

Nallamuthu Gounder Mahalingam College

(Autonomous)

Re-Accredited by NAAC and ISO 9001:2015 Certified Institution

Affiliated to Bharathiar University, Coimbatore

Pollachi – 642 001



A REPORT ON

SKILL BASED DEVELOPMENT PROGRAMME ON FOUNDATIONS OF MATHEMATICS AND COMPUTER SCIENCE

16.08.2022 to 26.08.2022



Organized by

Department of Computer Science with Data Analytics

and

Department of Computer Science with Artificial Intelligence & Machine Learning



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Name of the Programme : Skill Based Development Programme on Foundations of Mathematics and Computer Science

Department : B.Sc Computer Science with Data Analytics & B.Sc Computer Science with AI and ML

Name of the Organizer : Dr. E. Rama Devi and Dr. S. Niraimathi

Category : Skill Based Development Programme

Date : 16.08.2022 to 26.08.2022

No. of Days : 7

Sessions - 10

No. of Participants: 29

In Collaboration with: GVG Vishalakshi College for Women, Udumalpet and PA College of Engineering and Technology, Pollachi

Target Audience: First Year Students

Beneficiaries of the Event: Students

Link to the Activity report on the website:

Event ID: IQAC/2022-23/AUG/016

Enclosure:

1. Programme Schedule
2. Detailed Session Report of the Event
3. Photo
4. Attendance (Name, Designation / Roll No, Signature)
5. Feed Back Form
6. Questions

**SKILL BASED DEVELOPMENT PROGRAMME ON FOUNDATIONS OF
MATHEMATICS AND COMPUTER SCIENCE**

Department of Computer Science with Data Analytics

Department of Computer Science with AI and ML

IQAC Ref. No. IQAC/2022-23/AUG/016

AGENDA

Date	Session	Topics covered	Faculty
16.08.2022	A.N (2.00 p.m to 4.00 p.m)	Matrix Operations & Set theory	Dr. B. Azhagusundari NGM College Pollachi
17.08.2022	A.N (2.00 p.m to 4.00 p.m)	Number Theory & Types of Equations (Linear Algebra)	Ms. G. AngayarKanni NGM College Pollachi
18.08.2022	A.N (2.00 p.m to 4.00 p.m)	Probability & Statistics, Mathematical Logic	Ms. A. Kalaivani NGM College Pollachi
22.08.2022	A.N (2.00 p.m to 4.00 p.m)	Operations Research, Functions & Relations	Ms. S. Sharmila NGM College Pollachi
23.08.2022	F.N(10.00 a.m to 1.00 p.m)	Numerical Methods	Ms. Jayalakshmi G.V.G College Udumalpet
	A.N (2.00 pm to 4.00 p.m)	Calculus	Dr. Gandhimathi P.A College of Technology Pollachi
25.08.2022	FN (11.00pam – 1.00pm)	Computers - Basic to Advanced	Dr. E. Rama Devi NGM College Pollachi
25.08.2022	AN (2.00pm – 4.00pm)	Applications of Artificial Intelligence	Dr. S. Niraimathi NGM College Pollachi
26.08.2022	FN(10.00am – 12.00pm)	Basics of Data Management	Dr. K. Thilagam NGM College Pollachi
26.08.2022	AN (2.00pm – 4.00pm)	Introduction of IOT	Mrs. Thavapriya NGM College Pollachi

Dean-Academic

Dean- Research

HOD

Principal

Detailed Report of the Skill Based Development Programme

Title

Skill Based Development Programme on Foundations of Mathematics and Computer Science

Date: 16.08.2022 to 26.08.2022

Preamble

Skill Based Development Programme on Foundations of Mathematics and Computer Science has been jointly conducted by the Department of Computer Science with Data analytics and Department of Computer Science with Artificial Intelligence and Machine Learning from 16.08.2022 to 26.08.2022 (10 Sessions) at NGM College for the First Year Students of both the programmes

Objective

- To bridge the gap between subjects studied at school level and subjects they would be studying in degree level
- To brush up the fundamental knowledge of mathematics and computer science of the students and prepare them for current course

Methodology

- Action plan of the bridge course is prepared well in advance and get it approved by respective HOD and Dean
- Power point presentation, chalk and talk methods have been adopted for the theory subjects.
- Hands on training and interactive sessions are conducted for laboratory sessions.

Event Outcome

As per the results of the quiz conducted at the end of the Skill Development Programme, it is evident that most of the students who attended the programme have gained the knowledge and skills of basic concepts of Mathematics and Computer subjects. And on average, 75% of marks was scored by students.

Participants Profile

A total of 29 students from Department of Computer Science with Data Analytics and Department of Computer Science with AI and ML were participated

Description of the Program

The Skill based Development Programme was inaugurated by Dr. Saravana Babu Dean-Academic and Dr. Umapathy, Dean- Research along with the inaugural speech highlighting the importance of the programme.

Session 1

Resource Person: Dr. B. Azhagusundari, Associate Professor, Department of BCA, NGM College, Pollachi

Title: Matrix Operations and Set Theory

Date: 16.08.2022

Dr. B. Azhagusundari narrated the basic concepts of Matrix and its operations. She extended her presentation to set theory and its applications. She also explained how these topics are useful to the computer field and especially in the field of Data analytics and Artificial Intelligence and Machine Learning

Session 2

Resource Person: Mrs.G.Angayarkanni, Assistant Professor, Department of Computer Science, NGM College, Pollachi

Title: Number Theory and Types of Equations

Date: 17.08.2022

In this session, number theory and type of equations were delivered. Mrs.G.Angayarkanni, clearly explained the concept of number theory which helps discover interesting relationship between sorts of numbers and to prove that these are true. She also explained the concept of Linear equation and linear algebra which is the most important skill set for machine learning. She gave a brief idea of usage of Linear algebra in data pre-processing, data transformation and model evaluation

Session 3

Resource Person: Ms.A. Kalaivani, Assistant Professor, Department of Computer Technology, NGM College, Pollachi

Title: Probability and Statistics, Mathematical Logic

Date: 18.08.2022

Ms. Kalaivani taught the prerequisite knowledge in the fundamental concept of probability and statistics & mathematical logic. She taught how probability, statistics & mathematical logic are

strongly connected in deriving algorithms in data analytics. She also gave thorough information on some of the mathematics terminologies, definitions, dependent events, independent events, conditional probability, real-world examples, mathematical logic-based terms, propositions on data, problems, the way that statistics provides the procedures for deriving results from sample data, and also explained how the data examinations and evaluation are done with small data as well as mentioned the strengths and major role of mathematics concepts in artificial intelligence and machine learning projects.

Session 4

Resource Person: Mrs. S. Sharmila, Assistant Professor, Department of Computer Science, NGM College, Pollachi

Title: Operations Research, Functions and Relations

Date: 22.08.2022

Mrs. Sharmila introduces the fundamentals of Operations Research and its functions. She explained how to solve the linear programming problems using appropriate techniques and optimization solvers, interpret the results obtained. She explained the optimal strategy for Minimization of Cost of shipping of products from source to Destination/ Maximization of profits of shipping products using various methods, finding initial basic feasible and optimal solution of the Transportation problems

Session 5

Resource Person: Mrs. Jeyalakshmi, Assistant Professor, Department of Mathematics, GVG College, Udumalpet

Title: Numerical Methods

Date: 23.08.2022

The main objective of this session is to learn the procedure of simultaneous linear algebraic equations using direct and iterative methods. Simultaneous linear algebraic equations which is used in the field of Science and engineering was solved using Cramer's rule and matrix methods. These methods however become tedious when the number of unknowns in the system is large. Thereby various numerical methods such as Gauss elimination method, Gauss Jacobi method, Jacobi method, Gauss Seidel method and relaxation method for finding the solutions were developed which are well suited for implementation in computers. The students will be able to create, analyse, and implement algorithms to solve problems.

Session 6

Resource Person: Dr. Gandhimathi, Assistant Professor, Department of Science and Humanities, PA College of Technology, Pollachi

Title: Calculus

Date: 23.08.2022

Dr. Gandhimathi introduced the concept of calculus that deals with the properties of derivatives and integrals of quantities such as area, volume, velocity, acceleration, etc., by processes initially dependent on the summation of infinitesimal differences. It helps in determining the changes between the values that are related to the functions. She also explained three main tools such as limits, derivatives, and integrals for analysing and describing the behaviour of functions. She also insisted the students to use these tools to solve applications-oriented problems.

Session 7

Resource Person: Dr. E. Rama Devi, Associate Professor, Department of Computer Science with Data analytics, NGM College, Pollachi

Title: Computers – Basics to Advanced

Date: 25.08.2022

Dr. E. Rama Devi gave the awareness on the foundations of Computer Science from the Scratch and she explained in detail about the Organisation of Computer. She detailed the concept of primary storage, secondary storage and the concept of processors. She also gave the detailed awareness on the types of software and translator. She explained the important terminology like compiler, assembler, operating system and interpreter. She introduced the concept of data, and explained the recent technologies related to data like Data Mining and Big Data. She also gave the awareness on the advanced technologies like Cloud Computing, Data Science, Artificial Intelligence, Machine Learning, Internet of Things, Hacking and Cybersecurity.

Session 8

Resource Person: Dr. S. Niraimathi, Associate Professor, Department of Computer Science with AI and ML, NGM College, Pollachi

Title: Applications of Artificial Intelligence

Date: 25.08.2022

Dr.S. Niraimathi handled this session on Applications of Artificial Intelligence. This session threw the insight into the nuances of AI and its use cases. She highlighted the applications of AI

in almost all the domain in the real world and environment of its usability. She also covered the inter domain of AI and Analytics, AI and IOT and other inter domain applications.

Session 9

Resource Person: Dr. K. Thilagam, Assistant Professor, Department of Computer Science with Data Analytics, NGM College, Pollachi

Title: Data Management

Date: 26.08.2022

The objective of this session is to provide the students an insight about data, and its representation in computers and the terminologies used in data processing. Dr. Thilagam motivated the students to know the techniques used in storing and processing data in the computer. She also provided the foundation for the students to study the techniques used in handling large volumes of data and also the techniques for analysing data and deriving useful information specific to various applications. The students were eager to know about Big data, Cloud storage and also its impact on the society and in various industries. They understood the need of Data analysis and its application in Machine learning.

