ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

ವಿತಾಯುಅಧಿನಿಯಮ್೧೯೯೪ರಅಡಿಯಲ್ಲಿಕರ್ನಾಟಕಸರ್ಕಾರದಿಂದಸ್ಥಾಪಿತವಾದರಾಜ್ಯವಿಶ್ವವಿದ್ಯಾಲಯ"ಜ್ಞಾನ ಸಂಗಮ" ಮಚ್ಛೆ, ಬೆಳಗಾವಿ-590018

Visvesvaraya Technological University

(The State University of Govt. Karnataka, Established as per VTU Act 1994)
"JnanaSangama" Machhe, Belagavi-590018, www.vtu.ac.in

Dr. A. S. Deshpande B.E., Tech., Ph.D.
Registrar

Phone: (0831) 2498100
Fax: (0831) 2405467

Ref. No. VTU/BGM/BOS/2021-22/ 709 Date: 29 APR 2022.

NOTIFICATION

Subject: Academic Calendar of IV semester MBA, II semester B.Sc., IV semester B.E./ B.Tech., and (revised) VI semester B.E./B.Tech./B. Plan and (revised) I semester B.E./B.Tech./B.Plan/B.Arch. programs of University regarding...

Reference Hon'ble Vice-Chancellor's approval dated: 25.04.2022

Academic Calendar of IV semester MBA, II semester B.Sc., IV semester B.E./ B.Tech., (**revised**) VI semester B.E./B.Tech./B.Plan., and (**revised**) I semester B.E./B.Tech./ B.Plan./ B.Arch., programs of the University are shown on the 2nd page of this notification.

The Principals of Affiliated, Constituent and Autonomous Engineering Colleges are hereby informed to bring the academic calendar to the notice of all concerned.

Sd/-
REGISTRAR

To,

1. The Principals of all affiliated/ constituent /Autonomous Engineering Colleges under the ambit of VTU Belagavi.
2. The chairperson, Department of Mechanical Engineering /Civil Engineering /Computer Science and Engineering and Business Studies of the University.

Copy to.

1. To the Hon'ble Vice-Chancellor through the secretary to VC, VTU Belagavi for information
2. The Registrar (Evaluation), VTU Belagavi for information.
3. The Regional Directors (I/c) of all the regional offices of VTU for circulation.
4. The Director SMUITI, VTU Belagavi for information and to make arrangements to upload Academic Calendar on the VTU web portal.
5. The Director of Physical Education, VTU Belagavi for information
6. PS to Registrar VTU Belagavi
7. All the concerned Special Officer/s and Caseworker/s of the academic section, VTU, Belagavi

Sd/-
REGISTRAR

Academic Calendar for IV sem MBA / IV semB.E./B.Tech.(**Revised**) VI sem B.E./B.Tech /B.Plan., (**Revised**) B.E./B.Tech./B.Arch./B.Plan., and II sem B.Sc. Programs for AY-2021-22

	VI semester B.E./B.Tech. (Revised)	VI semester B.Plan. (Revised)	IV Semester MBA	IV semester B.E./B.Tech	II semester B.Sc.	I sem B.E./B.Tech./ B.Plan/B.Arch (Revised)
Commencement of Semester	04.04.2022	04.04.2022	09.05.2022	16.05.2022	23.05.2022	13.12.2021
Last Working day of Semester	16.07.2022	16.07.2022	20.08.2022	27.08.2022	05.09.2022	10.05.2022
Practical/Viva-Examination	18.07.2022 To 29.07.2022	18.07.2022 To 29.07.2022	----	01.09.2022 To 08.09.2022	06.09.2022 To 09.09.2022	28.05.2022 To 04.06.2022
Theory Examinations	01.08.2022 To 20.08.2022	01.08.2022 To 20.08.2022	22.08.2022 To 14.09.2022	12.09.2022 To 30.09.2022	12.09.2022 To 28.09.2022	12.05.2022 To 27.05.2022
Internship	21.08.2022 To 10.09.2022	21.08.2022 To 10.09.2022	---	---	---	
Internship Viva-Voce/ Project viva	---	---	---	---	---	
Summer Project / Professional training / Organization Study	---	---	----	----	----	
Submission of the report to University	----	---	11.07.2022 To 22.07.2022	---	---	
Commencement of NEXT Semester	19.09.2022	19.09.2022	----	10.10.2022	10.10.2022	06.06.2022

