

T. K. M. College of Arts and Science, Kollam

Department of Physics

Report on Bridge Course (2023-2026 Batch)

Name of the Department : Physics

Nature of special coaching : Bridge Course

Class/Batch : S1 / 2023-2026 Batch

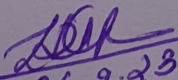
Subject/Course : Physics

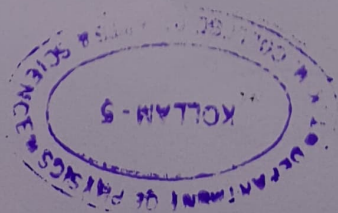
Number of students selected for coaching : 20

Reason for the selection : New admission

The Department of Physics organized a bridge course to provide S1 batch students with a comprehensive understanding of the basics of physics, preparing them for their upcoming academic year. The syllabus of the course is designed and delivered by experienced faculty members of the department to develop foundational knowledge and skills necessary for the students to enter into the graduate level physics program.

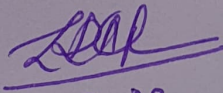
The course spanned for 10 hours from 1st August to 10th August. The classes were engaged by the following faculty members of the Physics department - Dr. Shargina Beegum, Ms. Aparna L. R., Dr. Fairoos C. and Dr. Anshad A: 20 students benefited from the course. The course covered the fundamental concepts of Physics including mechanics, electromagnetism, scalars and vectors, nano science and some basic mathematical concepts like logarithm, differentiation and integration which provides a bridge between their previous knowledge and upcoming graduate program. The course also gave them an idea on the career opportunities after B.Sc. Physics. Students were made to actively participate in the sessions by providing them with problem-solving exercises, discussions and interactive lectures led by the expert faculty members. The bridge course serves as an effective platform for S1 batch students to refresh and strengthen their foundational knowledge of physics for their future academic endeavors.

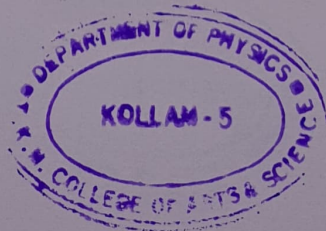

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List of students enrolled for the Bridge Course

Sl. No.	Student's Name
1.	Sreenu R. S.
2.	Kavya Gopan
3.	Devika S. J.
4.	Lekshmi Krishna C.
5.	Harin Raj A. S.
6.	Amal A. M.
7.	Devika L. H.
8.	Sreeram M. R.
9.	Niranjana D. S.
10.	Adithya Sunil
11.	Abhiram S. J.
12.	Adithyan S. J.
13.	Navya Binu
14.	Neha Binu
15.	A. Amal
16.	Alfiya M.
17.	Muhammed Hassan
18.	Hashmi S. H.
19.	Aswin S. Kumar
20.	Vaishnavi M. S.


26.9.23



TKM College of Arts & Science

Department of Physics

FDP (CBCSS) B Sc 2023-2026 Batch

Syllabus for Bridge Course (10 Hr)

Module I What after B Sc Physics? (2 Hr)

Career counselling - Job opportunities-Both about scientific and non-scientific job – Higher studies higher education centres-Research Institutes-Competitive Exams like CSIR/UGC, JEST, GATE,JAM private sector opportunities.

Module II Syllabus of the B SC Physics (2 Hr)

About CBCSS- open course -Scheme of Continuous Evaluation-the content of all core papers-
-History of physics

Module III Mathematics as a companion (4 Hr)

Logarithm-Laws of Logarithm-product rule-quotient rule- power rule-base changing rule-Different systems of Logarithms

Quadratic equations-polynomials-equations reducible to quadratic form-Nature of roots of quadratic form

Differential Equations-Types of differential equations

Basic Differentiation and integration

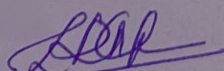
Scalars and vectors-Multiplication of vectors-Scalars and vector fields-Dot product and cross product – gradient, divergence and curl of a vector

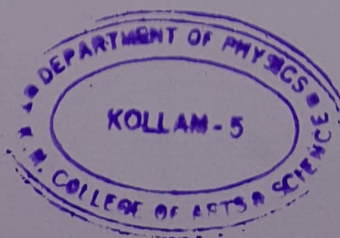
Module IV Advertisement – World of Physics(2 hrs)

Four Realms of Physics, Four kinds of forces, Unification of Physical theories. Nano science, 2-D materials, Smart materials, Quantum Computing, Medical Science in view of Physics.