Session 10

Resource Person: Mrs.M.Thavapriya, Assistant Professor, Department of Computer Science, NGM College, Pollachi

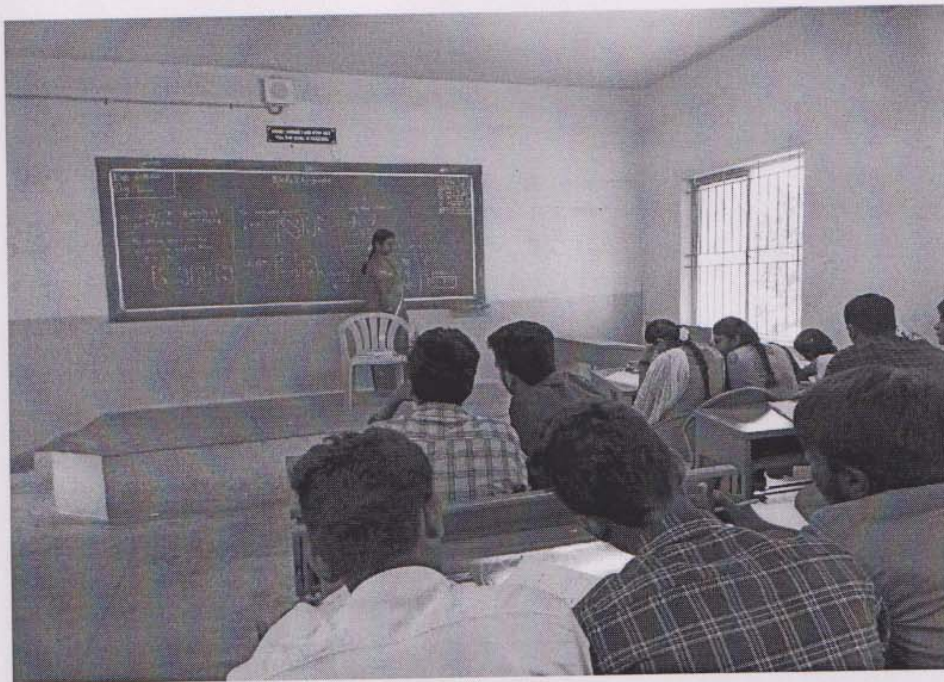
Title: Introduction to IOT

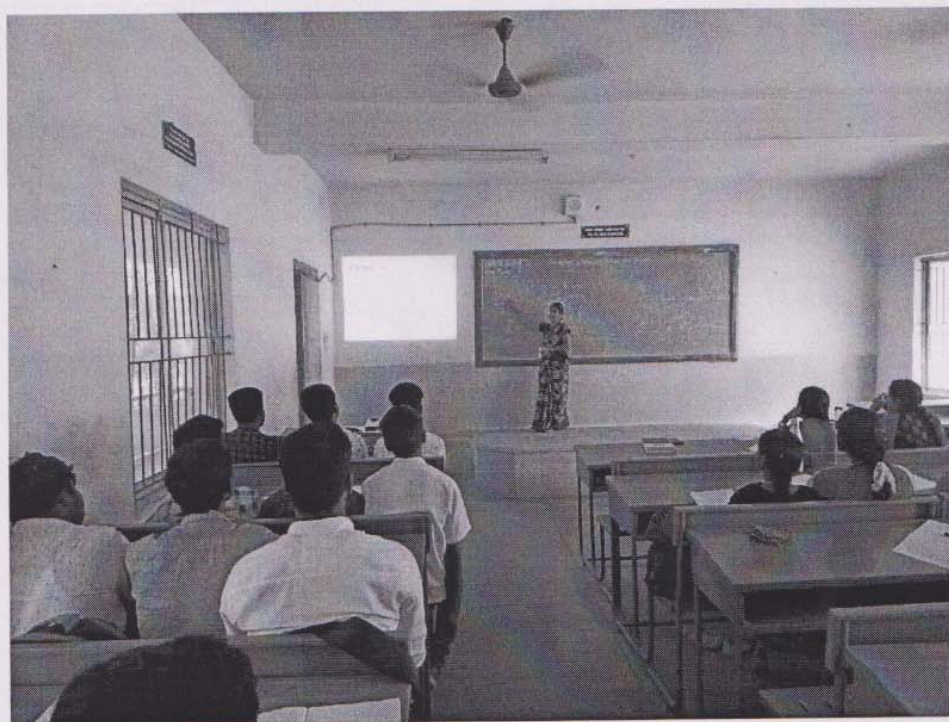
Date: 26.08.2022

Mrs. Thavapriya introduced the concept of Internet of Things which is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human to human or human to computer interaction. She also gave the awareness of IOT on various applications like agriculture, Healthcare, Insurance etc. She gave the hands on experience on the usage of Raspberry Pi.

Photos







NGM COLLEGE, POLLACHI

Skill Based Development Programme on Foundations of Mathematics and
Computer Science from 16.08.2022 to 22.08.2022

Department of Computer Science with Data analytics

Attendance Report

Sn o	Name	16.08.2022	17.08.2022	18.08.2022	22.08.2022	23.08.2022	25.08.2022	26.08.2022
1	Dharani R	Dharani R	Dharani R	Dharani R	Dharani R	Dharani R	Dharani R	Dharani R
2	Elamathi N	N. Elamathi	N. Elamathi	N. Elamathi	N. Elamathi	N. Elamathi	N. Elamathi	N. Elamathi
3	Gobiga R	R. Gobiga	R. Gobiga	R. Gobiga	R. Gobiga	R. Gobiga	R. Gobiga	R. Gobiga
4	Monisha M	M. Monisha	M. Monisha	M. Monisha	M. Monisha	M. Monisha	M. Monisha	M. Monisha
5	Preethi T	T. Preethi	T. Preethi	T. Preethi	T. Preethi	T. Preethi	T. Preethi	T. Preethi
6	Dinesh Singh S	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh
7	Suki Ragav P M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M
8	Devanth R	Devanth R	Devanth R	Devanth R	Devanth R	Devanth R	Devanth R	Devanth R
9	Krithik Babu B	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu
10	Yogeshwaran P	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran
11	Suwiss Antony J	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony

Dr. E. Rama Devi

(Dr. E. Rama Devi)

26.08.2022

NGM COLLEGE, POLLACHI

Skill Based Development Programme on Foundations of Mathematics and
Computer Science from 16.08.2022 to 22.08.2022

Department of Computer Science with AI and ML

Attendance Report

Sno	Name	16.08.2022	17.08.2022	18.08.2022	22.08.2022	23.08.2022	25.08.2022	26.08.2022
1	Adhitya.J	J.Adhithya	J.Adhithya	J.Adhithya	J.Adhithya		J.Adhithya	J.Adhithya
2	Baranitharan							
3	Binu Wilson	Binu	Binu	Binu	Binu	Binu	Binu	-
4	MohanaPrasath							
5	Sivaram.S		Divoram		Divoram	Divoram	Divoram	
6	Siva Bharathi.M	R.m.s.f.	R.m.s.f.	R.m.s.f.	R.m.s.f.	R.m.s.f.	R.m.s.f.	R.m.s.f.
7	ShafeekAhammed	Shafeek	Shafeek	Shafeek	Shafeek	Shafeek	Shafeek	Shafeek
8	NagaGowtham	T.Nagath	T.Nagath	T.Nagath	T.Nagath	T.Nagath	T.Nagath	T.Nagath
9	Yogesh.T	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh
10	Yogeshwaran.S	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh
11	Yomadhan.M	YOMADHAN	YOMADHAN	YOMADHAN	YOMADHAN	YOMADHAN	YOMADHAN	YOMADHAN
12	Varun	Varun	Varun	Varun	Varun	Varun	Varun	Varun
13	GayathriPriya.N	GayathriPriya	N.Gayathri	N.Gayathri	N.Gayathri	N.Gayathri	N.Gayathri	N.Gayathri
14	Kaviyaharshini.K	Kaviyaharshini	Kaviyaharshini	Kaviyaharshini	Kaviyaharshini	Kaviyaharshini	Kaviyaharshini	Kaviyaharshini
15	KrishnaJayanthi.M	N.Krishna	N.Krishna	N.Krishna	N.Krishna	N.Krishna	N.Krishna	N.Krishna
16	Sandhia.A	A.Sandhia	A.Sandhia	A.Sandhia	A.Sandhia	A.Sandhia	A.Sandhia	A.Sandhia
17	Vaishnavi							
18	Yojana.V	Yojana.V	Yojana.V	Yojana.V	Yojana.V	Yojana.V	Yojana.V	Yojana.V

Chellu's

26.08.2022

(Dr.S. Niraimathi)

Online Examinations on Skill Based Development Programme on Foundations of Mathematics and Computer Science

Department of Computer Science with Artificial Intelligence & Machine Learning and Computer Science with Data Analytics
Skill Based Development Programme on Foundations of Mathematics and Computer Science

niraimathi@ngmc.org Switch account



* Required

Email *

Your email

1. What is Artificial Intelligence? *

1 point

- ☐ Artificial Intelligence is a field that aims to make humans more intelligent
- ☐ Artificial Intelligence is a field that aims to improve the security
- ☐ Artificial Intelligence is a field that aims to develop intelligent machines
- ☐ Artificial Intelligence is a field that aims to mine the data
- ☐ Other:

2. Who is the inventor of Artificial Intelligence? *

1 point

- ☐ Geoffrey Hinton
- ☐ Andrew Ng
- ☐ John McCarthy
- ☐ Jürgen Schmidhuber

3. What is the goal of Artificial Intelligence? *

1 point

- ☐ To solve artificial problems
- ☐ To extract scientific causes
- ☐ To explain various sorts of intelligence
- ☐ To solve real-world problems

4. Which of the following is the branch of Artificial Intelligence? *

1 point

- ☐ Machine Learning
- ☐ Cyber forensics
- ☐ Full-Stack Developer
- ☐ Network Design

5. Which of the following is an application of Artificial Intelligence? *

1 point

- ☐ It helps to exploit vulnerabilities to secure the firm
- ☐ Language understanding and problem-solving (Text analytics and NLP)
- ☐ Easy to create a website
- ☐ It helps to deploy applications on the cloud

6. If set $A = \{1,2,3,4,5\}$ $B = \{2,4,6,8,10\}$ then $A \cup B$ *

1 point

- ☐ $\{1, 2, 3, 4, 5, 2,4,6, 8, 10\}$
- ☐ $\{2, 4\}$
- ☐ $\{1,2,3,4,5,6,7,8,9,10\}$

7. If set $A = \{1,2,3,4,5\}$ $B = \{4,5,6,8,10\}$ then $A - B$ *

1 point

- ☐ $\{1, 2, 3, 4, 5, 6, 8, 10\}$
- ☐ $\{1, 2, 3\}$
- ☐ $\{4\}$
- ☐ $\{1,2,3,5,6,7,8,9,10\}$

8. A collection of well defined object is called *

1 point

- ☐ Graph
- ☐ List
- ☐ Set
- ☐ Vector

9. What is the probability of getting an even number when a dice is thrown? * 1 point

- ☐ 1/6
- ☐ 1/2
- ☐ 1/3
- ☐ 1/4

10. Mean value for 45,32,14,78,56 *

1 point

- ☐ a.46
- ☐ b.40
- ☐ c.32
- ☐ d.45

11. Matrix A= [1 2 3 4] , Matrix B=[4 5 3 1] then A+B=? *

1 point

- ☐ A+B= [5 7 6 4]
- ☐ A+B= [5 7 9 4]
- ☐ A+B= [5 7 6 5]
- ☐ A+B= [5 10 6 4]

12. What is the full form of IIOT? *

1 point

- ☐ A) Index Internet of Things
- ☐ B) Incorporate Internet of Things
- ☐ C) Industrial Internet of Things
- ☐ D) Intense Internet of Things

13. Which of the following is used to capture data from the physical world in IoT devices? * 1 point

- ☐ A) Sensors
- ☐ B) Actuators
- ☐ C) Microprocessors
- ☐ D) Microcontroller

14. Which of the following processor is used in the Raspberry PI 3 IoT device?

* 1 point

- ☐ A) Broadcom BCM2711
- ☐ B) Broadcom BCM2837
- ☐ C) Broadcom BCM2838
- ☐ D) Intel 8085

15. What is the component of an IoT system that executes a program? *

1 point

- ☐ A) A sensor
- ☐ B) A microcontroller
- ☐ C) An actuator
- ☐ D) A digital to analog converter

16. Identify the language preferred for IoT Analytics. *

1 point

- ☐ A) Python
- ☐ B) HTML
- ☐ C) PHP
- ☐ D) C++

17. An event in the probability that will never happen is called as _____. *

1 point

- ☐ a. Unsure event
- ☐ b. Sure event
- ☐ c. Possible event
- ☐ d. Impossible event

