



SCIM GOVERNMENT COLLEGE

RASTRAPATHI ROAD TANUKU

Website: [scim\\_gdctanuku.ac.in](http://scim_gdctanuku.ac.in)

Email.Id: [gdctanuku@gmail.com](mailto:gdctanuku@gmail.com)

# **BRIDGE COURSE**

## **2022-23**

SCIM GOVERNMENT COLLEGE TANUKU  
DEPARTMENT OF PHYSICS  
BRIDGE COURSE ATTENDANCE

Date:-03.11.2022

Topic:- Unit-I (Units & Measurements, Vectors)

S. No	Name of the student	Group	Signature
1	K. Pavan Chandu	I MPCs	K. Chandu
2	N. Benay	I MPCs	N. Benay
3	K. D. Pallavi	I MPCs	K. D. Pallavi
4	CH. Harika	I MPCs	CH. Harika
5	G. Madhuri	I MPCs	G. Madhuri
6	ch. Meghana	I MPCs	ch. Meghana
7	P. Sri Vani	I MPC	P. Sri Vani
8	K. Bhavani Jyothi	I MPC	K. Bhavani Jyothi
9	R. Saivashini	I MPC	R. Saivashini
10	J. Tarun Raj	I MPCs	J. Tarun Raj
11	M. Grace E. Noel	I MPCs	M. G. E. Noel
12	S. Pavan Kumar	I MPCs	S. Pavan Kumar
13	G. Ravi Teja	I MPCs	G. Ravi Teja
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Instructor

  
Lecturer-In-charge

  
Principal

SCIM GOVERNMENT COLLEGE TANUKU  
DEPARTMENT OF PHYSICS  
BRIDGE COURSE ATTENDANCE

Date:-04.11.2022

Topic:- Unit-2: Mechanics, Waves & Oscillations

S. No	Name of the student	Group	Signature
1	P. Sri Vani	I MPC	P. Srivani
2	Ch. Meghana	I MPCs	Ch. Meghana
3	K.D. Pallavi	I MPCs	K.D. Pallavi
4	R. Saivarshini	I MPC	R. Saivarshini
5	CH. Harika	I MPCs	Ch. Harika
6	G. Madhavi	I MPCs	G. Madhavi
7	K. Bhavani Jyothi	I MPC	K. Bhavani Jyothi
8	N. Benaru	I MPCs	N. Benaru
9	J. Tarun Raj	I MPCs	J. Tarun Raj
10	K. Pavan Chandra	I MPCs	K. Chandra
11	Gr. Ravi Teja	I MPCs	Gr. Ravi Teja
12	S. Pavan Kumar	I MPCs	S. Pavan Kumar
13	M. Kashik	I MPCs	M. Kashik
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Instructor

  
Lecturer-in-charge

  
Principal

SCIM GOVERNMENT COLLEGE TANUKU  
DEPARTMENT OF PHYSICS  
BRIDGE COURSE ATTENDANCE

Date:-05.11.2022

Topic:- Unit-2: Mechanics, Waves & Oscillations

S. No	Name of the student	Group	Signature
1	G. Madhuri	I <sup>st</sup> MPCs	G. Madhuri
2	P. Sri Vani	I MPC	P. Sri Vani
3	K.D. Pallavi	I MPCs	K.D. Pallavi
4	Ch. Harika	I MPCs	Ch. Harika
5	R. Sai Varshini	I MPC	R. Sai Varshini
6	K. Bhavani Jyothi	I MPC	K. Bhavani Jyothi
7	Ch. Meghana	I MPCs	Ch. Meghana
8	J. Tarun Raj	I MPCs	J. Tarun Raj
9	N. Benay	I MPCs	N. Benay
10	K. Pavan Chandra	I MPCs	K. Chandra
11	M. Akhil	I MPCs	M. Akhil
12	M. G. E. N. D. C.	I MPCs	M. G. E. N. D. C.
13	S. Pavan Kumar	I MPCs	S. Pavan Kumar
14	K. Rajeev	I MPCs	K. Rajeev
15	M. P. S. N. D. Prasad	Ist M.P.Cs	M. P. S. N. D. Prasad
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Instructor