Reference

1. Mathematical Physics – Satya Prakash
2. Text book of Mathematics NCERT


26.9.23





REGISTER OF ATTENDANCE &

Name of the Institute BRIDGE COURSE 01-08-2023 to 10/08/2023

Sl. No.	Admission No.	NAMES	0/8	2/8	2/8	3/8	7/8	9/8	9/8	10/8	11/8	
			Tue	We	Th	Fr	Sat	Sun	Mon	Tue	Wed	Th
1.	59206	Sreenu R.S.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
	59208	Sreenath H.A.	A	A	A	A	A	A	A	A	A	
2.	59213	Kavya Gopan	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
3.	59216	Devika S.J.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
4.	59217	Lekshmi Krishna C.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
5.	59224	Harin Raj A.S.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
6.	59226	Amal A.M. (TC)	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
7.	59230	Devika L.H.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
8.	59233	Sreeram M.R.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
	59235	G.S. Gopika.	A	A	A	A	A	A	A	A	A	
9.	59238	Niranjana D.S.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
10.	59239	Adithya Sunil	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
11.	59240	Abhiram S.J.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
12.	59241	Adithyan S.J.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
	59245	Amalu Sathesh S.S.	A	A	A	A	A	A	A	A	A	
13.	59248	Navya Binu	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
	59304	Sreesanth A.S.	Pre	Pre	Pre	A	A	A	Pre	Pre	Pre	
14.	59300	Neha Binu.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
15.	59329	A.Amal	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
16.	59333	Alfiya M.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
17.	59336	Muhammad Hassan A.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
	59350	Ahsan N. Muttasseril	A	A	A	A	A	A	A	A	A	
18.	59355	Hashmi S.H.	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
19.	59364	Aswin S. Kumar	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	Pre	
		Vrinda S.R.	A	Pre	Pre	Pre	Pre	Pre	A	A	A	
20.		Vaishnavi M.S.	A	A	A	Pre	Pre	Pre	Pre	Pre	Pre	
21.		Akhil N. <	not joined									Pre
22.		Arya Anil R. <	not joined									Pre
23.		Abid Khan S. (14/08/23)	not joined									Pre
24.		Fathima S. (14/08/23)	not joined									Pre
25.		Jaseena J. (14/08/23)	not joined									Pre
			Number present M			Daily E						
Hajira S. (14/08/23)												

DEPARTMENT OF PHYSICS
KOLLAM
GOVT. SENIOR SCHOOL
COLLEGE OF ARTS & SCIENCES
KOLLAM

TKM College of Arts & Science, Kollam
Department of Physics
Bridge Course 2023-36 Timetable

Sl.No.	Date	Time	Name of Faculty	Topic Covered	No.Of students
1.	01.08.23 Tuesday	9:30-10:30	Aparna L. R.	Syllabus for the B.Sc. Physics About CBCSS, Open Course	20
2.	02.08.23 Wednesday	9:30-10:30	Aparna L. R.	Scheme of continuous evaluation, the content of all core papers, History of Physics	20
3.	02.08.23 Wednesday	10:30-11:30	Dr. Shargina Beegum.	Scalars and Vectors	20
4.	02.08.23 Wednesday	11:30-12:30	Dr. Fairoos C.	What after B.Sc. Physics? Competitive Exams, Private sector Opportunities	20
5.	03.08.23 Thursday	9:30-10:30	Dr. Anshad A.	Basic differentiation and integration	20
6.	03.08.23 Thursday	10:30-11:30	Dr. Shargina Beegum.	Four realms of Physics, Four kind of forces, unification of Physical theories	20
7.	07.08.23 Monday	9:30-10:30	Dr. Fairoos C.	Logarithm	20
8.	07.08.23 Monday	10:30-11:30	Dr. Shargina Beegum.	Nano science, types, smart materials,	20
9.	09.08.23 Wednesday	9:30-10:30	Dr. Anshad A.	Quantum computing, medical science in view of physics	20
10.	09.08.23 Wednesday	10.30-11.30	Dr. Fairoos C.	Quadratic equations and differential equations	20

Course Instructors

- : Ms. Aparna L. R., Assistant Professor & HOD, Dept. of Physics
- : Dr. Shargina Beegum, Assistant Professor, Dept. of Physics
- : Dr. Fairoos C., Assistant Professor, Dept. of Physics
- : Dr. Anshad A., Assistant Professor, Dept. of Physics