18. The sum of the probability of an event and non-event is _____. *

1 point

- ☐ a. 2
- ☐ b. 1
- ☐ c. 0
- ☐ d. none of these

19. In classification, the data are arranged according to ____ 1 point

- ☐ a. Similarities
- ☐ b. Differences
- ☐ c. Percentages
- ☐ d. Ratios

20. 'Ram is in the class or Shivam is in the hospital'. Which one of the following is a negation of the above disjunction? * 1 point

- ☐ a. Ram is not in the class and Shivam is not in the hospital
- ☐ b. Ram is not in the class or Shivam is not in the hospital
- ☐ c. Ram is in the class and Shivamis not in the hospital
- ☐ d. Ram is not in the class and Shivam is in the hospital

21. What will be the probability of getting odd numbers if a dice is thrown? * 1 point

- ☐ a. $1/2$
- ☐ b. 2
- ☐ c. $4/2$
- ☐ d. $5/2$

22. 1. Operations Research approach is _____. * 1 point

- ☐ a. multi-disciplinary
- ☐ b. scientific
- ☐ c. intuitive
- ☐ d. collect essential data

23. The longest path in the network diagram is called ____ * 1 point

- ☐ a. head path
- ☐ b. sub path
- ☐ c. critical path
- ☐ d. sub critical path

24. Service mechanism in a queuing system is characterized by _____

* 1 point

- ☐ a. customers behavior
- ☐ b. servers behavior
- ☐ c. customers in the system
- ☐ d. server in the system

25. A relation R in a set A is called _____, if $(a_1, a_2) \in R$ implies $(a_2, a_1) \in R$, * 1 point
for all $a_1, a_2 \in A$.

- ☐ a. symmetric
- ☐ b. transitive
- ☐ c. equivalence
- ☐ d. non-symmetric

26. Let $A = \{1, 2, 3\}$ and consider the relation $R = \{(1, 1), (2, 2), (3, 3), (1, 2), (2, 3), (1, 3)\}$. Then R is

* 1 point

- ☐ a. reflexive but not symmetric
- ☐ b. reflexive but not transitive
- ☐ c. symmetric and transitive
- ☐ d. neither symmetric, nor transitive

27. _____ is an approximate computation method for solving a mathematical problem which often has no analytical solution.

* 1 point

- ☐ a) Operation Research
- ☐ b) Probability
- ☐ c) Statistics
- ☐ d) Numerical Method

28. The modification of Gauss elimination method is _____ method * 1 point

- ☐ a. Gauss Jordan
- ☐ b. Factorization
- ☐ c. Stirling's
- ☐ d. Bessel's

29. In Gauss elimination method the augmented matrix is reduced to * 1 point

- ☐ a. upper triangular matrix
- ☐ b. identity matrix
- ☐ c. diagonal matrix
- ☐ d. row matrix

30. _____ is a square matrix in which all the elements of principal diagonals are one, and all other elements are zeros. * 1 point

- ☐ a) Null Matrix
- ☐ b) Triangular Matrix
- ☐ c) Identity Matrix
- ☐ d) Diagonal Matrix

31. Which of the following is an iterative method? * 1 point

- ☐ a) Factorization
- ☐ b) Gauss Jordan
- ☐ c) Gauss Seidel
- ☐ d) Gauss Elimination

32. Which of the following is a direct method? * 1 point

- ☐ a) Gauss Seidel
- ☐ b) Gauss Jordan
- ☐ c) Gauss Jacobi
- ☐ d) Gauss elimination

33. In Gauss Jordan method which of the following transformations are allowed?

* 1 point

- ☐ a) Row transformation
- ☐ b) Column transformation
- ☐ c) Diagonal transformation
- ☐ d) Square transformation

34. Which of these is a primitive data type *

1 point

- ☐ a) List
- ☐ b) Class
- ☐ c) Float
- ☐ d) Set

35. Data about data is called _____ *

1 point

- ☐ a) Meta data
- ☐ b) Composite data
- ☐ c) Primitive data
- ☐ d) Mobile data

36. _____ is a Non Linear Data Structure *

1 point

- ☐ a) Array
- ☐ b) Stack
- ☐ c) Queue
- ☐ d) Tree

37. MySQL is an example of _____ *

1 point

- ☐ a) Storage Device
- ☐ b) Database Management System
- ☐ c) Data Structure
- ☐ d) Data Type

38. _____ is the process of examining data sets in order to find trends and draw conclusions about the information they contain. * 1 point

- ☐ a) Data Base
- ☐ b) Data analytics
- ☐ c) Data Storage
- ☐ d) Data Warehouse

39. Computers' Primary Memory _____ *

1 point

- ☐ a) Hard Disk Drive
- ☐ b) CD and DVD
- ☐ c) RAM and ROM
- ☐ d) Flash Array

40. _____ is a collection of data that is huge in volume, yet growing exponentially with time.

* 1 point

- ☐ a) Data Base
- ☐ b) Big Data
- ☐ c) Data Mart
- ☐ d) Multimedia

41. The general form of the linear equation in two variables x, y is * 1 point

- ☐ A) $ax + by + c = 0, a \neq 0$
- ☐ B) $ax + by + c = 0, |a| + |b| = 0$
- ☐ C) $ax + by + c = 0, |a| + |b| \neq 0$
- ☐ D) $ax + by + c = 0, a \neq 0, b \neq 0$

42. What is the GCD of 48, 18, 0? *

1 point

- ☐ a) 24
- ☐ b) 2
- ☐ c) 3
- ☐ d) 6

43. The polynomial equation $x(x + 1) + 8 = (x + 2)(x - 2)$ is *

1 point

- ☐ A) linear equation
- ☐ B) quadratic equation
- ☐ C) cubic equation
- ☐ D) bi-quadratic equation

44. Given a rational number $-5 \div 9$ This rational number can also be known as

* 1 point

- ☐ A) a natural number
- ☐ B) a whole number
- ☐ C) a fraction
- ☐ D) a real number

45. A vector space or a linear space is a group of objects called vectors, added collectively and multiplied by numbers, called _____

* 1 point

- ☐ A) Scalars
- ☐ B) Vectors
- ☐ C) Subspace
- ☐ D) Transformation

46. RAM is a _____ memory *

1 point

- ☐ Volatile
- ☐ Non Volatile
- ☐ Both Volatile and non Volatile
- ☐ None of the above

47. One Terabyte (1 TB) is equal to *

1 point

- ☐ A : 1028 GB
- ☐ B : 1012GB
- ☐ C : 1000 GB
- ☐ D : 1024 GB

48. Select the system software *

1 point

- ☐ Java
- ☐ Compiler
- ☐ C++
- ☐ Python

49. SQL stands for *

1 point

- ☐ A.Structured Query Language
- ☐ B.Structured Query List
- ☐ C.Simple Query Language
- ☐ D.None of these

50. Which technology is used to resolve hacking? *

1 point

- ☐ AI
- ☐ BigData
- ☐ IOT
- ☐ Cyber security

A copy of your responses will be emailed to the address you provided.

Submit

Clear form

Never submit passwords through Google Forms.

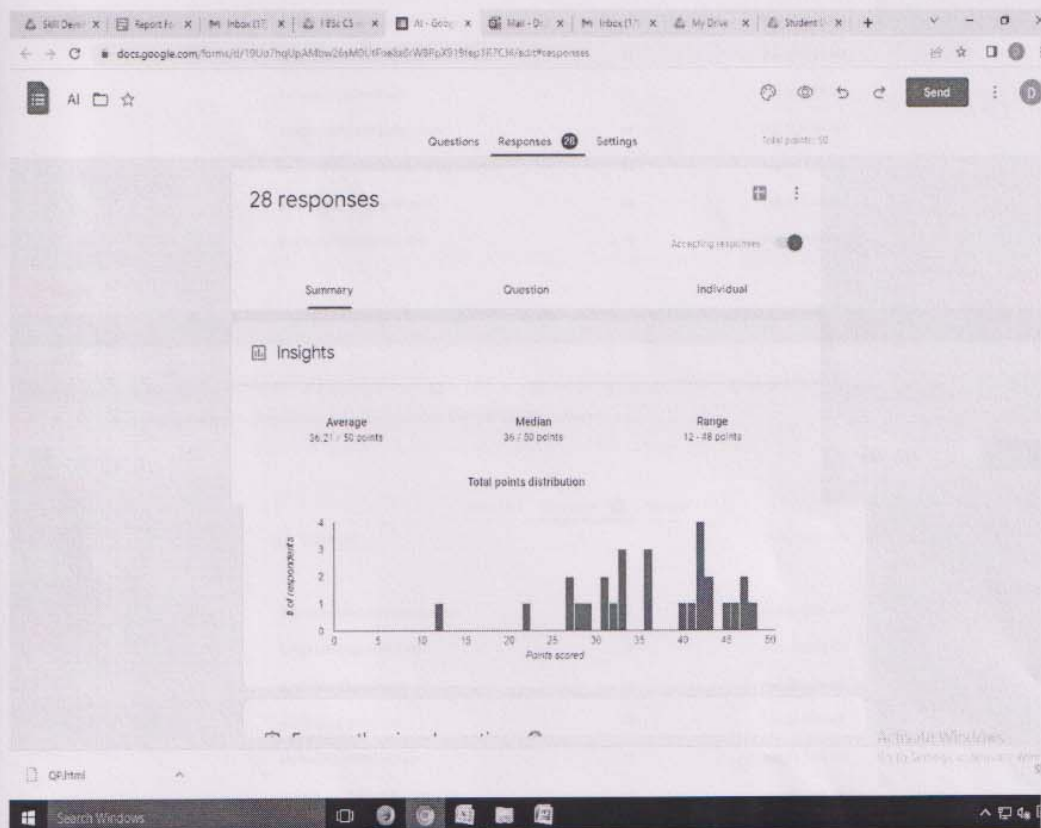
reCAPTCHA
[Privacy](#) [Terms](#)

This form was created inside of nallamuthu gounder mahalingam college. [Report Abuse](#)

Google Forms

Report on Online Test on Skill Based Development Programme on Foundations of Mathematics and Computer Science

30.08.2022



Google Chrome browser window showing a Google Forms interface. The address bar displays the URL: docs.google.com/forms/d/19UoThqUpAMbWz6sMCUjTne6x8vU8PpX919ep1RTCj4/edit#responses. The form is titled "Scores" and shows a list of responses. The "Responses" tab is selected, showing 20 responses. The "Scores" section displays a table with columns: Email, Score / 50, and Score released. The table lists 8 responses, all released on Aug 30 2:09 AM. The "Release scores" button is visible. The Windows taskbar at the bottom shows the time as 2:29 AM on 8/30/2022.

Email	Score / 50	Score released
mbharathi521@gmail.com	33	Aug 30 2:09 AM
yoganavijayakumar@gmail.com	29	Aug 30 2:09 AM
gayathiripriyagayathiripriya85@gmail.com	33	Aug 30 2:09 AM
harirajanto@gmail.com	27	Aug 30 2:09 AM
sandhiya4270238@gmail.com	31	Aug 30 2:09 AM
kavayaharshinikannappan749@gmail.com	22	Aug 30 2:09 AM
gobigarejmohan@gmail.com	36	Aug 30 2:09 AM
tnagagowtham@gmail.com	45	Aug 30 2:09 AM

Google Chrome browser window showing the same Google Forms interface. The address bar displays the URL: docs.google.com/forms/d/19UoThqUpAMbWz6sMCUjTne6x8vU8PpX919ep1RTCj4/edit#responses. The form is titled "Scores" and shows a list of responses. The "Responses" tab is selected, showing 20 responses. The "Scores" section displays a table with columns: Email, Score / 50, and Score released. The table lists 8 responses, all released on Aug 30 2:09 AM. The "Release scores" button is visible. The Windows taskbar at the bottom shows the time as 2:30 AM on 8/30/2022.