Please Note:

- The academic sessions for EVEN semesters should commence from the **dates** mentioned above.
- All the students of VI semesters B.E./B.Tech. programs have to join the VII semester after completion of their **INTERNSHIP** during the above-mentioned duration.
- **The Institute/Department shall plan to have extra classes to complete the requisite hours of teaching and learning as per the scheme.**
- Faculty should conduct additional tutorial classes in blended mode to solve the doubts of the students.

...ulty should conduct additional tutorial classes in blended mode to solve the doubts of the students.

- The faculty/staff shall be available to undertake any work assigned by the university.
- Notification regarding the Calendar of Events relating to the conduction of University **Examinations** will be issued by the Registrar (Evaluation) from time to time.
- Academic Calendar **may be modified** based on guidelines/directions issued in the future by MHRD/UGC/AICTE/State Government.
- Academic Calendar is also applicable for **Autonomous Colleges.** In case any changes are to be effected by Autonomous Colleges in the academic terms and examination schedule, they could do so with the approval of the University.

REGISTRAR

...3/3

||JAI SRI GURUDEV||

AIT	College Calendar of Events	Format No.	ACD01
		Issue No.	01
		Rev. No.	00

Academic Year : 2021-2022 **Semester :Even**

Sl No.	Date	Event	Remarks
1	4 Apr 2022	Commencement of 6th and 8th semester B.E. classes.	
2	14 Apr 2022	Holiday, Mahaveer Jayanthi, Ambedkar Jayanthi	
3	3 May 2022	Holiday, Basava Jayanthi, Ramzan	
4	21 May 2022	First Test Cycle for 8th semester B.E. Students	
5	23 May 2022	Commencement of 3rd semester B.E. classes.	
6	27 May 2022 to 29 May 2022	First Test Cycle for 6th semester B.E. Students	
7	30 May 2022	Workshop on "Importance of Administrative tasks " for non-teaching staff	
8	6 June 2022	Commencement of 2nd semester B.E. classes.	
9	10 June 2022	Second Test Cycle for 8th semester B.E. Students	
10	14 June 2022	Ethnic Day for 8th semester Students	
11	15 June 2022	Induction Program for first year Students	
12	16 June 2022	Graduation Day for 8th semester Students	
13	17 June 2022 & 18 June 2022	Chunchana-2022	
14	25 June 2022 to 27 June 2022	Second Test Cycle for 6th semester B.E. Students	
15	30 June 2022	Third Test Cycle for 8th semester B.E. Students. Last Working Day for 8th semester B.E. classes.	
16	1 July 2022 to 3 July 2022	First Test Cycle for 4th and 2nd semester B.E. Students	
17	4 July 2022 to 20 July 2022	Theory Examinations for 8th semester B.E. Students	

18	14 July 2022 to 16 July 2022	Third Test Cycle for 6th semester B.E. Students	
19	16 July 2022	Last Working Day for 6th semester B.E. classes.	
20	18 July 2022 to 29 July 2022	Practical Examinations for 6th semester B.E. Students	
21	21 July 2022 to 30 July 2022	Internship viva-voce/Project Viva for 8th Semester Students	
22	31 July 2022 to 2 Aug 2022	Second Test Cycle for 4th and 2nd semester B.E. Students	
23	1 Aug 2022 to 20 Aug 2022	Theory Examinations for 6th semester B.E. Students	
24	9 Aug 2022	Holiday, Muharram	
25	15 Aug 2022	Holiday, Independence Day	
26	27 Aug 2022 to 29 Aug 2022	Third Test Cycle for 4th and 2nd semester B.E. Students	
27	31 Aug 2022	Holiday, Ganesha Chaturthi	
28	1 Sept 2022 to 8 Sept 2022	Practical Examinations for 4th semester B.E. Students	
29	11 Sept 2022 to 29 Sept 2022	Theory Examinations for 2nd semester B.E. Students	
30	12 Sept 2022 to 30 Sept 2022	Theory Examinations for 4th semester B.E. Students	
31	1 Oct 2022 to 10 Oct 2022	Practical Examinations for 2nd semester B.E. Students	

