*You Choose, We Do It*

# St. JOSEPH'S COLLEGE OF ENGINEERING

(An Autonomous Institution)

*We Make You Shine*

# St. JOSEPH'S INSTITUTE OF TECHNOLOGY

St. Joseph's Group of Institutions

Jeppiaar Educational Trust

OMR, CHENNAI - 600 119

27 Years of Excellence ★Since 1901★

10 Years of Excellence ★Since 2011★

## SUMMARY OF CLASS WORK

### RECORD OF ATTENDANCE AND ASSESSMENT

Name of the Staff: N. Jayaprakash, (Ph.D)

Department of the Staff : EEE

Semester From : [illegible] To June '22

Class & Branch : III [illegible] A' ECE

Code No. / Subject Name : [illegible] DEA

## SYLLABUS

**EE8002 DESIGN OF ELECTRICAL APPARATUS** L T P C
3 0 0 3

**OBJECTIVES:**

To impart knowledge about the following topics:

- Magnetic circuit parameters and thermal rating of various types of electrical machines.
- Armature and field systems for D.C. machines.
- Core, yoke, windings and cooling systems of transformers.
- Design of stator and rotor of induction machines and synchronous machines.
- The importance of computer aided design method.

**UNIT I DESIGN OF FIELD SYSTEM AND ARMATURE** 9

Major considerations in Electrical Machine Design – Materials for Electrical apparatus – Design of Magnetic circuits – Magnetising current – Flux leakage – Leakage in Armature. Design of lap winding and wave winding.

**UNIT II DESIGN OF TRANSFORMERS** 9

Construction - KVA output for single and three phase transformers – Overall dimensions – design of yoke, core and winding for core and shell type transformers – Estimation of No load current – Temperature rise in Transformers – Design of Tank and cooling tubes of Transformers. Computer program: Complete Design of single phase core transformer

**UNIT III DESIGN OF DC MACHINES** 9

Construction - Output Equations – Main Dimensions – Choice of specific loadings – Selection of number of poles – Design of Armature – Design of commutator and brushes – design of field Computer program: Design of Armature main dimensions

**UNIT IV DESIGN OF INDUCTION MOTORS** 9

Construction - Output equation of Induction motor – Main dimensions – choice of specific loadings – Design of squirrel cage rotor and wound rotor –Magnetic leakage calculations – Operating characteristics : Magnetizing current - Short circuit current – Circle diagram - Computer program: Design of slip-ring rotor

**UNIT V DESIGN OF SYNCHRONOUS MACHINES** 9

Output equations – choice of specific loadings – Design of salient pole machines – Short circuit ratio – Armature design – Estimation of air gap length – Design of rotor –Design of damper winding – Determination of full load field MMF – Design of field winding – Design of turbo alternators -Computer program: Design of Stator main dimensions-Brushless DC Machines

**TOTAL : 45 PERIODS**

1. Sawhney, A.K., 'A Course in Electrical Machine Design', Dhanpat Rai& Sons, New Delhi, Fifth Edition, 1984.
2. M V Deshpande 'Design and Testing of Electrical Machines' PHI learning Pvt Lt, 2011. 3. Sen, S.K., 'Principles of Electrical Machine Designs with Computer Programmes', Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi, Second Edition, 2009.

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## SUMMARY OF CLASS WORK

RECORD OF ATTENDANCE AND ASSESSMENT

**Name of the Staff:** N. Jeyaprakash. (Ph.D)

**Department of the Staff :** EEE

**Semester From :** Feb '22 **To** June '22

**Class & Branch :** III year EEE 'A' section

**Code No. / Subject Name :** EE8002 - Design of Electrical Apparatus

## SYLLABUS

**EE8002 DESIGN OF ELECTRICAL APPARATUS** L T P C
3 0 0 3

**OBJECTIVES:**

To impart knowledge about the following topics:

- Magnetic circuit parameters and thermal rating of various types of electrical machines.
- Armature and field systems for D.C. machines.
- Core, yoke, windings and cooling systems of transformers.
- Design of stator and rotor of induction machines and synchronous machines.
- The importance of computer aided design method.

**UNIT I DESIGN OF FIELD SYSTEM AND ARMATURE** 9

Major considerations in Electrical Machine Design – Materials for Electrical apparatus – Design of Magnetic circuits – Magnetising current – Flux leakage – Leakage in Armature. Design of lap winding and wave winding.