Email	Score / 50	Score released
yogeshsky2005.8973@gmail.com	41	Aug 30 2:09 AM
t.yogesa0104@gmail.com	36	Aug 30 2:09 AM
binukokkati@gmail.com	40	Aug 30 2:09 AM
jedhithiyee@gmail.com	47	Aug 30 2:09 AM
prethisuv2005@gmail.com	31	Aug 30 2:09 AM
varunkingoftheworld@gmail.com	43	Aug 30 2:09 AM
monishamurugesan05@gmail.com	32	Aug 30 2:09 AM
ram919568@gmail.com	36	Aug 30 2:09 AM
krishnajayanthi2005@gmail.com	28	Aug 30 2:09 AM

docsgoogie.com/forms/d/19Uo7higUpAMbw26uM0UjR9e6xdrw8FoK919fep1R7C34/edit#responses

AI

Questions Responses **28** Settings

Total points: 50

Scores

Release scores

krithe484@gmail.com	27	Aug 30 2:09 AM
shafeekahammed03@gmail.com	42	Aug 30 2:09 AM
dineshcingh2672004@gmail.com	42	Aug 30 2:09 AM
elamathiel512@gmail.com	42	Aug 30 2:09 AM
cheeranyogesh0@gmail.com	48	Aug 30 2:09 AM
sukiragav2005@gmail.com	46	Aug 30 2:09 AM
swissentony@gmail.com	43	Aug 30 2:09 AM
ravichandran123deva@gmail.com	42	Aug 30 2:09 AM
yomadhanm@gmail.com	33	Aug 30 2:09 AM

GP.html

baranthiala839@gmail.com	12	Aug 30 2:09 AM
mastermohan17082004@gmail.com	47	Aug 30 2:09 AM

GP.html

Search Windows

2:31 AM 8/30/2022

Activate Windows
Go to Settings to activate Windows.

2:31 AM 8/30/2022

Feedback on Skill Based Development Programme on Foundations of Mathematics and Computer Science (16.08.2022 – 26.08.2022)

The image displays two screenshots of a Google Forms interface titled 'New Feedback form'. The top screenshot shows a list of 20 responses, with the first eight names visible: Monisha, Dharani R, Adhithya, N. gayathripriya, Naga Gowtham, K. Kavyaharshini, Sandhya, and Yojana. The bottom screenshot shows a similar list of 20 responses, with the first eight names visible: M. Mohana prasath, Shafeek Ahammed R, Sivaram, Preethi T, M Yomathan, Gobiga rajmohan, Elamathi N, and Suwils antony. Both screenshots show the 'Responses' tab selected, with 'Questions' and 'Settings' tabs also visible. The 'Total points' are shown as 0 in both. The browser's address bar shows the form's URL, and the Windows taskbar at the bottom indicates the time as 2:58 AM on 8/30/2022.

20 responses

Monisha

Dharani R

Adhithya

N. gayathripriya

Naga Gowtham

K. Kavyaharshini

Sandhya

Yojana

Krishnagayanthi

20 responses

M. Mohana prasath

Shafeek Ahammed R

Sivaram

Preethi T

M Yomathan

Gobiga rajmohan

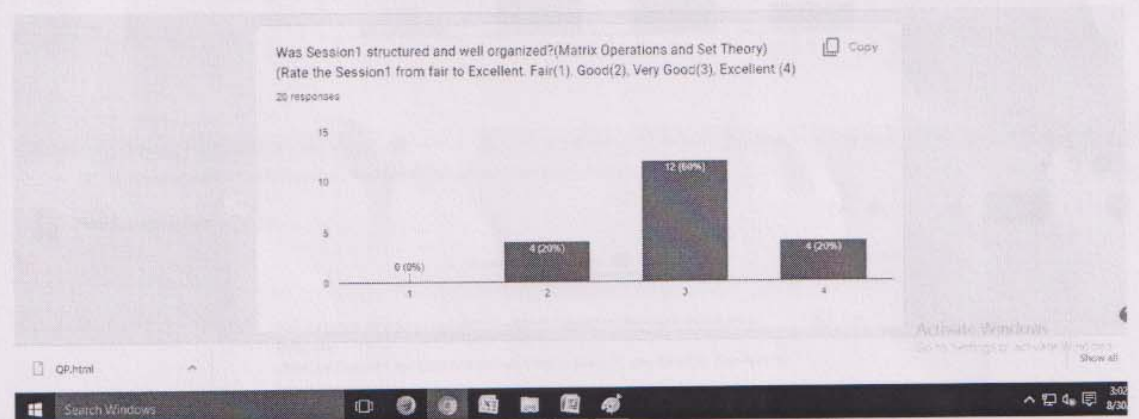
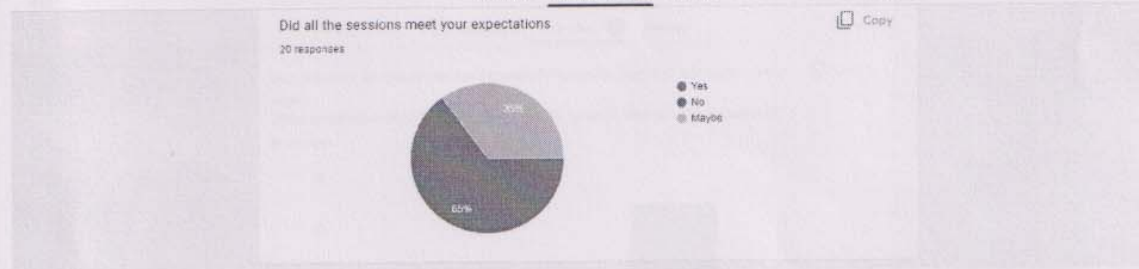
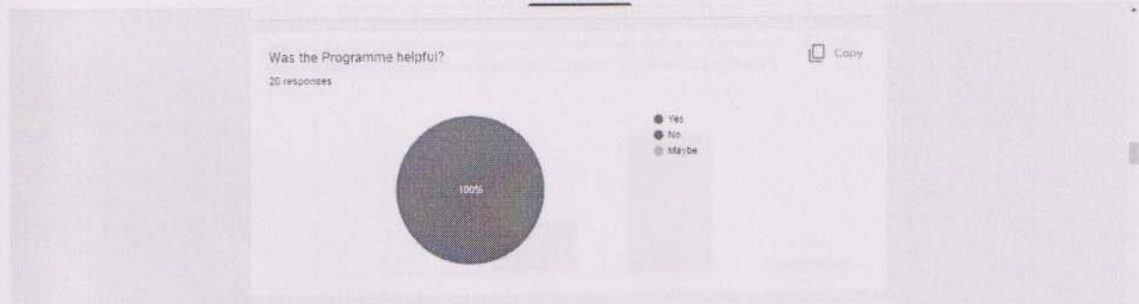
Elamathi N

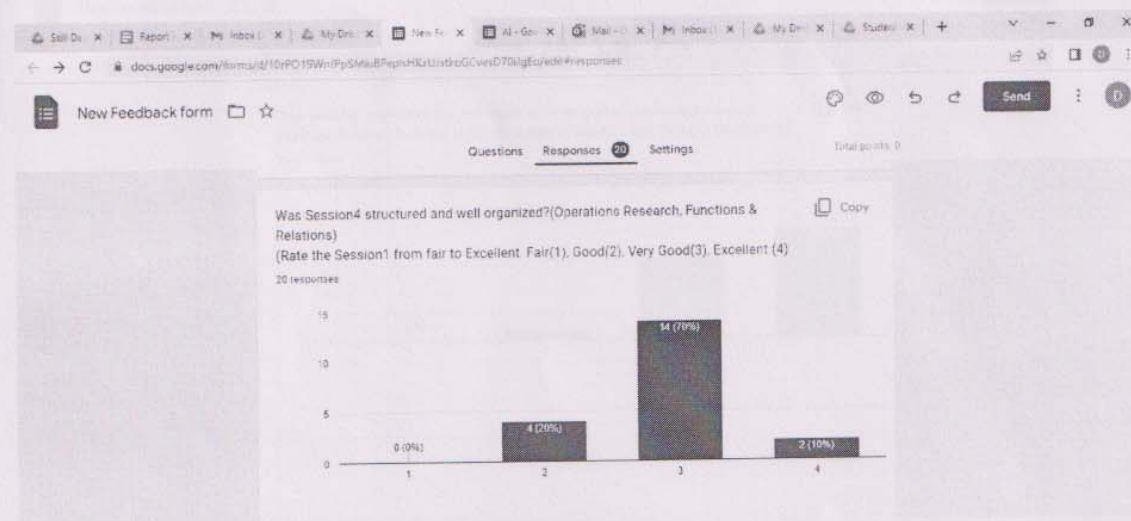
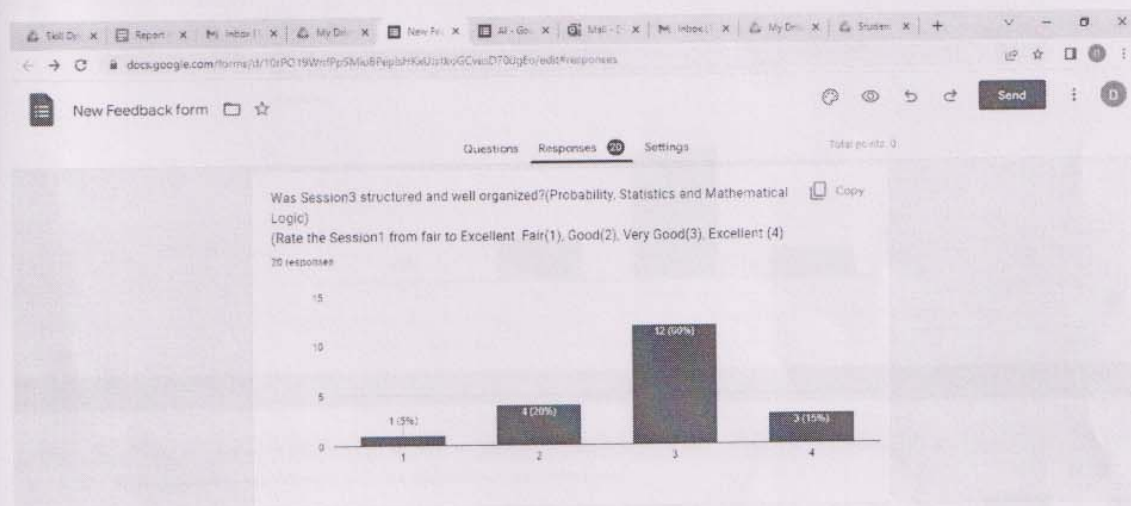
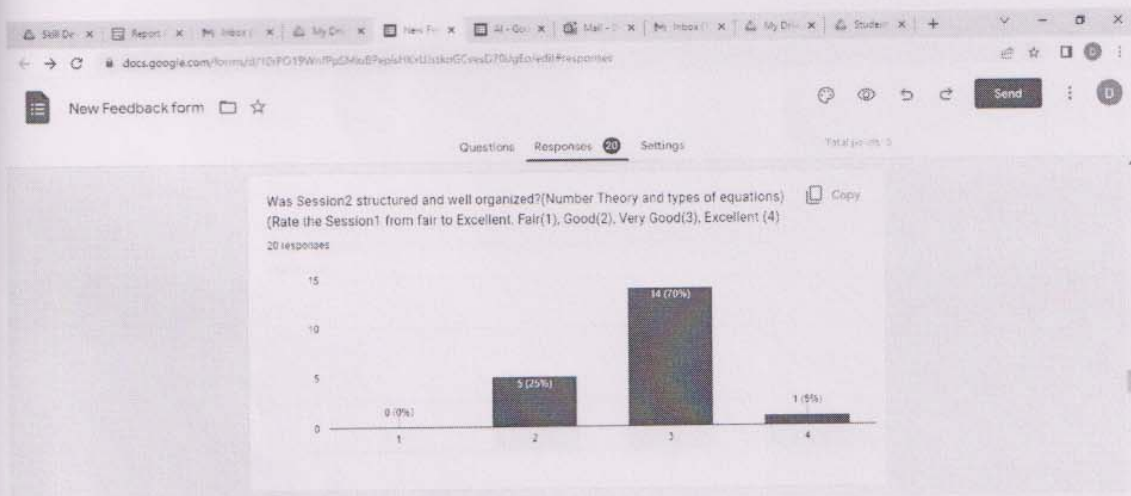
Suwils antony