Note: Add any other events like Guest Lecture, National/International Conference ,Seminars, etc in individual department calendar of events .

Copy to:

1. All HOD's
2. Placement Officer
3. Establishment Section
4. Dhi Team

PRINCIPAL
AIT, Chickmagalur

AIT	Class Timetable	Format No.	ACD06
		Issue No.	01
		Rev. No.	00

Department	E&E	Semester	4	Section	
Academic Year	2021-22	Room No.	E-113 (E BLOCK, GROUND FLOOR)		
Class Coordinator					

Period → / Day / Time →	1	2		3	4		5	6	7
	9:00-10:00	10:00-11:00		11:15-12:15	12:15-1:15		2:30-3:20	3:20-4:10	4:10-5:00
Monday	T&D	M-4	BREAK	EFT	PG&E	LUNCH	→*Tutorial class*←		
Tuesday	EM	T&D		OA&LICs	M-4		KANNADA	KANNADA	Tutorial class
Wednesday	PG&E	→EM LAB-2 [NHS,MBV,MSD](B1)← →OA&LICS LAB [PB,KBV](B2)←					OA&LICs	EM	T&D
Thursday	OA&LICs	EM	BREAK	M-4	EFT		→EM LAB-2 [NHS,MBV,MSD](B2)← →OA&LICS LAB [PB,KBV](B1)←		
Friday	EFT	PG&E		T&D	EM		→*Tutorial class*←		
Saturday	M-4	EFT		OA&LICs	PG&E		→*Tutorial class*←		

Allocation of Subjects

Theory

Subject Code	Title	Faculty Name	Faculty Code
18MAT41	COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS(M-4)		
18EE42	POWER GENERATION AND ECONOMICS(PG&E)	JAYADEVAMURTHY M R	MRJ
18EE43	TRANSMISSION AND DISTRIBUTION(T&D)	MOHANA KUMARA S D	MSD
18EE44	ELECTRIC MOTORS(EM)	SRIDHAR N H	NHS
18EE45	ELECTROMAGNETIC FIELD THEORY(EFT)	JOYSUN D SOUZA	JD
18EE46	OPERATIONAL AMPLIFIERS AND LIC'S(OA&LICS)	KAVYA B V	KBV

Practical:

Subject Code	Title	Faculty Name	Faculty Code
18EEL47	ELECTRICAL MACHINES LABORATORY-2	SRIDHAR N H, VINAYA KUMARA M B, MOHANKUMARA S D	NHS, MBV, MSD
18EEL48	OPAMP AND LINEAR ICs LABORATORY	POSHITHA B, KAVYA B V	PB, KBV

Signature of the time table co-coordinator

HOD's Signature

Dr. G. R. Veerendra, M.E.,Ph.D
Prof. and Head
Dept. of Electrical & Electronics Engg.
A.I.T., Chikkamagaluru-577102
Karnataka - INDIA

6 . Course Information

6 . 1 Course Content

Title of the Course : ELECTROMAGNETIC FIELD THEORY
Semester : 4

Academic Year : 2021-22

Subject Code : 18EE45	IA Marks : 40
Hours/week : 4	Total Hours : 50
Exam Hours : 3	Exam Marks : 60
Course Plan Author : Joysun	Planned Date : 2022-05-23
Approved by : Dr G R Veerendra	Approved Date : 2022-05-23

Objectives:

1 . To study different coordinate systems for understanding the concept of gradient, divergence and curl of a vector.