**UNIT II DESIGN OF TRANSFORMERS** 9

Construction - KVA output for single and three phase transformers – Overall dimensions – design of yoke, core and winding for core and shell type transformers – Estimation of No load current – Temperature rise in Transformers – Design of Tank and cooling tubes of Transformers. Computer program: Complete Design of single phase core transformer

**UNIT III DESIGN OF DC MACHINES** 9

Construction - Output Equations – Main Dimensions – Choice of specific loadings – Selection of number of poles – Design of Armature – Design of commutator and brushes – design of field Computer program: Design of Armature main dimensions

**UNIT IV DESIGN OF INDUCTION MOTORS** 9

Construction - Output equation of Induction motor – Main dimensions – choice of specific loadings – Design of squirrel cage rotor and wound rotor –Magnetic leakage calculations – Operating characteristics : Magnetizing current - Short circuit current – Circle diagram - Computer program: Design of slip-ring rotor

**UNIT V DESIGN OF SYNCHRONOUS MACHINES** 9

Output equations – choice of specific loadings – Design of salient pole machines – Short circuit ratio – Armature design – Estimation of air gap length – Design of rotor –Design of damper winding – Determination of full load field MMF – Design of field winding – Design of turbo alternators -Computer program: Design of Stator main dimensions-Brushless DC Machines

**TOTAL : 45 PERIODS**


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## SUMMARY OF CLASS WORK

RECORD OF ATTENDANCE AND ASSESSMENT

Name of the Staff: N. Jeyaprakash, (Ph.D)

Department of the Staff : EEE

Semester From : Feb '22 To June '22

Class & Branch : III year EEE 'A' section

Code No. / Subject Name : EE8002 - Design of Electrical Apparatus

# TIME TABLE

| Period / Day | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Monday | | | | | | | | | | |
| Tuesday | | | | | | | | | | |
| Wednesday | | | | | | | | | | |
| Thursday | | | | | | | | | | |
| Friday | | | | | | | | | | |

# LESSON PLAN

## UNIT I: DESIGN OF FIELD SYSTEM AND ARMATURE

Target Period: 12 Planned Periods: 14

| S.No. | Topics to be Covered | Course Outcome | Knowledge Level | Hrs Req. | Text /Reference Book | Teaching Aid |
|---|---|---|---|---|---|---|
| 1. | Design of machines -major considerations -design factors - limitations in design | C313.1 | R & U | 1 | T1 & R2 | Power Point Presentation |
| 2. | Electrical engineering materials- Electrical Conducting materials-requirements -characteristics -copper & aluminium-iron and steel- alloys of copper-materials of high resistivity | C313.1 | R & U | 1 | T1,R2&R3 | Power Point Presentation |
| 3. | Magnetic materials-soft & hard-hysteresis loop-ageing- dynamo grade steel- transformer grade steel-high resistance steel-CRGOS and Insulating materials -electrical properties-classification of Insulating materials-application of insulating materials | C313.1 | R, U, An | 1 | T1, R2 &R3 | Power Point Presentation & Black Board |
| 4. | Total loadings-specific electric and magnetic loadings- choice of specific magnetic & electric loadings | C313.1 | R,U, An, A | 1 | T1, R2 &R3 | Power Point Presentation |
| 5. | Magnetic circuit Calculations-Calculation of mmf-airgap-smooth and slotted armature-fringing-Carter's gap coefficient | C313.1 | R,U, An, A | 2 | T1, R2 &R3 | Power Point Presentation & Black Board |
| 6. | Gap contraction factor for slots and ducts-effect of saliency-field form factor-net length of Iron-mmf for teeth | C313.1 | R, U, An | 1 | T1, R2 &R3 | Black Board |
| 7. | Real and apparent flux densities | C313.1 | R,U, An, A | 2 | T1& R3 | Black Board |
| 8. | Magnetic leakage calculations-specific permeance-leakage reactance-various leakage fluxes | C313.1 | R, U, An | 1 | T1& R3 | Black Board |
| 9. | Design and Analysis of Lap winding | C313.1 | R,U, An, A | 2 | T1& R3 | Black Board |
| 10. | Design and Analysis of Wave winding | C313.1 | R,U, An, A | 2 | T1& R3 | Black Board |
| 11. | Assignment | Date 30/3/2022 | | | | |
| 12. | Seminar/ Tutorial | Date 29/3/2022 | | | | |
| 13. | Internal Assessment Exam - I | Date 31/3/2022 | | | | |