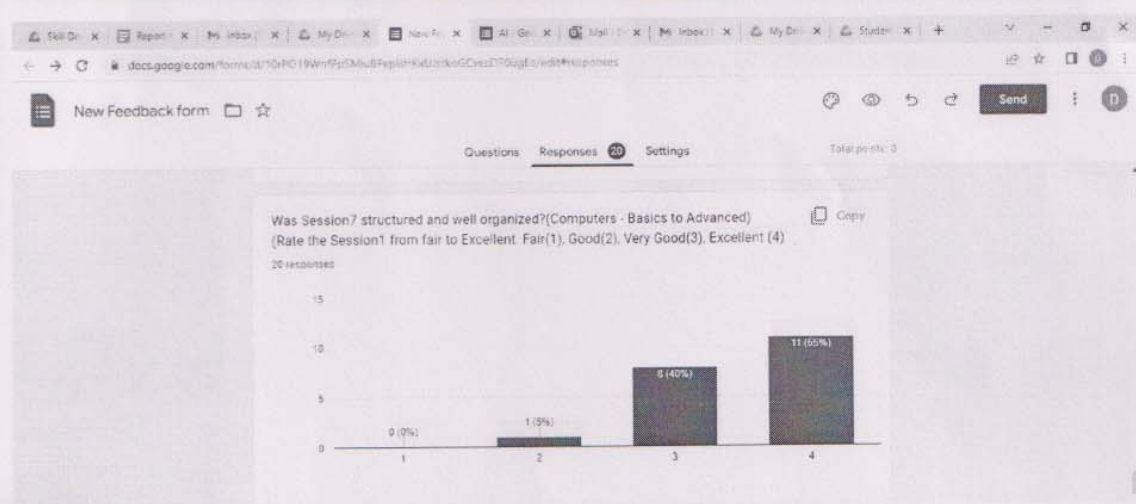
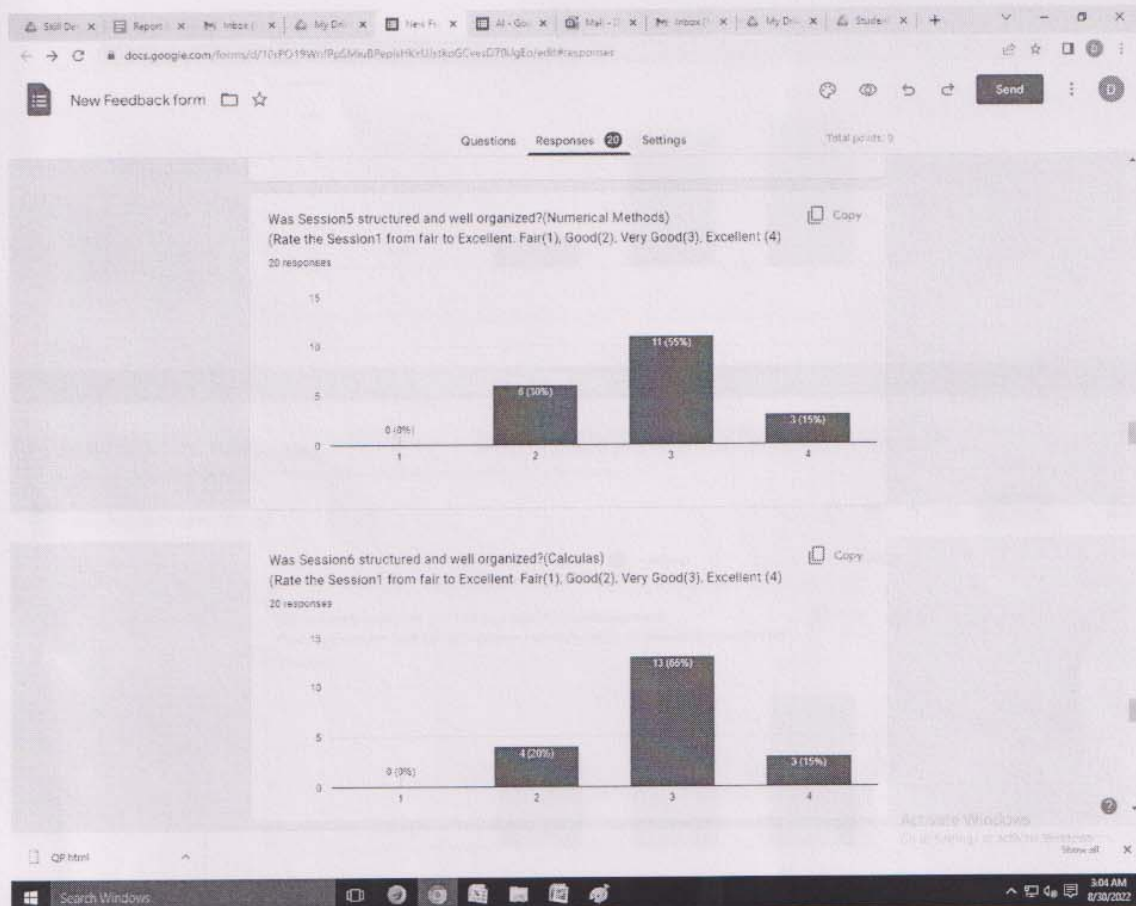
Suki Ragav

Google Chrome browser window showing a Google Forms page titled "New Feedback form". The URL is <https://docs.google.com/forms/d/1DvFO19WnFPdMouBRepluHxUjtskoGvied70MgEwle8t#responses>. The page displays the "Responses" tab with 20 responses. A list of names is visible on the left, including Sivaram, Priethi.T, M.Yomethan, Gobiga rajmohan, Elamathi.N, Suwiles antony, Suki Ragav, Dinesh singh, and Yogeshwaran. The right side shows a large empty area for a chart or table. The Windows taskbar at the bottom shows the time as 2:58 AM on 8/30/2022.

Google Forms page titled "New Feedback form" showing a pie chart for the question "Department". The chart displays two categories: "CS with Artificial Intelligence & Machine Learning" (45%) and "CS with Data Analytics" (55%). The "Responses" tab is selected, showing 20 responses. The "Copy" button is visible next to the chart. The Windows taskbar at the bottom shows the time as 2:58 AM on 8/30/2022.









Nallamuthu Gounder Mahalingam College

(Autonomous)

Re-Accredited by NAAC and ISO 9001:2015 Certified Institution

Affiliated to Bharathiar University, Coimbatore

Pollachi – 642 001

Name of the Programme : Skill Based Development Programme on Foundations of Mathematics and Computer Science

Department : B.Sc Computer Science with Data Analytics & B.Sc Computer Science with AI and ML

Name of the Organizer : Dr. E. Rama Devi and Dr. S. Niraimathi

Category : Skill Based Development Programme

Date : 16.08.2022 to 26.08.2022

No. of Days : 7

Sessions - 10

No. of Participants: 29

In Collaboration with: GVG Vishalakshi College for Women, Udumalpet and PA College of Engineering and Technology, Pollachi

Target Audience: First Year Students

Beneficiaries of the Event: Students

Link to the Activity report on the website:

Event ID: IQAC/2022-23/AUG/016

Enclosure:

1. Programme Schedule
2. Detailed Session Report of the Event
3. Photo
4. Attendance (Name, Designation / Roll No, Signature)
5. Feed Back Form
6. Questions

**SKILL BASED DEVELOPMENT PROGRAMME ON FOUNDATIONS OF
MATHEMATICS AND COMPUTER SCIENCE**

Department of Computer Science with Data Analytics

Department of Computer Science with AI and ML

IQAC Ref. No. IQAC/2022-23/AUG/016

AGENDA

Date	Session	Topics covered	Faculty
16.08.2022	A.N (2.00 p.m to 4.00 p.m)	Matrix Operations & Set theory	Dr. B. Azhagusundari NGM College Pollachi
17.08.2022	A.N (2.00 p.m to 4.00 p.m)	Number Theory & Types of Equations (Linear Algebra)	Ms. G. AngayarKanni NGM College Pollachi
18.08.2022	A.N (2.00 p.m to 4.00 p.m)	Probability & Statistics, Mathematical Logic	Ms. A. Kalaivani NGM College Pollachi
22.08.2022	A.N (2.00 p.m to 4.00 p.m)	Operations Research, Functions & Relations	Ms. S. Sharmila NGM College Pollachi
23.08.2022	F.N(10.00 a.m to 1.00 p.m)	Numerical Methods	Ms. Jayalakshmi G.V.G College Udumalpet
	A.N (2.00 pm to 4.00 p.m)	Calculus	Dr. Gandhimathi P.A College of Technology Pollachi
25.08.2022	FN (11.00pam – 1.00pm)	Computers - Basic to Advanced	Dr. E. Rama Devi NGM College Pollachi
25.08.2022	AN (2.00pm – 4.00pm)	Applications of Artificial Intelligence	Dr. S. Niraimathi NGM College Pollachi
26.08.2022	FN(10.00am – 12.00pm)	Basics of Data Management	Dr. K. Thilagam NGM College Pollachi
26.08.2022	AN (2.00pm – 4.00pm)	Introduction of IOT	Mrs. Thavapriya NGM College Pollachi

Dean-Academic

Dean- Research

HOD

Principal

Detailed Report of the Skill Based Development Programme

Title

Skill Based Development Programme on Foundations of Mathematics and Computer Science

Date: 16.08.2022 to 26.08.2022

Preamble

Skill Based Development Programme on Foundations of Mathematics and Computer Science has been jointly conducted by the Department of Computer Science with Data analytics and Department of Computer Science with Artificial Intelligence and Machine Learning from 16.08.2022 to 26.08.2022 (10 Sessions) at NGM College for the First Year Students of both the programmes

Objective

- To bridge the gap between subjects studied at school level and subjects they would be studying in degree level
- To brush up the fundamental knowledge of mathematics and computer science of the students and prepare them for current course

Methodology

- Action plan of the bridge course is prepared well in advance and get it approved by respective HOD and Dean
- Power point presentation, chalk and talk methods have been adopted for the theory subjects.
- Hands on training and interactive sessions are conducted for laboratory sessions.