2 . To study the application of Coulomb's Law and Gauss Law for electric fields produced by different charge configurations.

3 . To evaluate the energy and potential due to a system of charges.

4 . To study the behavior of electric field across a boundary between a conductor and dielectric and between two different dielectrics.

5 . To study the magnetic fields and magnetic materials.

6 . To study the time varying fields and propagation of waves in different media.

Course Outcomes (COs) :

1 . Use different coordinate systems , Coulomb\u2019s Law and Gauss Law for the evaluation of \nelectric fields produced by different charge configurations.

2 . Calculate the energy and potential due to a system of charges & Explain the behavior of\nelectric field across a boundary conditions.

3 . Explain the Poisson\u2019s, Laplace equations and behavior of steady magnetic fields.

4 . Explain the behavior of magnetic fields and magnetic materials.

5 . Asses time varying fields and propagation of waves in different media

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6 . Course Information

6 . 1 . 1 Course Syllabus

Objectives:
Title of the Course : ELECTROMAGNETIC FIELD THEORY
Subject Code : 18EE45

Module 1

Vector Analysis :

Scalars and Vectors, Vector algebra, Cartesian co, ordinate system, Vector Components and unit vectors, Scalar field and Vector field, Dot product and Cross product, Gradient of a scalar field, Divergence and Curl of a vector field, Co – ordinate systems: cylindrical and spherical, relation between different coordinate systems, Expression for gradient, divergence and curl in rectangular, cylindrical and spherical co, ordinate systems, Numerical

Electrostatics :

Coulomb's law, Electric field intensity and its evaluation for (i) point charge (ii) line charge (iii) surface charge (iv) volume charge distributions, Electric flux density, Gauss law and its applications, Maxwell's first equation (Electrostatics), Divergence theorem, Numerical

Module 2

Energy and Potential :

Energy expended in moving a point charge in an electric field, The line integral, Definition of potential difference and potential, The potential field of a point charge and of a system of charges, Potential gradient, The dipole, Energy density in the electrostatic field, Numerical

Conductor and Dielectrics :

Current and current density, Continuity of current, Metallic conductors, conductor's properties and boundary conditions, Perfect dielectric materials, capacitance calculations, Parallel plate capacitor with two dielectrics with dielectric interface parallel to the conducting plates, Numerical

Module 3

Poisson's and Laplace Equations :

Derivations and problems, Uniqueness theorem, Steady magnetic fields: Biot , Savart's law, Ampere's circuital law, The Curl, Stokes theorem, Magnetic flux and flux density, Scalar and vector magnetic potentials, Numerical

Module 4

Magnetic force :

Force on a moving charge and differential current element, Force between differential current elements, Force and torque on a closed circuit, Numerical

Magnetic Materials and Magnetism :

Nature of magnetic materials, magnetisation and permeability, Magnetic boundary conditions, Magnetic circuit, inductance and mutual inductance, Numerical

Module 5

Time Varying Fields and Maxwell's Equations :

Faraday's law, Displacement current, Maxwell's equations in point form and integral form, Numerical

Uniform plane wave :

Wave propagation in free space and in dielectrics, Pointing vector and power considerations, Propagation in good conductors, skin effect, Numerical

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6 . Course Information

6 . 1 . 2 Text Books and Reference Books

TEXT BOOKS :

1 . Engineering Electromagnetics William H Hayt et al McGraw Hill 8 thEdition, 2014

2 . Principles of Electromagnetics Matthew N. O. Sadiku Oxford 6 th Edition, 2015

REFERENCE BOOKS :

1 . Fundamentals of Engineering Electromagnetics David K. Cheng Pearson 2014

2 . Electromagnetism -Theory (Volume -1) -Applications (Volume-2) AshutoshPramanik PHI Learning 2014

