognition*

**GOAL ;**

**TO PREPARE THEM TO  
APPLY THESE SKILLS IN AD-  
VANCED DEGREE PROGRAMMES  
AND/OR CAREERS REQUIRING  
EXPERTISE IN MATHEMATICS**





**FATIMA COLLEGE (AUTONOMOUS)**

**Mary Land, Madurai - 18**

**DEPARTMENT OF MATHEMATICS (SF)**

**CRASH COURSE**

**COMPUTATIONAL MATHEMATICS - 19UGVAG1**

**CODE: 19UGVAG1**

### **COURSE DESCRIPTION**

This course is designed to help the students to appear in competitive examinations.

### **COURSE OUTCOME**

At the end of the course, the students will be able to,

**CO1:** Solve problems on numbers, ages and trains

**CO2:** Illustrate profit and loss with examples

**CO3:** Explain partnership and related problems

**CO4:** Discuss problems on time and work

**CO5:** Solve problems on time and distances

### **COURSE OBJECTIVES:**

\* Demonstrate the use of mathematical reasoning by justifying through numerical skills.

\* Examine various techniques in solving the problems

### **UNIT I: PROBLEMS ON NUMBERS, AGES AND TRAINS**

**[ 6 Hours]**

Divisibility rules- LCM& HCF-unit digit-Arithmetic & Geometric Progression- Problems on ages-Problems on two trains moving on same direction- Problems on two trains moving on opposite direction.

**UNIT II: PIPES AND CISTERNS****[6 Hours]**

Problems on pipes & cisterns - shortcuts.

**UNIT III: PROFIT AND LOSS****[ 6 Hours]**

Profit and Loss: Cost Price – Selling Price – Profit or Gain – Loss – Gain percentage – Loss percentage.

**UNIT IV: PARTNERSHIP****[ 6 Hours]**

Partnership – Ratio of Division of Gains – Working and Sleeping Partners.

**UNIT V: TIME & WORK AND TIME & DISTANCE****[ 6 Hours]**

Time and Work: Important facts and formulae on time and work – Problems. Time and Distance: Important facts and formulae on speed, time and distance – Problems.

**Text Book:**

R. S. Aggarwal , Quantitative Aptitude for Competitive Examinations, S. Chand & Company Ltd, Revised Edition 2008.

**Department of Mathematics - SF**  
**CRASH COURSE ON COMPUTATIONAL MATHEMATICS**  
**COURSE OUTCOME**

1.	2020 – 2021	Computational Mathematics	<p>After completion of this course students will be able to</p> <ul style="list-style-type: none"><li>✓ Solve various problems on numbers, ages and trains.</li><li>✓ Identify and solve the profit and loss problems.</li><li>✓ Understand and solve the problems on pipes and cisterns.</li><li>✓ Explain about partnership and solve related problems.</li><li>✓ Solve problems on time and work, time and distance.</li></ul>
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# Fatima College (Autonomous) Modur - 18

Department of Mathematics - 5th  
 வகுப்பு: B.Sc. in Mathematics  
 மாணவர்

வருகைப் பதிவேடு

20.20 ஆண்டு ... 20.21

வரிசை எண்	பதிவு எண்	குரல்	01/12/20	02/12/20	03/12/20	04/12/20	05/12/20	06/12/20	07/12/20	08/12/20	09/12/20	10/12/20	11/12/20	12/12/20	13/12/20	14/12/20	15/12/20	16/12/20	17/12/20	18/12/20	19/12/20	20/12/20	21/12/20	22/12/20	23	24	25	26	27	28	29	30	31	மொத்த நாட்கள்
1.	2019M81	Abhinav .G	1	1	1	1	2	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.	2019M82	Anushree .A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.	2019M83	Bridget Cicelia Ignatius	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4.	2019M84	Grandhimathi .S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5.	2019M85	Geetha Mathi .A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6.	2019M86	Haniya .K.S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7.	2019M87	Hema .S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	2019M88	Hemalatha .K	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	2019M89	Ishwarya .T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10.	2019M90	Kamalavigneshwari .R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11.	2019M91	Karthiga .P	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12.	2019M92	Karthika .C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13.	2019M93	Kodesshwarani .M	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14.	2019M94	Lakshmi Priya .R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15.	2019M95	Lakshmi Manjari .E	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16.	2019M96	Maha Lakshmi .K	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17.	2019M97	Mathumitha .R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18.	2019M98	Nagavari .R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19.	2019M99	Priya Bharathini .M	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20.	2019M100	Rajeshwari .P	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21.	2019M101	Rajkumar .T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22.	2019M102	Savitha .R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23.	2019M103	Sindhya .R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24.	2019M104	Sowmya .S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	2019M105	Suveda .P	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26.	2019M106	Kiruthika Sreenivas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27.	2019M107	Sharmathi .K	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28.	2019M108	Akhya .A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29.	2019M109	Bharathi .A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30.	2019M110	Durga .P	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31.	2019M111	Lavanya .M	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32.	2019M112	Nithya Lakshmi .R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33.	2019M113	Niketha .R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34.	2019M114	Rendhu .M	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									

மாநகராட்சிக்குரிய இலாகாக்கள் \_\_\_\_\_ மாநகரில் பதிவு செய்யப்பட்டவை \_\_\_\_\_ மாநகரில் பதிவு செய்யப்படாதவை \_\_\_\_\_  
 மாநகரில் பதிவு செய்யப்பட்டவை \_\_\_\_\_ மாநகரில் பதிவு செய்யப்படாதவை \_\_\_\_\_ மாநகரில் பதிவு செய்யப்படாதவை \_\_\_\_\_

மாநகரின் முழுமையான உரிமைகள் \_\_\_\_\_ மாநகரின் பதிவு \_\_\_\_\_  
 மாநகரின் முழுமையான உரிமைகள் \_\_\_\_\_ மாநகரின் பதிவு \_\_\_\_\_



# DEPARTMENT OF MATHEMATICS (SF)



**FATIMA COLLEGE** (Autonomous)

Re-Accredited with 'A' Grade by NAAC (3<sup>rd</sup> Cycle)

College with Potential for Excellence

Mary Land, Madurai - 625018

This is to certify that Ms. Lavanya M.....J.B.Sc.Maths....  
has successfully completed the Value Added Crash Course on

## COMPUTATIONAL MATHEMATICS

during the academic year 2020 - 2021 and has been  
awarded Distinction / ~~First~~ / ~~Second~~ class.

*Dr. Sr. G. Celine Sahaya Mary*

**Dr. Sr. G. Celine Sahaya Mary**  
Principal

*P. Nancy*

**Head of the Department**

*P. Nancy*  
**Co-ordinator**