Event Outcome

As per the results of the quiz conducted at the end of the Skill Development Programme, it is evident that most of the students who attended the programme have gained the knowledge and skills of basic concepts of Mathematics and Computer subjects. And on average, 75% of marks was scored by students.

Participants Profile

A total of 29 students from Department of Computer Science with Data Analytics and Department of Computer Science with AI and ML were participated

Description of the Program

The Skill based Development Programme was inaugurated by Dr. Saravana Babu Dean-Academic and Dr. Umapathy, Dean- Research along with the inaugural speech highlighting the importance of the programme.

Session 1

Resource Person: Dr. B. Azhagusundari, Associate Professor, Department of BCA, NGM College, Pollachi

Title: Matrix Operations and Set Theory

Date: 16.08.2022

Dr. B. Azhagusundari narrated the basic concepts of Matrix and its operations. She extended her presentation to set theory and its applications. She also explained how these topics are useful to the computer field and especially in the field of Data analytics and Artificial Intelligence and Machine Learning

Session 2

Resource Person: Mrs.G.Angayarkanni, Assistant Professor, Department of Computer Science, NGM College, Pollachi

Title: Number Theory and Types of Equations

Date: 17.08.2022

In this session, number theory and type of equations were delivered. Mrs.G.Angayarkanni, clearly explained the concept of number theory which helps discover interesting relationship between sorts of numbers and to prove that these are true. She also explained the concept of Linear equation and linear algebra which is the most important skill set for machine learning. She gave a brief idea of usage of Linear algebra in data pre-processing, data transformation and model evaluation

Session 3

Resource Person: Ms.A. Kalaivani, Assistant Professor, Department of Computer Technology, NGM College, Pollachi

Title: Probability and Statistics, Mathematical Logic

Date: 18.08.2022

Ms. Kalaivani taught the prerequisite knowledge in the fundamental concept of probability and statistics & mathematical logic. She taught how probability, statistics & mathematical logic are

strongly connected in deriving algorithms in data analytics. She also gave thorough information on some of the mathematics terminologies, definitions, dependent events, independent events, conditional probability, real-world examples, mathematical logic-based terms, propositions on data, problems, the way that statistics provides the procedures for deriving results from sample data, and also explained how the data examinations and evaluation are done with small data as well as mentioned the strengths and major role of mathematics concepts in artificial intelligence and machine learning projects.

Session 4

Resource Person: Mrs. S. Sharmila, Assistant Professor, Department of Computer Science, NGM College, Pollachi

Title: Operations Research, Functions and Relations

Date: 22.08.2022

Mrs. Sharmila introduces the fundamentals of Operations Research and its functions. She explained how to solve the linear programming problems using appropriate techniques and optimization solvers, interpret the results obtained. She explained the optimal strategy for Minimization of Cost of shipping of products from source to Destination/ Maximization of profits of shipping products using various methods, finding initial basic feasible and optimal solution of the Transportation problems

Session 5

Resource Person: Mrs. Jeyalakshmi, Assistant Professor, Department of Mathematics, GVG College, Udumalpet

Title: Numerical Methods

Date: 23.08.2022

The main objective of this session is to learn the procedure of simultaneous linear algebraic equations using direct and iterative methods. Simultaneous linear algebraic equations which is used in the field of Science and engineering was solved using Cramer's rule and matrix methods. These methods however become tedious when the number of unknowns in the system is large. Thereby various numerical methods such as Gauss elimination method, Gauss Jacobi method, Jacobi method, Gauss Seidel method and relaxation method for finding the solutions were developed which are well suited for implementation in computers. The students will be able to create, analyse, and implement algorithms to solve problems.

Session 6

Resource Person: Dr. Gandhimathi, Assistant Professor, Department of Science and Humanities, PA College of Technology, Pollachi

Title: Calculus

Date: 23.08.2022

Dr. Gandhimathi introduced the concept of calculus that deals with the properties of derivatives and integrals of quantities such as area, volume, velocity, acceleration, etc., by processes initially dependent on the summation of infinitesimal differences. It helps in determining the changes between the values that are related to the functions. She also explained three main tools such as limits, derivatives, and integrals for analysing and describing the behaviour of functions. She also insisted the students to use these tools to solve applications-oriented problems.

Session 7

Resource Person: Dr. E. Rama Devi, Associate Professor, Department of Computer Science with Data analytics, NGM College, Pollachi

Title: Computers – Basics to Advanced

Date: 25.08.2022

Dr. E. Rama Devi gave the awareness on the foundations of Computer Science from the Scratch and she explained in detail about the Organisation of Computer. She detailed the concept of primary storage, secondary storage and the concept of processors. She also gave the detailed awareness on the types of software and translator. She explained the important terminology like compiler, assembler, operating system and interpreter. She introduced the concept of data, and explained the recent technologies related to data like Data Mining and Big Data. She also gave the awareness on the advanced technologies like Cloud Computing, Data Science, Artificial Intelligence, Machine Learning, Internet of Things, Hacking and Cybersecurity.

Session 8

Resource Person: Dr. S. Niraimathi, Associate Professor, Department of Computer Science with AI and ML, NGM College, Pollachi

Title: Applications of Artificial Intelligence

Date: 25.08.2022

Dr.S. Niraimathi handled this session on Applications of Artificial Intelligence. This session threw the insight into the nuances of AI and its use cases. She highlighted the applications of AI

in almost all the domain in the real world and environment of its usability. She also covered the inter domain of AI and Analytics, AI and IOT and other inter domain applications.

Session 9

Resource Person: Dr. K. Thilagam, Assistant Professor, Department of Computer Science with Data Analytics, NGM College, Pollachi

Title: Data Management

Date: 26.08.2022

The objective of this session is to provide the students an insight about data, and its representation in computers and the terminologies used in data processing. Dr. Thilagam motivated the students to know the techniques used in storing and processing data in the computer. She also provided the foundation for the students to study the techniques used in handling large volumes of data and also the techniques for analysing data and deriving useful information specific to various applications. The students were eager to know about Big data, Cloud storage and also its impact on the society and in various industries. They understood the need of Data analysis and its application in Machine learning.

Session 10

Resource Person: Mrs.M.Thavapriya, Assistant Professor, Department of Computer Science, NGM College, Pollachi

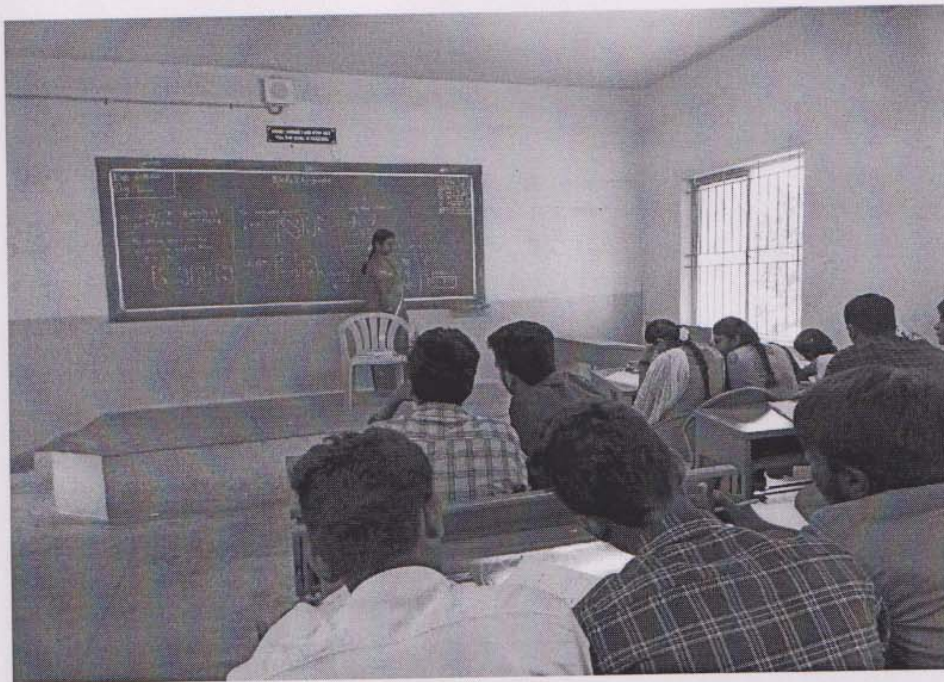
Title: Introduction to IOT

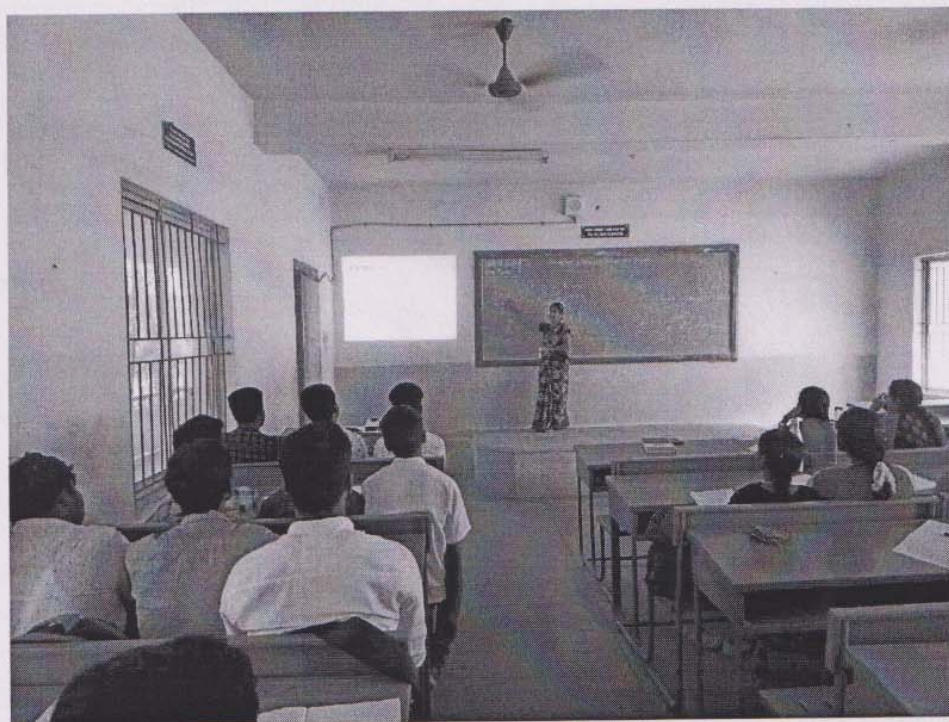
Date: 26.08.2022

Mrs. Thavapriya introduced the concept of Internet of Things which is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human to human or human to computer interaction. She also gave the awareness of IOT on various applications like agriculture, Healthcare, Insurance etc. She gave the hands on experience on the usage of Raspberry Pi.