3 . Electromagnetic Field Theory Fundamentals Bhag Guru et al Cambridge 2005

4 . Electromagnetic Field Theory RohitKhurana Vikas Publishing 1 st Edition,2014

5 . Electromagnetics J. A. Edminister McGraw Hill 3 rd Edition, 2010

6 . Electromagnetic Field Theory and Transmission Lines GottapuSasibhushana Rao Wiley 1st Edition, 2013

HOD

6 . Course Information

6 . 2

Semester : 4 **Section :** A **Course :** ELECTROMAGNETIC FIELD THEORY

Period	Planned			Execution		
	Date	Topic	Source material to be referred	Date	Topic	Source material to be referred
			1			
1	2022-05-23	Scalars and Vectors, Vector algebra, Cartesian co,ordinate system		2022-05-23	Scalars and Vectors, Vector algebra, Cartesian co, ordinate system	Text 1
2	2022-05-26	Vector Components and unit vectors, Scalar field and Vector field, Dot product and Cross product		2022-05-30	VectorComponents and unit vectors, Scalar field and Vector field, Dot product and Cross product	Text 1
3	2022-05-27	Gradient of a scalar field, Divergence and Curl of a vector field, Co – ordinate systems: cylindrical and spherical		2022-06-03	Gradient ofa scalar field, Divergence and Curl of a vector field, Co – ordinate systems: cylindrical andspherical	Text 1
4	2022-05-28	relation between different coordinate systems, Expression for gradient, divergence and curl in rectangular		2022-06-04	relation between different coordinate systems, Expression for gradient, divergence and curlin rectangular	Text 1
5	2022-05-30	cylindrical and spherical co,ordinate systems, Numerical		2022-06-11	cylindrical and spherical co, ordinate systems, Numerical	Text 1
6	2022-06-02	Coulomb's law, Electric field intensity and its evaluation for (i) point charge (ii) line charge (iii) surface charge (iv) volume charge distributions		2022-06-13	Coulomb's law, Electric field intensity and its evaluation for (i) point charge (ii) linecharge (iii) surface charge (iv) volume charge distributions	Text 1
7	2022-06-03	Electric flux density, Gauss law and its applications		2022-06-14	Electric flux density, Gauss law and itsapplications	Text 1
8	2022-06-04	Maxwell's first equation (Electrostatics)		2022-06-20	Maxwell's first equation (Electrostatics)	Text 1
9	2022-06-06	Divergence theorem		2022-06-21	Divergence theorem	Text 1
10	2022-06-09	Numerical		2022-06-23	Numerical	Text 1
			2			
11	2022-06-10	Energy expended in moving a point charge in an electric field, The line integral		2022-06-30	Energy expended in moving a point charge in an electric field, The lineintegral	Text 1

12	2022-06-11	Definition of potential difference and potential, The potential field of a point charge and of a system of charges		2022-07-01	Definition of potential difference and potential, The potential field of a point charge and of asystem of charges	Text 1
13	2022-06-13	Potential gradient, The dipole		2022-07-02	Potential gradient, The dipole	Text 1
14	2022-06-16	Energy density in the electrostatic field		2022-07-02	Energy density in the electrostatic field	Text 1
15	2022-06-17	Numerical		2022-07-04	Numerical	Text 1
16	2022-06-18	Current and current density, Continuity of current		2022-07-04	Current and current density, Continuity of current	Text 1
17	2022-06-20	Metallic conductors, conductor's properties and boundary conditions		2022-07-05	Metallic conductors, conductor's properties and boundary conditions	Text 1
18	2022-06-23	Perfect dielectric materials, capacitance calculations		2022-07-06	Perfect dielectric materials, capacitancecalculations	Text 1
19	2022-06-24	Parallel plate capacitor with two dielectrics with dielectric interface parallel to the conducting plates		2022-07-07	Parallel plate capacitor with two dielectrics with dielectric interface parallel to theconducting plates	Text 1
20	2022-06-25	Numerical		2022-07-11	Numerical	Text 1
			3			
21	2022-06-27	Derivations and problems		2022-07-12	Derivations and problems	Text 1
22	2022-06-30	Uniqueness theorem		2022-07-14	Uniqueness theorem	Text 1
23	2022-07-01	Steady magnetic fields: Biot		2022-07-21	Steady magnetic fields: Biot	Text 1
24	2022-07-02	Savart's law		2022-07-22	Savart's law	Text 1
25	2022-07-04	Ampere's circuital law		2022-07-23	Ampere's circuital law	Text 1
26	2022-07-07	The Curl		2022-07-25	The Curl	Text 1
27	2022-07-08	Stokes theorem		2022-07-25	Stokes theorem	Text 1
28	2022-07-09	Magnetic flux and flux density		2022-07-25	Magnetic flux and flux density	Text 1
29	2022-07-11	Scalar and vector magnetic potentials		2022-07-28	Scalar and vector magnetic potentials	Text 1
30	2022-07-14	Numerical		2022-07-29	Numerical	Text 1
			4			
31	2022-07-15	Force on a moving charge and differential current element		2022-07-30	Force on a moving charge and differential current element	Text 1
32	2022-07-16	Force on a moving charge and differential current element		2022-08-04	Force on a moving charge and differential current element	Text 1
33	2022-07-18	Force between differential current elements		2022-08-11	Force betweendifferential current elements	Text 1
34	2022-07-21	Force and torque on a closed circuit		2022-08-12	Force and torque on a closed circuit	Text 1
35	2022-07-22	Numerical		2022-08-12	Numerical	Text 1