  
Lecturer in-charge

  
Principal



SCIM GOVERNMENT COLLEGE TANUKU

## BRIDGE COURSE PRE TEST (PHYSICS)

K. Pavan chandru

I MPCs

Answer ALL questions

Each question carries ONE mark

Total Marks: 20

10  
20

~~J. J. Thomson~~  
K. chandru

1. Define Newton's second law? ✓
2. What is the relation between energy and momentum?
3. Define vector and give one example?
4. Define Work? ✓
5. Which of the following is Einstein mass-energy relation?  
a)  $E=mc^2$  b)  $E=mp$  c)  $E=mc$  d)  $E=mc^2$
6. What is the dimensional formula for force? ✓
7. Write different types of waves?
8. Define Newton's Gravitational Law?
9. State the law of conservation of energy? ✓
10. State work-energy theorem? ✓
11. Define Snell's law ✓
12. What is the equation for magnetic moment (M)? ✓  
a)  $M=ml$  b)  $M=m \times 2l$  c)  $M=I$  d)  $E=m+2l$
13. What is the relation between B and H?  
a)  $B=MH$  b)  $B=IH$  c)  $B=KH$  d)  $B=H\mu_0$
14. 1amu mass is equivalent to ----MeV  
a) 923.5 b) 913.5 c) 931.5 d) 935.5
15. Define mass defect?
16. What are nucleons? ✓
17. Define Coulombs law?
18. Who Neutron discovered?  
a) J.J. Thomson b) Einstein c) Chadwick d) Rutherford
19. Positron is -----charged particle?
20. What is the value of charge of electron?

student has to improve  
the knowledge on basics  
especially on optics & mechani

~~M. K. Chandra~~

K. chandru

# BRIDGE COURSE PRE TEST | 2022

SCIM GOVERNMENT COLLEGE TANUKU  
BRIDGE COURSE PRE TEST (PHYSICS)

rl. Benay  
I MPCS.

Total Marks: 20

Answer ALL questions

Each question carries ONE mark

7/20

rl. Benay

1. Define Newton's second law?
2. What is the relation between energy and momentum?
3. Define vector and give one example? *దాదాశా పరిమాణం కలిగినది*
4. Define Work? *పని = బలం x స్థానభ్రంశం*
5. Which of the following is Einstein mass-energy relation?  
a)  $E=mc^2$  b)  $E=mp$  c)  $E=mc$  d)  $E=mc^2$
6. What is the dimensional formula for force?  $F = MLT^{-2}$
7. Write different types of waves?
8. Define Newton's Gravitational Law? *ఒక వస్తువు పై ఒక దానిపై బలం ప్రయోగించబడినప్పుడు*
9. State the law of conservation of energy?
10. State work-energy theorem?
11. Define Snell's law
12. What is the equation for magnetic moment (M)?  
a)  $M=ml$  b)  $M=m \times 2l$  c)  $M=l$  d)  $E=m+2l$
13. What is the relation between B and H?  
a)  $B=MH$  b)  $B=IH$  c)  $B=KH$  d)  $B=H$
14. 1amu mass is equivalent to ----MeV  
a) 923.5 b) 913.5 c) 931.5 d) 935.5
15. Define mass defect?
16. What are nucleons? *నెక్లియోన్లు*
17. Define Coulombs law?
18. Who Neutron discovered?  
a) J.J.Thomson b) Einstein c) Chadwick d) Rutherford
19. Positron is -----charged particle?
20. What is the value of charge of electron?