Photos







NGM COLLEGE, POLLACHI

Skill Based Development Programme on Foundations of Mathematics and
Computer Science from 16.08.2022 to 22.08.2022

Department of Computer Science with Data analytics

Attendance Report

Sn o	Name	16.08.2022	17.08.2022	18.08.2022	22.08.2022	23.08.2022	25.08.2022	26.08.2022
1	Dharani R	Dharani R	Dharani R	Dharani R	Dharani R	Dharani R	Dharani R	Dharani R
2	Elamathi N	N. Elamathi	N. Elamathi	N. Elamathi	N. Elamathi	N. Elamathi	N. Elamathi	N. Elamathi
3	Gobiga R	R. Gobiga	R. Gobiga	R. Gobiga	R. Gobiga	R. Gobiga	R. Gobiga	R. Gobiga
4	Monisha M	M. Monisha	M. Monisha	M. Monisha	M. Monisha	M. Monisha	M. Monisha	M. Monisha
5	Preethi T	T. Preethi	T. Preethi	T. Preethi	T. Preethi	T. Preethi	T. Preethi	T. Preethi
6	Dinesh Singh S	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh	S. Dinesh Singh
7	Suki Ragav P M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M	P. Suki Ragav M
8	Devanth R	Devanth R	Devanth R	Devanth R	Devanth R	Devanth R	Devanth R	Devanth R
9	Krithik Babu B	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu	B. Krithik Babu
10	Yogeshwaran P	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran	P. Yogeshwaran
11	Suwiss Antony J	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony	J. Suwiss Antony

Dr. E. Rama Devi

(Dr. E. Rama Devi)

26.08.2022

NGM COLLEGE, POLLACHI

Skill Based Development Programme on Foundations of Mathematics and
Computer Science from 16.08.2022 to 22.08.2022

Department of Computer Science with AI and ML

Attendance Report

Sno	Name	16.08.2022	17.08.2022	18.08.2022	22.08.2022	23.08.2022	25.08.2022	26.08.2022
1	Adhitya.J	J.Adhithya	J.Adhithya	J.Adhithya	J.Adhithya		J.Adhithya	J.Adhithya
2	Baranitharan							
3	Binu Wilson	Binu	Binu	Binu	Binu	Binu	Binu	-
4	MohanaPrasath							
5	Sivaram.S		Divoram		Divoram	Divoram	Divoram	
6	Siva Bharathi.M	R.m.s.f.	R.m.s.f.	R.m.s.f.	R.m.s.f.	R.m.s.f.	R.m.s.f.	R.m.s.f.
7	ShafeekAhammed	Shafeek	Shafeek	Shafeek	Shafeek	Shafeek	Shafeek	Shafeek
8	NagaGowtham	T.Nagath	T.Nagath	T.Nagath	T.Nagath	T.Nagath	T.Nagath	T.Nagath
9	Yogesh.T	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh
10	Yogeshwaran.S	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh
11	Yomadhan.M	YOMADHAN	YOMADHAN	YOMADHAN	YOMADHAN	YOMADHAN	YOMADHAN	YOMADHAN
12	Varun	Varun	Varun	Varun	Varun	Varun	Varun	Varun
13	GayathriPriya.N	GayathriPriya	N.Gayathri	N.Gayathri	N.Gayathri	N.Gayathri	N.Gayathri	N.Gayathri
14	Kaviyahareshini.K	Kaviyahareshini	Kaviyahareshini	Kaviyahareshini	Kaviyahareshini	Kaviyahareshini	Kaviyahareshini	Kaviyahareshini
15	KrishnaJayanthi.M	N.Krishna Jayanthi	N.Krishna Jayanthi	N.Krishna Jayanthi	N.Krishna Jayanthi	N.Krishna Jayanthi	N.Krishna Jayanthi	N.Krishna Jayanthi
16	Sandhia.A	A.Sandhia	A.Sandhia	A.Sandhia	A.Sandhia	A.Sandhia	A.Sandhia	A.Sandhia
17	Vaishnavi							
18	Yojana.V	Yojana.V	Yojana.V	Yojana.V	Yojana.V	Yojana.V	Yojana.V	Yojana.V

Chellu's

26.08.2022

(Dr.S. Niraimathi)

Online Examinations on Skill Based Development Programme on Foundations of Mathematics and Computer Science

Department of Computer Science with Artificial Intelligence & Machine Learning and Computer Science with Data Analytics
Skill Based Development Programme on Foundations of Mathematics and Computer Science

niraimathi@ngmc.org Switch account



* Required

Email *

Your email

1. What is Artificial Intelligence? *

1 point

- ☐ Artificial Intelligence is a field that aims to make humans more intelligent
- ☐ Artificial Intelligence is a field that aims to improve the security
- ☐ Artificial Intelligence is a field that aims to develop intelligent machines
- ☐ Artificial Intelligence is a field that aims to mine the data
- ☐ Other:

2. Who is the inventor of Artificial Intelligence? *

1 point

- ☐ Geoffrey Hinton
- ☐ Andrew Ng
- ☐ John McCarthy
- ☐ Jürgen Schmidhuber

3. What is the goal of Artificial Intelligence? *

1 point

- ☐ To solve artificial problems
- ☐ To extract scientific causes
- ☐ To explain various sorts of intelligence
- ☐ To solve real-world problems

4. Which of the following is the branch of Artificial Intelligence? *

1 point

- ☐ Machine Learning
- ☐ Cyber forensics
- ☐ Full-Stack Developer
- ☐ Network Design

5. Which of the following is an application of Artificial Intelligence? *

1 point

- ☐ It helps to exploit vulnerabilities to secure the firm
- ☐ Language understanding and problem-solving (Text analytics and NLP)
- ☐ Easy to create a website
- ☐ It helps to deploy applications on the cloud

6. If set $A = \{1,2,3,4,5\}$ $B = \{2,4,6,8,10\}$ then $A \cup B$ *

1 point

- ☐ $\{1, 2, 3, 4, 5, 2,4,6, 8, 10\}$
- ☐ $\{2, 4\}$
- ☐ $\{1,2,3,4,5,6,7,8,9,10\}$

7. If set $A = \{1,2,3,4,5\}$ $B = \{4,5,6,8,10\}$ then $A - B$ *

1 point

- ☐ $\{1, 2, 3, 4, 5, 6, 8, 10\}$
- ☐ $\{1, 2, 3\}$
- ☐ $\{4\}$
- ☐ $\{1,2,3,5,6,7,8,9,10\}$

8. A collection of well defined object is called *

1 point

- ☐ Graph
- ☐ List
- ☐ Set
- ☐ Vector

9. What is the probability of getting an even number when a dice is thrown? * 1 point

- ☐ 1/6
- ☐ 1/2
- ☐ 1/3
- ☐ 1/4

10. Mean value for 45,32,14,78,56 *

1 point

- ☐ a.46
- ☐ b.40
- ☐ c.32
- ☐ d.45

11. Matrix A= [1 2 3 4] , Matrix B=[4 5 3 1] then A+B=? *

1 point

- ☐ A+B= [5 7 6 4]
- ☐ A+B= [5 7 9 4]
- ☐ A+B= [5 7 6 5]
- ☐ A+B= [5 10 6 4]

12. What is the full form of IIOT? *

1 point

- ☐ A) Index Internet of Things
- ☐ B) Incorporate Internet of Things
- ☐ C) Industrial Internet of Things
- ☐ D) Intense Internet of Things

13. Which of the following is used to capture data from the physical world in IoT devices? * 1 point

- ☐ A) Sensors
- ☐ B) Actuators
- ☐ C) Microprocessors
- ☐ D) Microcontroller

14. Which of the following processor is used in the Raspberry PI 3 IoT device?

* 1 point

- ☐ A) Broadcom BCM2711
- ☐ B) Broadcom BCM2837
- ☐ C) Broadcom BCM2838
- ☐ D) Intel 8085

15. What is the component of an IoT system that executes a program? *

1 point

- ☐ A) A sensor
- ☐ B) A microcontroller
- ☐ C) An actuator
- ☐ D) A digital to analog converter

16. Identify the language preferred for IoT Analytics. *

1 point

- ☐ A) Python
- ☐ B) HTML
- ☐ C) PHP
- ☐ D) C++

17. An event in the probability that will never happen is called as _____. *

1 point

- ☐ a. Unsure event
- ☐ b. Sure event
- ☐ c. Possible event
- ☐ d. Impossible event

18. The sum of the probability of an event and non-event is _____. *

1 point

- ☐ a. 2
- ☐ b. 1
- ☐ c. 0
- ☐ d. none of these

19. In classification, the data are arranged according to ____ 1 point

- ☐ a. Similarities
- ☐ b. Differences
- ☐ c. Percentages
- ☐ d. Ratios

20. 'Ram is in the class or Shivam is in the hospital'. Which one of the following is a negation of the above disjunction? * 1 point

- ☐ a. Ram is not in the class and Shivam is not in the hospital
- ☐ b. Ram is not in the class or Shivam is not in the hospital
- ☐ c. Ram is in the class and Shivamis not in the hospital
- ☐ d. Ram is not in the class and Shivam is in the hospital

21. What will be the probability of getting odd numbers if a dice is thrown? * 1 point

- ☐ a. $1/2$
- ☐ b. 2
- ☐ c. $4/2$
- ☐ d. $5/2$

22. 1. Operations Research approach is _____. * 1 point

- ☐ a. multi-disciplinary
- ☐ b. scientific
- ☐ c. intuitive
- ☐ d. collect essential data

23. The longest path in the network diagram is called ____ * 1 point

- ☐ a. head path
- ☐ b. sub path
- ☐ c. critical path
- ☐ d. sub critical path

24. Service mechanism in a queuing system is characterized by _____

* 1 point

- ☐ a. customers behavior
- ☐ b. servers behavior
- ☐ c. customers in the system
- ☐ d. server in the system

25. A relation R in a set A is called _____, if $(a_1, a_2) \in R$ implies $(a_2, a_1) \in R$, * 1 point
for all $a_1, a_2 \in A$.

- ☐ a. symmetric
- ☐ b. transitive
- ☐ c. equivalence
- ☐ d. non-symmetric

26. Let $A = \{1, 2, 3\}$ and consider the relation $R = \{(1, 1), (2, 2), (3, 3), (1, 2), (2, 3), (1, 3)\}$. Then R is

* 1 point

- ☐ a. reflexive but not symmetric
- ☐ b. reflexive but not transitive
- ☐ c. symmetric and transitive
- ☐ d. neither symmetric, nor transitive

27. _____ is an approximate computation method for solving a mathematical problem which often has no analytical solution.

* 1 point

- ☐ a) Operation Research
- ☐ b) Probability
- ☐ c) Statistics
- ☐ d) Numerical Method

28. The modification of Gauss elimination method is _____ method * 1 point

- ☐ a. Gauss Jordan
- ☐ b. Factorization
- ☐ c. Stirling's
- ☐ d. Bessel's

29. In Gauss elimination method the augmented matrix is reduced to * 1 point

- ☐ a. upper triangular matrix
- ☐ b. identity matrix
- ☐ c. diagonal matrix
- ☐ d. row matrix

30. _____ is a square matrix in which all the elements of principal diagonals are one, and all other elements are zeros. * 1 point

- ☐ a) Null Matrix
- ☐ b) Triangular Matrix
- ☐ c) Identity Matrix
- ☐ d) Diagonal Matrix

31. Which of the following is an iterative method? * 1 point

- ☐ a) Factorization
- ☐ b) Gauss Jordan
- ☐ c) Gauss Seidel
- ☐ d) Gauss Elimination

32. Which of the following is a direct method? * 1 point

- ☐ a) Gauss Seidel
- ☐ b) Gauss Jordan
- ☐ c) Gauss Jacobi
- ☐ d) Gauss elimination

33. In Gauss Jordan method which of the following transformations are allowed?

* 1 point

- ☐ a) Row transformation
- ☐ b) Column transformation
- ☐ c) Diagonal transformation
- ☐ d) Square transformation

34. Which of these is a primitive data type *

1 point

- ☐ a) List
- ☐ b) Class
- ☐ c) Float
- ☐ d) Set

35. Data about data is called _____ *

1 point

- ☐ a) Meta data
- ☐ b) Composite data
- ☐ c) Primitive data
- ☐ d) Mobile data

36. _____ is a Non Linear Data Structure *

1 point

- ☐ a) Array
- ☐ b) Stack
- ☐ c) Queue
- ☐ d) Tree

37. MySQL is an example of _____ *

1 point

- ☐ a) Storage Device
- ☐ b) Database Management System
- ☐ c) Data Structure
- ☐ d) Data Type

38. _____ is the process of examining data sets in order to find trends and draw conclusions about the information they contain. * 1 point

- ☐ a) Data Base
- ☐ b) Data analytics
- ☐ c) Data Storage
- ☐ d) Data Warehouse

39. Computers' Primary Memory _____ *

1 point

- ☐ a) Hard Disk Drive
- ☐ b) CD and DVD
- ☐ c) RAM and ROM
- ☐ d) Flash Array

40. _____ is a collection of data that is huge in volume, yet growing exponentially with time.