# LESSON PLAN

## UNIT II: DESIGN OF TRANSFORMERS

Target Period: 12

Planned Periods: 14

| S.No | Topics to be Covered | Course Outcome | Knowledge Level | Hrs Req. | Text /Reference Book | Teaching Aid |
|---|---|---|---|---|---|---|
| 1. | Constructional details-emf equation-core/Shell type-single/three phase-distribution/power transformer-tappings and tap changing-bushings-transformer oil-conservator and breather-Buchholz relay | C313.2 | R, U, A, An | 2 | T1,R3& R4 | Power Point Presentation |
| 2. | Design-output equation-single phase-three phase-volt per turn-optimum designs-variation of output and losses of transformer with linear dimensions | C313.2 | R, U, A, An | 1 | T1& R4 | Power Point Presentation & Black Board |
| 3. | Design of core-rectangular –square core-stepped core-core area-window space factor-window dimensions-Overall dimensions | C313.2 | R, U, A, An | 1 | T1,R3& R4 | Power Point Presentation |
| 4. | Tutorial - I | C313.2 | R, A, An | 1 | T1,R1& R4 | Black Board |
| 5. | Design of shell type Transformer-Problems | C313.2 | R, U, A, An | 1 | T1& R4 | Power Point Presentation |
| 6. | Operating characteristics- Leakage reactance of transformer | C313.2 | R, U, A, An | 2 | T1& R4 | Power Point Presentation |
| 7. | Regulation of transformer-No load current-magnetizing Volt-ampere & Tutorial – II | C313.2 | R, A, An | 1 | T1& R4 | Black Board |
| 8. | Temperature rise of transformer-Design of tank with tubes- cooling of transformer | C313.2 | R, U, A, An | 1 | T1& R4 | Power Point Presentation |
| 9. | Tutorial - III | C313.2 | R, U, A, An | 2 | T1& R4 | Power Point Presentation |
| 10 | Assignment | Date: 24/9/2022 | | | | |
| 11 | Seminar/ Tutorial | Date: 20/10/2022 | | | | |
| 12 | Internal Assessment Exam - II | Date: 27/10/2022 | | | | |

# LESSON PLAN

## UNIT-III-DESIGN OF DC MACHINES

Target Period: 12

Planned Periods: 13

| S.No | Topics to be Covered | Course Outcome | Knowledge Level | Hrs Req. | Text /Reference Book | Teaching Aid |
|---|---|---|---|---|---|---|
| 1. | Constructional details-relation between rating and dimensions of rotating machines-Main dimensions-Output equation of D.C. machines-output co-efficient | C313.3 | R, U, A, An | 2 | T1 & R3 | Power Point Presentation |
| 2. | Tutorial - I | C313.3 | R, U, A, An | 1 | T1, T2 & R4 | Power Point Presentation & Black Board |
| 3. | Selection of Number of Poles-guiding factor for choice of number of poles-core length-pole proportions-pole face profile- Separation of D and L for D.C. Machines | C313.3 | R, U, A, An | 1 | T1 & R4 | Power Point Presentation & Black Board |
| 4. | Tutorial - II | C313.3 | R, A, An | 1 | T1 & R1 | Black Board |
| 5. | Factors affecting size of Electric Machines- Choice of specific Magnetic Loading-Choice of Specific electric loadings | C313.3 | R, U, A, An | 2 | T1, R3 & R4 | Power Point Presentation |
| 6. | Armature design-Choice of armature winding- No of armature conductors-armature coils-guiding factors for choice of No of armature slots-slot dimensions | C313.3 | R, U, A, An | 1 | T1, R3 & R4 | Power Point Presentation |
| 7. | design of field winding<br>Tutorial - III | C313.3 | R, U, A, An | 2 | T1, R1 & R4 | Power Point Presentation & Black Board |
| 8. | Design of Commutator No of segments- Commutator diameter- Design of brushes-dimensions of brushes | C313.3 | R, U, A, An | 2 | T1 & R4 | Power Point Presentation |
| 9. | Develop a Code for design of armature main dimensions and verify its results | C313.3 | R, A, An | 1 | T1& R1 | Black Board |
| 10. | Assignment | Date 10/5/22 | | | | |
| 11. | Seminar/ Tutorial/ Class Test | Date 10/5/22 | | | | |
| 12. | Internal Assessment Exam - III | Date 12/5/22 | | | | |