Has to practice the important basic & concepts

M. R. Kumar

# BRIDGE COURSE PRE TEST | 2022

SCIM GOVERNMENT COLLEGE TANUKU

## BRIDGE COURSE PRE TEST (PHYSICS)

CH. Harika

2 MPCs

Total Marks: 20

Answer ALL questions

Each question carries ONE mark

10  
20

R. Souvarshini

1. Define Newton's second law?
2. What is the relation between energy and momentum?
3. Define vector and give one example?
4. Define Work?
5. Which of the following is Einstein mass-energy relation?  
a)  $E=m$  b)  $E=mp$  c)  $E=m \cdot d$  d)  $E=mc^2$  ✓
6. What is the dimensional formula for force?
7. Write different types of waves?
8. Define Newton's Gravitational Law?
9. State the law of conservation of energy?
10. State work-energy theorem?
11. Define Snell's law
12. What is the equation for magnetic moment (M)?  
a)  $M=ml$  b)  $M=m \times 2l$  c)  $M=l$  d)  $E=m+2l$  ✓
13. What is the relation between B and H?  
a)  $B=MH$  b)  $B=IH$  c)  $B=KH$  d)  $B=H$   $B=\mu_0 \mu_r H$  ✓
14. 1amu mass is equivalent to ----MeV  
a) 923.5 b) 913.5 c) 931.5 d) 935.5 ✓
15. Define mass defect?  $\frac{m_{\text{Total}}}{\text{Total}}$  ✓
16. What are nucleons?
17. Define Coulombs law?  $F = \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r^2}$  ✓
18. Who Neutron discovered?  
a) J.J. Thomson b) Einstein c) Chadwick d) Rutherford
19. Positron is  $^{+ve}$  charged particle?  $^{+ve}$  ✓
20. What is the value of charge of electron?



2022-2023

## Remedial classes

46

S.NO.	Reg NO.	Class/Group	Name of the Student	Signature
1	223926201001	IBA (HEP)	Bodapati. Jnana Sai	B. Jnana Sai
2	1002	IBA (HEP)	Bonthu Ramalakshmi	B. Ramalakshmi
3	1003	IBA (HEP)	chitturi Nagadevi	C. Nagadevi
4	1004	IBA (HEP)	Dumma Gowthami	D. Gowthami
5	1005	IBA (HEP)	Jana Swathi	J. Swathi
6	1006	IBA (HEP)	Kazella Jaya Sridakshmi Derika	K. Jaya Sri Devika
7	1010	IBA (HEP)	Madda Vivek	M. Vivek
8	1011	IBA (HEP)	Mandamaka Prathiba Ambekar	M. Prathiba
9	1013	IBA (HEP)	Mulagapati Sneha	M. Sneha
10	1014	IBA (HEP)	pachipulusu vvsl Deepika	P. Deepika
11	223926247019	IBA (HECA)	chintapalli mahalakshmi	Chmalakshmi
12	7020	IBA (HECA)	Devara Vijaya Kumar	D. Vijay Kumar
13	7021	IBA (HECA)	Kadagalla Bhaskara Mani Kumar	K. Mani Kumar

Topics:

1. Keynesian Theory of Employment

Date: 06-06-2023 to 07-06-2023.

2. Business cycles

Date: 13-06-2023 to 14-06-2023

3. Causes and consequences of Inflation

Date: 22-06-2023 to 23-06-2023

4. Functions of commercial Banks

Date: 10-07-2023 to 11-07-2023

5. Credit control measures of RBI.

Date: 20-07-2023 to 21-07-2023.



Sl. NO.	Rg NO.	Class / Group	Name of the Student	Signature
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Remedial classes were taken to The above students during the zero hour and extra hour from II semester students of The Academic year 2022 - 2023.

B. Sini  
lect in Economics.

## SYLLABUS FOR BRIDGE COURSE IN PHYSICS

Aim of the Bridge course in Physics is

1. To make "Learning of Physics as a pleasant experience".
2. To Bridge "The Intermediate education and graduate education"

Total number of hours allotted: 20

### **Unit-1: Units &Measurements**

**5hrs**

Physical quantity-classification, units- Types of system of units, dimensions, Errors -types,Significant figures, vector product, scalar product, Addition and multiplication of vectors, Vector Laws.