* 1 point

- ☐ a) Data Base
- ☐ b) Big Data
- ☐ c) Data Mart
- ☐ d) Multimedia

41. The general form of the linear equation in two variables x, y is * 1 point

- ☐ A) $ax + by + c = 0, a \neq 0$
- ☐ B) $ax + by + c = 0, |a| + |b| = 0$
- ☐ C) $ax + by + c = 0, |a| + |b| \neq 0$
- ☐ D) $ax + by + c = 0, a \neq 0, b \neq 0$

42. What is the GCD of 48, 18, 0? *

1 point

- ☐ a) 24
- ☐ b) 2
- ☐ c) 3
- ☐ d) 6

43. The polynomial equation $x(x + 1) + 8 = (x + 2)(x - 2)$ is *

1 point

- ☐ A) linear equation
- ☐ B) quadratic equation
- ☐ C) cubic equation
- ☐ D) bi-quadratic equation

44. Given a rational number $-5 \div 9$ This rational number can also be known as

* 1 point

- ☐ A) a natural number
- ☐ B) a whole number
- ☐ C) a fraction
- ☐ D) a real number

45. A vector space or a linear space is a group of objects called vectors, added collectively and multiplied by numbers, called _____

* 1 point

- ☐ A) Scalars
- ☐ B) Vectors
- ☐ C) Subspace
- ☐ D) Transformation

46. RAM is a _____ memory *

1 point

- ☐ Volatile
- ☐ Non Volatile
- ☐ Both Volatile and non Volatile
- ☐ None of the above

47. One Terabyte (1 TB) is equal to *

1 point

- ☐ A : 1028 GB
- ☐ B : 1012GB
- ☐ C : 1000 GB
- ☐ D : 1024 GB

48. Select the system software *

1 point

- ☐ Java
- ☐ Compiler
- ☐ C++
- ☐ Python

49. SQL stands for *

1 point

- ☐ A.Structured Query Language
- ☐ B.Structured Query List
- ☐ C.Simple Query Language
- ☐ D.None of these

50. Which technology is used to resolve hacking? *

1 point

- ☐ AI
- ☐ BigData
- ☐ IOT
- ☐ Cyber security

A copy of your responses will be emailed to the address you provided.

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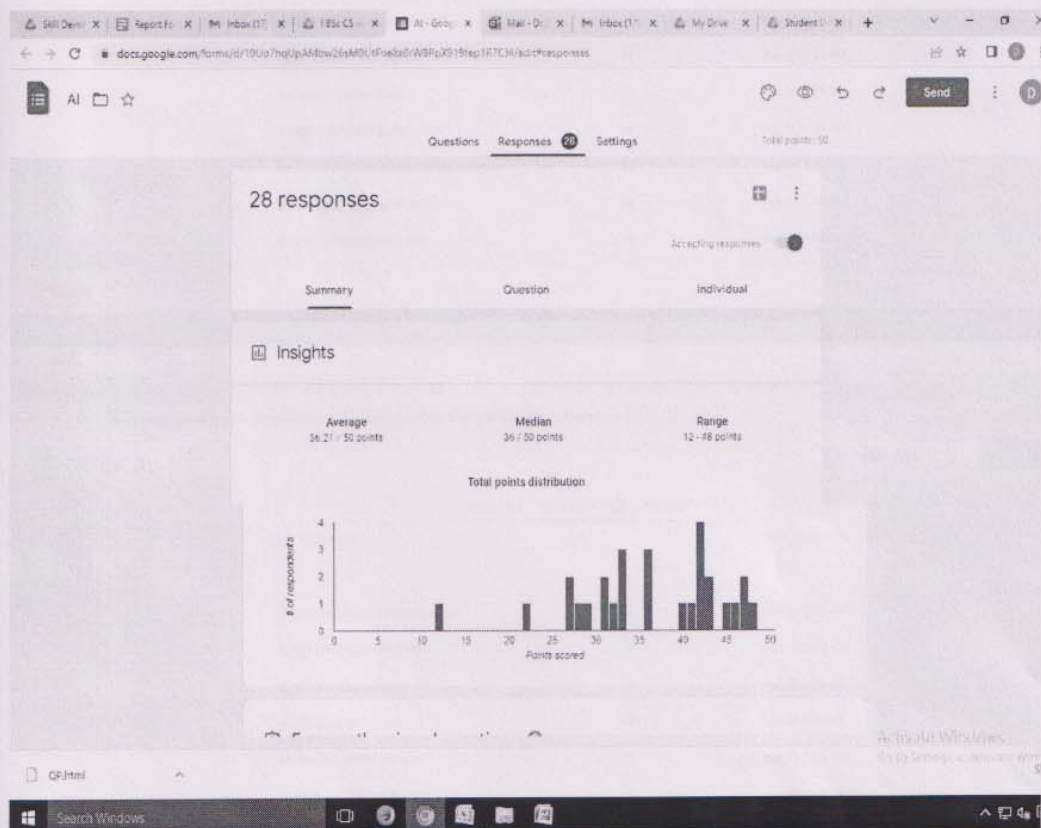
reCAPTCHA
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Google Forms

Report on Online Test on Skill Based Development Programme on Foundations of Mathematics and Computer Science

30.08.2022



Google Chrome browser window showing a Google Forms interface. The address bar displays the URL: docs.google.com/forms/d/19UoThqUpAMbWz6sMCUjTne6x8vU8PpX919ep1RTCJ4/edit#responses. The form is titled "Scores" and shows a list of responses. The "Responses" tab is selected, showing 20 responses. The "Scores" section displays a table with columns: Email, Score / 50, and Score released. The table lists 8 responses, all released on Aug 30 2:09 AM. The "Release scores" button is visible. The Windows taskbar at the bottom shows the time as 2:29 AM on 8/30/2022.

Email	Score / 50	Score released
mbharathi521@gmail.com	33	Aug 30 2:09 AM
yoganavijayakumar@gmail.com	29	Aug 30 2:09 AM
gayathiripriyagayathiripriya85@gmail.com	33	Aug 30 2:09 AM
harirajanto@gmail.com	27	Aug 30 2:09 AM
sandhiya4270238@gmail.com	31	Aug 30 2:09 AM
kavayaharshinikannappan749@gmail.com	22	Aug 30 2:09 AM
gobigaramohan@gmail.com	36	Aug 30 2:09 AM
tnagagowtham@gmail.com	45	Aug 30 2:09 AM

Google Chrome browser window showing the same Google Forms interface. The address bar displays the URL: docs.google.com/forms/d/19UoThqUpAMbWz6sMCUjTne6x8vU8PpX919ep1RTCJ4/edit#responses. The form is titled "Scores" and shows a list of responses. The "Responses" tab is selected, showing 20 responses. The "Scores" section displays a table with columns: Email, Score / 50, and Score released. The table lists 8 responses, all released on Aug 30 2:09 AM. The "Release scores" button is visible. The Windows taskbar at the bottom shows the time as 2:30 AM on 8/30/2022.

Email	Score / 50	Score released
yogeshsky20058973@gmail.com	41	Aug 30 2:09 AM
tyogesa0104@gmail.com	36	Aug 30 2:09 AM
binukokkati@gmail.com	40	Aug 30 2:09 AM
jedhithiyee@gmail.com	47	Aug 30 2:09 AM
prethisuv2005@gmail.com	31	Aug 30 2:09 AM
varunkingoftheworld@gmail.com	43	Aug 30 2:09 AM
monishamurugesan05@gmail.com	32	Aug 30 2:09 AM
ram919568@gmail.com	36	Aug 30 2:09 AM
krishnajayanthi2005@gmail.com	28	Aug 30 2:09 AM

docsgoogie.com/forms/d/19Uo7higUpAMbw26uM0UjR9e6xdrw8FoK919fep1R7C34/edit#responses

AI ☆

Questions Responses 28 Settings Total points: 50

☑ Scores

Release scores

krithe484@gmail.com	27	Aug 30 2:09 AM
shafeekahammed03@gmail.com	42	Aug 30 2:09 AM
dineshcingh26 7 2004@gmail.com	42	Aug 30 2:09 AM
elamathiel512@gmail.com	42	Aug 30 2:09 AM
cheeranyogesh0@gmail.com	48	Aug 30 2:09 AM
sukiragav2005@gmail.com	46	Aug 30 2:09 AM
swissentony@gmail.com	43	Aug 30 2:09 AM
ravichandran123deva@gmail.com	42	Aug 30 2:09 AM
yomadhanm@gmail.com	33	Aug 30 2:09 AM

GP.html

baranthiala839@gmail.com	12	Aug 30 2:09 AM
mastermohan17082004@gmail.com	47	Aug 30 2:09 AM

GP.html

Search Windows

2:31 AM 8/30/2022

Feedback on Skill Based Development Programme on Foundations of Mathematics and Computer Science (16.08.2022 – 26.08.2022)

The image displays two screenshots of a Google Forms interface titled 'New Feedback form'. Both screenshots show the 'Responses' tab with a list of 20 responses. The top screenshot shows the first seven names, and the bottom screenshot shows the last seven names of the same list.

Top Screenshot Response List:

- Monisha
- Dharani R
- Adhithya
- N gayathirpriya
- Naga Gowtham
- K. Kavyaharshini
- Sandhya
- Yojana
- Krishnagayanthi

Bottom Screenshot Response List:

- M. Mohana prasath
- Shafeek Ahammed R
- Sivaram
- Preethi T
- M Yomathan
- Gobiga rajmohan
- Elamathi N
- Suwiss antony
- Suki Ragav

Google Chrome browser window showing a Google Forms page titled "New Feedback form". The URL is docs.google.com/forms/d/1DvFO19WnFPdMouBRepluHxUJlkoGCueD70MgEnle8t#responses. The page displays the "Responses" tab with 20 responses. A list of names is visible on the left: Sivaram, Priethi.T, M.Yomethan, Gobiga rajmohan, Elamathi.N, Suwiles antony, Suki Ragav, Dinesh singh, and Yogeshwaran. The right side shows a large empty area for a chart. The Windows taskbar at the bottom shows the time as 2:58 AM on 8/30/2022.

Google Forms page titled "New Feedback form" showing a pie chart for the question "Department". The chart displays two categories: "CS with Artificial Intelligence & Machine Learning" (45%) and "CS with Data Analytics" (55%). The "Responses" tab is selected, showing 20 responses. A "Copy" button is visible next to the chart. The Windows taskbar at the bottom shows the time as 2:58 AM on 8/30/2022.