# LESSON PLAN

## UNIT- IV DESIGN OF INDUCTION MOTORS

Target Period: 12 Planned Periods: 15

| S.No | Topics to be Covered | Course Outcome | Knowledge Level | Hrs Req. | Text /Reference Book | Teaching Aid |
|---|---|---|---|---|---|---|
| 1. | Three phase induction motors-review-comparison of SR & SC Induction motor-Output equation-choice of average flux density and ampere conductors | C313.4 | R, U, A, An | 1 | T1, R3 & R4 | Power Point Presentation |
| 2. | Efficiency and P.F-Main dimensions-turns per phase- Number of stator slots-area of stator slots-limitations | C313.4 | R, U, A, An | 1 | T1& R3 | Power Point Presentation |
| 3. | Rotor design-length of air gap-relations for calculation of length of airgap | C313.4 | R, U, A, An | 1 | T1, R3 & R4 | Black Board |
| 4. | Tutorial - I | C313.4 | R, A, An | 1 | T1, R1 & R4 | Black Board |
| 5. | Design of squirrel cage rotor-number of slots-crawling- cogging-rule for selecting rotor slots-problems | C313.4 | R, U, A, An | 1 | T1, R3 & R4 | Power Point Presentation |
| 6. | Design of rotor bars and slots-rotor bar current-area of rotor bars-shape and size of rotor slots-design of end rings-end ring current-area of end ring-problems | C313.4 | R, U, A, An | 2 | T1& R4 | Power Point Presentation |
| 7. | Design of wound rotors-number of rotor slots-number of rotor turns-area of rotor conductors-problems. | C313.4 | R, U, A, An | 2 | T1 & R4 | Power Point Presentation |
| 8. | Tutorial - II | C313.4 | R, A, An | 1 | T1 & R4 | Black Board |
| 9. | Operating characteristics-No load current-problems-short circuit current-stator resistance-rotor resistance-problem, Dispersion co-efficient and its effects-Short Circuit Ratio-D and L for best power factor-problems | C313.4 | R, U, A, An | 1 | T1, R3 & R4 | Power Point Presentation |
| 10 | Tutorial-III | C313.4 | R, U, A, An | 1 | T1, R3 & R4 | Power Point Presentation |

# LESSON PLAN

## UNIT V: DESIGN OF SYNCHRONOUS MACHINES

Target Period: 12 Planned Periods: 14

| S.No | Topics to be Covered | Course Outcome | Knowledge Level | Hrs Req. | Text /Reference Book | Teaching Aid |
|---|---|---|---|---|---|---|
| 1. | Type of construction-revolving field-advantages-salient pole, cylindrical rotor-types of synchronous machines- | C313.5 | R, U, An | 1 | T1, R2 & R4 | Power Point Presentation |
| 2. | prime movers for synchronous generators-run away speed- Damper winding-Construction of Turbo alternators | C313.5 | R, U | 2 | T1, R3 & R4 | Power Point Presentation |
| 3. | Design-output equation-choice of specific magnetic, electric loading-design of salient pole machines-main dimensions- | C313.5 | R, U, A, An | 1 | T1& R4 | Power Point Presentation |
| 4. | Tutorial-I | C313.5 | R, A, An | 1 | T1, R1 & R4 | Black Board |
| 5. | Short circuit ratio-effect of SCR on machine performance- length of air gap-shape of pole face-Number of armature slots-coil span-turns per phase-conductor section | C313.5 | R, U, A, An | 1 | T1, T2, R2 & R4 | Power Point Presentation |
| 6. | shape of pole face-Number of armature slots-coil span-turns per phase-conductor section | C313.5 | R, U, A, An | 2 | T1, R2 & R4 | Power Point Presentation |
| 7. | Slot dimensions-length of mean turn-elimination of harmonics-problem | C313.5 | R, U, A, An | 1 | T1& R4 | Power Point Presentation & Black Board |
| 8. | Design of damper winding-problem-height of pole-determination of full load field mmf-design of field winding | C313.5 | R, U, A, An | 1 | T1, T2 & R4 | Power Point Presentation |
| 9. | Cooling arrangement of transformers | | | | T1 | |