### **Unit-2: Mechanics and oscillations**

**5 Hrs**

Distance, displacement, velocity, acceleration force, work, linear momentum .Newton's laws of motion, mass and weight .power, energy-types, conservation laws

Periodic motion, S.H.M, characteristics of SHM, free, forced and damped vibrations, resonance, vibrations in stretched string .Sound-characteristics, echo

### **Unit-3: Optics and Heat &Thermodynamics**

**5 Hrs**

Light –properties-Reflection, refraction, Interference, diffraction, polarisation. Laws of reflection& refraction. Refractive index, critical angle and its relation.TIR and its applications. Lens and mirror-types-convex, concave and other and Nomenclature –Focal lenth, focal point, optic centre, radius of curvature, object and image distances. Construction and working of Travelling microscope and spectrometer.

Heat and temperature- units, measurement .Laws of thermodynamics. Thermodynamic variables. Modes of heat transfer-conduction, convection and radiation. EM spectrum. Latent heat, radiation, black body-radiation laws.

### **Unit-4: Electricity and Magnetism, Nuclear physics and Electronics**

**5Hrs**

**Charge,** Current, Electric Potential-units, resistance, ohm's law –laws. Series and parallel connections. Colour coding of resistors. Ammeter, voltmeter and multimeter. Capacitor, Conductors, insulators Power, Consumption of power and KWH. Ac current and its specifications.

General concepts of nucleus. Atomic mass unit, natural radioactivity, Isotopes –applications. Nuclear Reactor.

Semiconductors-types, Band theory.PN junction diode –applications.Transistor-types

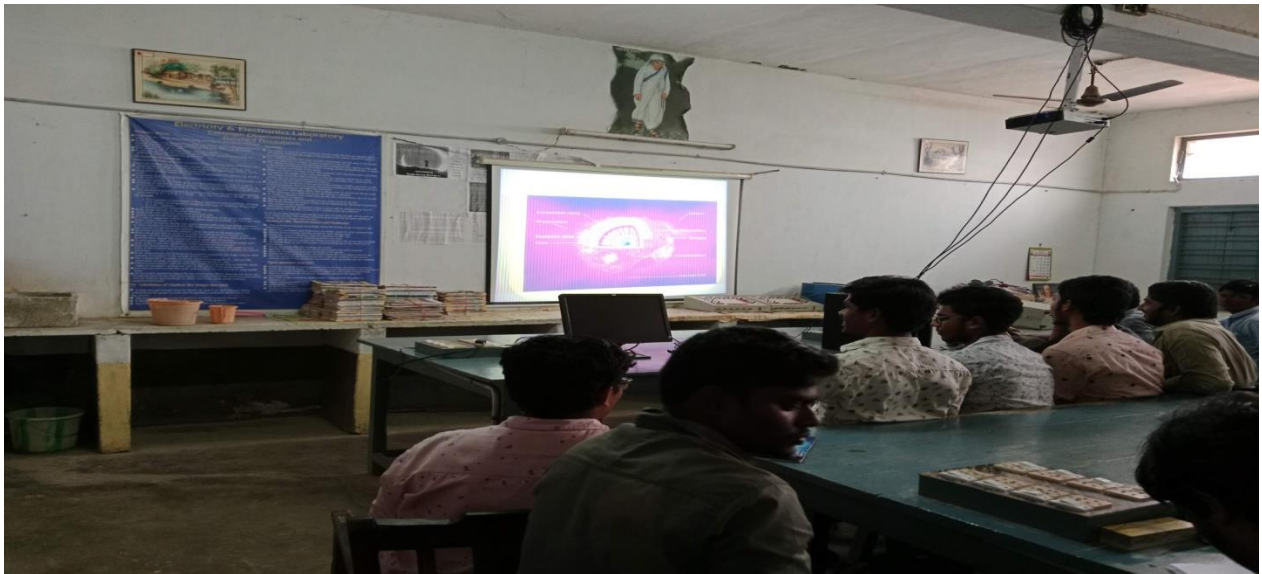
Different number systems. Boolean algebra. Gates-OR,AND,NOT,NOR &NAND