36	2022-07-23	Nature of magnetic materials, magnetisation and permeability		2022-08-13	Nature of magnetic materials, magnetisation and permeability	Text 1
37	2022-07-25	Magnetic boundary conditions		2022-08-18	Magnetic boundary conditions	Text 1
38	2022-07-28	Magnetic circuit		2022-08-18	Magnetic circuit	Text 1
39	2022-07-29	inductance and mutual inductance		2022-08-19	inductance and mutual inductance	Text 1
40	2022-07-30	Numerical		2022-08-20	Numerical	Text 1
			5			
41	2022-08-01	Faraday's law		2022-08-20	Faraday's law	Text 1
42	2022-08-04	Faraday's law		2022-08-20	Faraday's law	Text 1
43	2022-08-05	Displacement current		2022-08-20	Displacement current	Text 1
44	2022-08-06	Maxwell's equations in point form and integral form		2022-08-22	Maxwell'sequations in point form and integral form	Text 1
45	2022-08-08	Numerical		2022-08-22	Numerical	Text 1
46	2022-08-11	Wave propagation in free space and in dielectrics		2022-08-25	Wave propagation in free space and in dielectrics	Text 1
47	2022-08-12	Pointing vector and power considerations		2022-08-26	Pointing vector and powerconsiderations	Text 1
48	2022-08-13	Propagation in good conductors		2022-08-30	Propagation in good conductors	Text 1
49	2022-08-18	skin effect		2022-08-30	skin effect	Text 1
50	2022-08-19	Numerical		2022-08-30	Numerical	Text 1

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||Jai Sri Gurudev ||

Adichunchanagiri Shikshana Trust (R)

Adichunchanagiri Institute of Technology, Chikmagalur - 577102

Date: 04-05-2022

Internal Test Schedule for eighth Semester

1st Test Cycle

DATE	21-05-2022	21-05-2022
DAY	Saturday	Saturday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM
Subject Code	18XX81	18XX82X

2nd Test Cycle

DATE	10-06-2022	10-06-2022
DAY	Friday	Friday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM
Subject Code	18XX81	18XX82X

3rd Test Cycle

DATE	30-06-2022	30-06-2022
DAY	Thursday	Thursday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM
Subject Code	18XX81	18XX82X

TT/I Co-ordinators: HOD

Dr. C. T. JAYADEVA
Principal
B.E., M.Tech., Ph.D.
Adichunchanagiri Institute of Technology
CHIKKAMAGALURU-577102

Adichunchanagiri Shikshana Trust (R)

