



# **POPE'S COLLEGE(AUTONOMOUS)**

(Accredited by NAAC-II Cycle with 'A' Grade (CGPA: 3.28)  
C.S.I.-THOOTHUKUDI-NAZARETH DIOCESE  
SAWYERPURAM-628 251

## **DEPARTMENT OF MATHEMATICS**

### **A Report on Online Quiz Program**

**"MATHEMATICS AND ITS APPLICATIONS"**

**25<sup>th</sup> May 2022**

  
PRINCIPAL  
POPE'S COLLEGE  
(Autonomous)  
SAWYERPURAM-628251

## Report

An Online Quiz Program on **“Mathematics and its applications”** was organized by the Department of Mathematics on 25<sup>th</sup> May 2022. The Programme was initiated by our Principal Dr.R.Immanuel. The Programme was organized with the encouragement and support rendered by our Head of the Department Dr. S.Thilaga leelavathi. A total of 142 participants attended the programme.

Questions were given in the undergraduate level covering several fields such as Calculus, Algebra, Real Analysis, Complex Analysis, Sequences, Linear Algebra and Statistics. An e – certificate was issued to all those participants who have secured above 60% in answering all the 25 questions. Out of 142 participants 91 of them scored above 60% and received the certificate for their meritorious performance. The Online Quiz Programme was efficiently designed and organized well by the Co – ordinators Dr. H. Velwet Getzimah, Assistant Professor and Dr.S.Kuberal, Assistant Professor, Department of Mathematics.



**POPE'S COLLEGE AUTONOMOUS**

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Sawyerapuram - 622251, Theothukudi District, Tamil Nadu, India



## Department of Mathematics

Presents

### Online Quiz Program

on

# Mathematics and its applications

Link for Quiz

Date: 25/05/2022

[Click here](#)  
(The link will be activated from 5am to 11pm)

Principal

**Dr. R. Immanuel**  
Pope's College

Head of the Department

**Dr. S. Thilaga Leelavathi**  
Pope's College

Coordinators

**Dr. H. Velwet Getzimah**  
Assistant Professor,  
Pope's College  
Mobile: 9442486236

**Dr. S. Kuberal**  
Assistant Professor,  
Pope's College  
Mobile: 9769653230



# POPE'S COLLEGE(AUTONOMOUS),

Accredited by NAAC-II Cycle with 'A' Grade(CGPA:3.28)

Sawyerpuram- 628251, Thoothukudi District, Tamil Nadu, India



## Participation Certificate

Certificate ID: {{certificate id}}

This participation certificate is proudly presented to

**{{full name}}**

who has participated and passed in Online Quiz Program on "**{{title}}**"  
organized by *Department of Mathematics*, Pope's College(Autonomous),  
Tamil Nadu on 25th May 2022.

  
Dr.S. Kuberal  
Coordinator

  
Dr.H. Velwet Getzimah  
Coordinator

  
Dr.S. Thilaga Leelavathi  
Head of the Department

  
Dr.R. Immanuel  
Principal

## Online Quiz Questions Link:

[https://docs.google.com/forms/d/1pn96r23\\_qmXJJGYABekX1Hr4Df9WDBnmSMZtOclgyOU/edit](https://docs.google.com/forms/d/1pn96r23_qmXJJGYABekX1Hr4Df9WDBnmSMZtOclgyOU/edit)

## Online Quiz Responses Link:

[https://docs.google.com/forms/d/1pn96r23\\_qmXJJGYABekX1Hr4Df9WDBnmSMZtOclgyOU/edit#responses](https://docs.google.com/forms/d/1pn96r23_qmXJJGYABekX1Hr4Df9WDBnmSMZtOclgyOU/edit#responses)



Find the characteristic equation of the following  
Matrices:

1.  $A = \begin{bmatrix} 1 & 2 \\ 4 & 3 \end{bmatrix}_{2 \times 2}$

The characteristic eqn. of the matrix is,

$$|A - \lambda I| = 0$$

$$\text{or } \lambda^2 - S_1\lambda + S_2 = 0 \quad \text{--- (1)}$$

$S_1 =$  Sum of the diagonal elts

$$= 1 + 3 = 4$$

$$S_2 = |A| = \begin{vmatrix} 1 & 2 \\ 4 & 3 \end{vmatrix} = 3 - 8 = -5$$

$$\text{(1)} \Rightarrow \boxed{\lambda^2 - 4\lambda - 5 = 0}$$

2.  $A = \begin{bmatrix} 3 & 0 \\ 5 & 6 \end{bmatrix}$

The char. eqn. of A is

$$|A - \lambda I| = 0$$

$$\text{or } \lambda^2 - S_1\lambda + S_2 = 0 \quad \text{--- (1)}$$

$S_1 =$  Sum of the main diagonal elts

$$= 3 + 6 = 9$$

$$S_2 = |A| = \begin{vmatrix} 3 & 0 \\ 5 & 6 \end{vmatrix} = 18 - 0 = 18$$

$$\therefore \text{(1)} \Rightarrow \lambda^2 - 9\lambda + 18 = 0$$

③.  $A = \begin{bmatrix} 1 & 0 \\ 2 & 4 \end{bmatrix}$

The char. eqn. of A is  $|A - \lambda I| = 0$

$$\text{or } \lambda^2 - S_1\lambda + S_2 = 0$$



## Description



### Importance of Personality development

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**Dr. M. Jeevitha**

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About



# II. B. Com

2021



Announce something to your class



**New material: Unit 4**

21 Oct 2021



Add class comment



**New material: University question**

23 Sept 2021



Add class comment



**New material: Unit 3**

23 Sept 2021



Add class comment



**Anitha Rajathi**



  
Stream

  
Classwork

  
People



Classroom > I Allied Phy/Chem (2021-22)

Home | Calendar | Teaching | To review | I Allied Phy/Chem (2021-22) | II B.Sc., Mathematics(2021-22) | III B.Sc., Mathematics (2021-22) | I Phy/Chem(2020-21) | III B.Sc.,(2020-21) | II- B.Sc.,(2020-21)

Stream | **Classwork** | People | Grades

+ Create

All topics

- Syllabus | Posted Feb 23, 2022
- Formulas | Posted Feb 23, 2022
- Google meet link-- 1 | Edited Sep 21, 2021
- Allied Phy/Chem- Syllabus | Posted Sep 18, 2021

Unit I Vector Calculus

Classroom > II B.Sc., Mathematics(2021-22)

Home | Calendar | Teaching | To review | I Allied Phy/Chem (2021-22) | **II B.Sc., Mathematics(2021-22)** | III B.Sc., Mathematics (2021-22) | I Phy/Chem(2020-21) | III B.Sc.,(2020-21) | II- B.Sc.,(2020-21) | Enrolled

Stream | **Classwork** | People | Grades

**II B.Sc., Mathematics(2021-22)**

Class code: 6mrskm5

Announce something to your class

Upcoming: No work due soon. View all

kuberal selladurai posted a new material: Problems GT | Nov 1, 2021

kuberal selladurai | Oct 27, 2021

Students put your attendance here