Metric2.2.1

### Teaching by using ICT Tools



### Teaching through Games



## Poster Presentation



## Quiz Activity





## Group Discussions







# SCIM Government College

Tanuku, W.G Dt., A.P. 534211



## STUDENT MENTORING SYSTEM (SMS)

Name of The Student	K. H. Veeranna	
n No/Regd No ar of Admission	21392713 7088	20...21..
ip/ Medium	MECS (English)	
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Mentor Details:

Name: Ch. Kanakangin

Designation: lecturer in electronics

## ATTENDANCE

ATTENDANCE				
	Month & Year	No of working days	No of Days attended	Percentage
1.	SEM-I	NOV £ 2021	25	22
2.		DEC £ 2021	26	24
3.		JAN £ 2022	22	19
4.		FEB £ 2022	23	20
5.	SEM-II	JUNE £ 2022	25	21
6.		JULY £ 2022	25	23
7.		AUG £ 2022	22	21
8.		SEP £ 2022	25	20
9.	SEM-III	NOV £ 2021	25	16
10.		DEC £ 2021	24	15
	SEM-IV			
	SEM-V			
	SEM-VI			

## ACADEMIC PERFORMANCE

semester-I

Object	English	Telugu	L.S	S.D.C	Maths	Ele	Lab	C.S	Lab
Mid-1/Mid-2	20	17	-	-	18	20	-	19	-
Final Grade	F	B+	D	F	F	F	D	F	A+

semester-II

Object									
Mid-1/Mid-2									
Final Grade									

semester-III

Object									
Mid-1/Mid-2									
Final Grade									

semester-IV

Object									
Mid-1/Mid-2									
Final Grade									

semester-V

Object									
Mid-1/Mid-2									
Final Grade									

semester-VI

Object									
Mid-1/Mid-2									
Final Grade									

## STUDENT COUNSELLING

No		Date	Problems Identified	Suggestions given
	SEM-I	8/11/21	Irregular	Motivated
		16/12/21	Lacks Confidence	Motivated
		18/12/21	Depressed	Motivated
	SEM-II	19/1/22	Poor e-learning	Suggestion given
		10/6/22	Less perspective	Tried to improve
		21/6/22	Family problems	Motivated
	SEM-III	17/11/22	Irregular	Counselling given
		20/12/22	Bad hand writing	Some techniques
	SEM-IV			
	SEM-V			







# ACADEMIC PERFORMANCE

Semester-I	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Subject	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Mid-1/Mid-2	19	18	-	-	18	19	-	18	-
Total Grade	B+	A	D	D	F	B	A	C	D

Semester-II	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Subject	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Mid-1/Mid-2									
Total Grade									

Semester-III	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Subject	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Mid-1/Mid-2									
Total Grade									

Semester-IV	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Subject	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Mid-1/Mid-2									
Total Grade									

Semester-V	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Subject	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Mid-1/Mid-2									
Total Grade									

Semester-VI	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Subject	English	Telugu	I.S	S.P.C	Maths	Ele	lab	CS	Lab
Mid-1/Mid-2									
Total Grade									

## STUDENT COUNSELLING

S.No		Date	Problems Identified	Suggestions given
1.	SEM-I	10/1/21	Week Communication	Suggestion Given Tried to improve Action plan given
2.		15/12/21	Poor writing skills	
3.		21/12/21	Poor Time Management	
4.	SEM-II	21/1/22	Irregular	Motivated
5.		8/6/22	Lacks confidence	
6.		20/6/22	Depressed	
7.	SEM-III	17/1/22	Family problems	Motivated suggestion motivated the brave & courage
8.		20/1/22	Family problems	
9.				
10.	SEM-IV			
11.				
12.				
13.	SEM-V			
14.				
15.				
16.	SEM-VI			
17.				
18.				