STAFF SIGNATURE HOD SIGNATURE PRINCIPAL

# DAILY RECORD OF CLASS WORK

Month & Year :

| Date* | Day | Allotted Period | Period Handled | Reason for Alteration |
|---|---|---|---|---|
| | Monday | | | |
| | Tuesday | | | |
| 23/02/2022 | Wednesday | 4,5 | 4,5 | |
| 24/02/2022 | Thursday | 1,9 | 1,9 | |
| 25/02/2022 | Friday | 2 | 2 | |
| 26/02/2022 | Saturday | 3 | 3 | |
| 28/02/2022 | Monday | 3 | 3 | |
| 01/03/2022 | Tuesday | - | - | |
| 02/03/2022 | Wednesday | 4,5 | 4,5 | |
| 03/03/2022 | Thursday | 1,9 | 1,9 | |
| 04/03/2022 | Friday | 2 | 2 | |
| 05/03/2022 | Saturday | 3 | 3 | |
| 07/03/2022 | Monday | 3 | - | } Placement training |
| 08/03/2022 | Tuesday | - | - | |
| 09/03/2022 | Wednesday | 4,5 | - | |
| 10/03/2022 | Thursday | 1,9 | 1,9 | |
| 11/03/2022 | Friday | 2 | 2 | |
| 12/03/2022 | Saturday | 3 | 3 | |

| | | | | |
|---|---|---|---|---|
| 14/03/2022 | Monday | 2 | 2 | |
| 15/03/2022 | Tuesday | - | - | |
| 16/03/2022 | Wednesday | 4,5 | 4,5 | |
| 17/03/2022 | Thursday | 1,9 | 1,9 | |
| 18/03/2022 | Friday | 2 | 3 | IAE Duty, So 2nd & 3rd Hr Exchanged |
| 19/03/2022 | Saturday | 3 | 3 | |
| 21/03/2022 | Monday | 2 | 2 | |
| 22/03/2022 | Tuesday | - | - | |
| 23/03/2022 | Wednesday | 4,5 | 4,5 | |
| 24/03/2022 | Thursday | 1,9 | 1,9 | |
| 25/03/2022 | Friday | 2 | 2 | |
| 26/03/2022 | Saturday | 3 | 3 | |
| 28/03/2022 | Monday | 2 | - | IAE-I |
| 29/03/2022 | Tuesday | - | - | |
| 30/03/2022 | Wednesday | 4,5 | 4,5 | |
| 31/03/2022 | Thursday | 1,9 | 9 | IAE-I |
| 01/04/2022 | Friday | 2 | - | IAE-I |
| 02/04/2022 | Saturday | 3 | 3 | |

* Holidays / CL and OD days to be mentioned against the corresponding dates

Signature of HOD :

# DAILY RECORD OF CLASS WORK

Month & Year : Apr 2022

| Date* | Day | Allotted Period | Period Handled | Reason for Alteration |
|---|---|---|---|---|
| 4/4/2022 | Monday | 2 | 2 | |
| 5/4/2022 | Tuesday | – | – | |
| 6/4/2022 | Wednesday | 4,5 | 4 | 5th placement Training |
| 7/4/2022 | Thursday | 1,9 | 9 | 7 |
| 8/4/2022 | Friday | 2 | – | placement Training - II |
| 9/4/2022 | Saturday | 3 | – | |
| 10/4/2022 | Monday | 2 | 2 | |
| 12/4/2022 | Tuesday | – | – | |
| 13/4/2022 | Wednesday | 4,5 | – | |
| 14/4/2022 | Thursday | 1,9 | – | |
| 15/4/2022 | Friday | 2 | – | TAMIL New years & Good Friday leave |
| 17/4/2022 | Saturday | 3 | – | |
| 18/4/2022 | Monday | 2 | – | IAE - II |
| 19/4/2022 | Tuesday | – | – | |
| 20/4/2022 | Wednesday | 4,5 | 4,5 | |
| 21/4/2022 | Thursday | 1,9 | 9 | IAE - II |
| 22/4/2022 | Friday | 2 | – | IAE - II |
| 23/4/2022 | Saturday | 3 | – | Students went to Guest lecture |