Adichunchanagiri Institute of Technology, Chikmagalur - 577102

Date: 04-05-2022

Internal Test Schedule for Sixth Semester

1st Test Cycle

DATE	27-05-2022	27-05-2022	28-05-2022	28-05-2022	29-05-2022
DAY	Friday	Friday	Saturday	Saturday	Sunday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM
Subject Code	18XX61	18XX62	18XX63	18XX64X	18XX65X

2nd Test Cycle

DATE	25-06-2022	25-06-2022	26-06-2022	26-06-2022	27-06-2022
DAY	Saturday	Saturday	Sunday	Sunday	Monday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM
Subject Code	18XX61	18XX62	18XX63	18XX64X	18XX65X

3rd Test Cycle

DATE	14-07-2022	14-07-2022	15-07-2022	15-07-2022	16-07-2022
DAY	Thursday	Thursday	Friday	Friday	Saturday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM
Subject Code	18XX61	18XX62	18XX63	18XX64X	18XX65X

Test Co-ordinator: Mr RSM

Dr. C. T. JAYADEVA
Principal
Adichunchanagiri Institute of Technol
CHIKKAMAGALURU-577102

||Jai Sri Gurudev ||

Adichunchanagiri Shikshana Trust (R)

Adichunchanagiri Institute of Technology, Chikmagalur - 577102

Internal Test Schedule for Fourth Semester

Date: 02-06-2022

1st Test Cycle

DATE	01-07-2022	01-07-2022	01-07-2022	02-07-2022	02-07-2022	03-07-2022	03-07-2022
DAY	Friday	Friday	Friday	Saturday	Saturday	Sunday	Sunday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	03.30 PM to 04.30 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM
Subject Code	18MAT41	18XX42	18KVK/KAK/CPC 49	18XX43	18XX44	18XX45	18XX46

2nd Test Cycle

DATE	31-07-2022	31-07-2022	01-08-2022	01-08-2022	02-08-2022	02-08-2022	02-08-2022
DAY	Sunday	Sunday	Monday	Monday	Tuesday	Tuesday	Tuesday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	03.30 PM to 04.30 PM
Subject Code	18MAT41	18XX42	18XX43	18XX44	18XX45	18XX46	18KVK/KAK/CPC 49

3rd Test Cycle

DATE	27-08-2022	27-08-2022	28-08-2022	28-08-2022	29-08-2022	29-08-2022	29-08-2022
DAY	Saturday	Saturday	Sunday	Sunday	Monday	Monday	Monday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	03.30 PM to 04.30 PM
Subject Code	18MAT41	18XX42	18XX43	18XX44	18XX45	18XX46	18KVK/KAK/CPC 49

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Internal Test Schedule for Second Semester Physics Cycle

Date: 09-06-2022

1st Test Cycle

DATE	01-07-2022	01-07-2022	02-07-2022	02-07-2022
DAY	Friday	Friday	Saturday	Saturday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM
Subject Code	21MAT21	21PHY22	21ELE23	21CIV24

2nd Test Cycle

DATE	31-07-2022	31-07-2022	01-08-2022	01-08-2022
DAY	Sunday	Sunday	Monday	Monday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM
Subject Code	21MAT21	21PHY22	21ELE23	21CIV24

3rd Test Cycle

DATE	27-08-2022	27-08-2022	28-08-2022	28-08-2022
DAY	Saturday	Saturday	Sunday	Sunday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM
Subject Code	21MAT21	21PHY22	21ELE23	21CIV24

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Internal Test Schedule for Second Semester Chemistry Cycle

Date: 09-06-2022

1st Test Cycle

DATE	01-07-2022	01-07-2022	02-07-2022	02-07-2022	03-07-2022
DAY	Friday	Friday	Saturday	Saturday	Sunday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM
Subject Code	21MAT21	21PSP23	21CHE22	21ELN24	21EME25

2nd Test Cycle

DATE	31-07-2022	31-07-2022	01-08-2022	01-08-2022	02-08-2022
DAY	Sunday	Sunday	Monday	Monday	Tuesday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM
Subject Code	21MAT21	21PSP23	21CHE22	21ELN24	21EME25

3rd Test Cycle

DATE	27-08-2022	27-08-2022	28-08-2022	28-08-2022	29-08-2022
DAY	Saturday	Saturday	Sunday	Sunday	Monday
TIME	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM	12.00 PM to 01.00 PM	09.00 AM to 10.00 AM
Subject Code	21MAT21	21PSP23	21CHE22	21ELN24	21EME25

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AIT,Chikkamagaluru

Department of Electrical & Electronics Engineering

I - Internal Assessment

Semester: 4-CBCS 2018
Subject: ELECTROMAGNETIC FIELD THEORY (18EE45)
Faculty: Mr Joysun D Souza

Date: 3 Jul 2022
Time: 09:00 AM - 10:00 AM
Max Marks: 50

PART A

Answer any1 question(s)

Q.No			Marks	CO	PO	BT/CL
1	a	Find the vector E at P(3,-5,-4) due to a point charge of -10μC at (3,0,-7) , a line charge of ρL = 75nC/m along the Y axis and a surface charge of ρS = 120pC/m2 at x = -3m.	13	CO1	PO1, PO2, PO3	L3
	b	State and explain Coulomb's law in vector form. Derive an expression for Electric Field intensity at a point due to many charges.	12	CO1	PO1	L2
2	a	Define Electric Flux density and explain the mathematical interpretation of vectorial evaluation of electric flux density on the basis of Gauss's law	13	CO1	PO1	L2
	b	Three point charges Q1= 10μC, Q2= 20μC and Q3= 30μC are placed at the corners of an equilateral triangle of side 1cm. Find the magnitude of the Electric Field Intensity at the point bisecting the line joining Q2 and Q3	12	CO1	PO1, PO2, PO3	L3

PART B

Answer any1 question(s)

Q.No			Marks	CO	PO	BT/CL
3	a	Find the work done in moving a point charge Q = 3μC from origin to (2m, π/4 rad, π/2 rad) in spherical co-ordinates in the field E = 5 e(- r / 4) ar + (10 / r Sin(θ)) aϕ .	13	CO2	PO1, PO2, PO3	L3
	b	Show that the vector field E is the negative gradient of scalar electric potential V	12	CO2	PO1	L1

4	a	The capacitance of the condenser formed by the two parallel metal sheets, each 100 cm2 in area separated by a dielectric 2 mm thick 2x10-4 µF. a potential of 20 kV is applied to it. Find: 1. Electric flux 2. Potential gradient in kV/m 3. The relative permittivity of the material Electric flux density	13	CO2	PO1, PO2, PO3	L3
	b	Obtain the boundary conditions between Dielectric and Conductors	12	CO2	PO1	L2

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EFT

1st Internals

Answer Scheme

1.a, $\vec{E_1} \Rightarrow 3m$

$\vec{E_2} \Rightarrow 3m$

$\vec{E_3} \Rightarrow 3m$

$\therefore \vec{E} = \vec{E_1} + \vec{E_2} + \vec{E_3} \Rightarrow 3m$

$|\vec{E}| \Rightarrow 1m$

Total = 13m

1.b, Coulomb's law $\Rightarrow 6m$

EFI $\Rightarrow 6m$

Total = 12m

2.a, Definition of Gauss' law $\Rightarrow 3m$

Explanation $\Rightarrow 10m$

Total = 13m

2. b, $\vec{E_1}$ => 2m

$\vec{E_2}$ => 2m

$\vec{E_3}$ => 2m

$\therefore \vec{E} = \vec{E_1} + \vec{E_2} + \vec{E_3}$ => 3m

$|\vec{E}|$ => 3m

Total = 12m

3. a, W => 13m

3. b, Derivation => 12m.

4. a, Electric Flux => 3m

Potential gradient => 4m

Relative Permittivity => 3m

Electric flux density => 3m

Total = 13m

4. b, Boundary Conditions => 12m

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