| | | | | |
|---|---|---|---|---|
| 25/4/2022 | Monday | 2 | 2 | |
| 26/4/2022 | Tuesday | – | – | |
| 27/4/2022 | Wednesday | 4,5 | – | IV |
| 28/4/2022 | Thursday | 1,9 | 1,9 | |
| 29/4/2022 | Friday | 2 | 2 | |
| 30/4/2022 | Saturday | 3 | – | Sports day |
| 2/5/2022 | Monday | 2 | – | ? College leave |
| 3/5/2022 | Tuesday | – | – | |
| 4/5/2022 | Wednesday | 4,5 | 4,5 | |
| 5/5/2022 | Thursday | 1,9 | 1,9 | |
| 6/5/2022 | Friday | 2 | – | Students went to Screen tutorial |
| 7/5/2022 | Saturday | 3 | – | Students went to placement |
| 9/5/2022 | Monday | 2 | – | IAE - III |
| 10/5/2022 | Tuesday | – | 8,9,10 | HS SP Vedavalli maam leave For sy Mams Coverage Semester Hr Completed Cla |
| 11/5/2022 | Wednesday | 4,5 | 4,5 | |
| 12/5/2022 | Thursday | 1,9 | 9 | IAE - III |
| 13/5/2022 | Friday | 2 | – | IAE - III |
| 14/5/2022 | Saturday | 3 | 3 | |

* Holidays / CL and OD days to be mentioned against the corresponding dates

Signature of HOD : 14/5

# DAILY RECORD OF CLASS WORK

Month & Year : May 2022

| Date* | Day | Allotted Period | Period Handled | Reason for Alteration |
|---|---|---|---|---|
| 16/5/2022 | Monday | 2 | – | Students went to Placement |
| 17/5/2022 | Tuesday | – | – | |
| 18/5/2022 | Wednesday | 4,5 | 4,5 | |
| 19/5/2022 | Thursday | 1,9 | 1,9 | |
| 20/5/2022 | Friday | 2 | 2 | |
| 21/5/2022 | Saturday | 3 | 3 | |
| 23/5/2022 | Monday | 2 | 2 | |
| 24/5/2022 | Tuesday | – | – | |
| 25/5/2022 | Wednesday | 4,5 | 4,5 | |
| 26/5/2022 | Thursday | 1,9 | 1,9 | IAE-4 |
| 27/5/2022 | Friday | 2 | – | IAE-4 |
| 28/5/2022 | Saturday | 3 | 3 | |
| 30/5/2022 | Monday | 2 | 2 | |
| 31/5/2022 | Tuesday | – | – | |
| 1/6/2022 | Wednesday | 4,5 | 4,5 | |
| 2/6/2022 | Thursday | 1,9 | 1,9 | |
| 3/6/2022 | Friday | 2 | 2 (Model class) | |
| 4/6/2022 | Saturday | 3 | 3 | |

| | | | | |
|---|---|---|---|---|
| | Monday | | | |
| | Tuesday | | | |
| | Wednesday | | | |
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| | Saturday | | | |
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| | Monday | | | |
| | Tuesday | | | |
| | Wednesday | | | |
| | Thursday | | | |
| | Friday | | | |
| | Saturday | | | |

* Holidays / CL and OD days to be mentioned against the corresponding dates

Signature of HOD :

## ATTENDANCE

| Roll No. | Reg.No. | Name | No. of Periods Attended | | | |
|---|---|---|---|---|---|---|
| | | | Report Period | | | |
| | | | 1 | 2 | 3 | 4 |
| 19EE | 3123191C | | | | | |
| 291 | 5001 | Abhiseka Manikantan. V | | | | |
| 274 | 5002 | Abhishek A | | | | |
| 811 | 5003 | Abina S | | | | |
| 850 | 5004 | Abraya M | | | | |
| 136 | 5005 | Abraya V J | | | | |
| 135 | 5006 | Abinayaa Sri. T | | | | |
| 156 | 5007 | Abishek. T | | | | |
| 246 | 5008 | Abishlal N S | | | | |
| 236 | 5009 | Ajith VA | | | | |
| 149 | 5010 | Ajmal Abdul Kader H | | | | |
| 239 | 5011 | Akshayakrishnan | | | | |
| 120 | 5012 | Alfred Einstein. G | | | | |
| 130 | 5013 | Amirtha Varshini M | | | | |
| 209 | 5014 | Anarya L K | | | | |
| 234 | 5015 | Anto Bharath R | | | | |
| 863 | 5016 | Aravindhraj S | | | | |
| 139 | 5017 | Aravintnan R | | | | |
| 223 | 5018 | Ashwin S | | | | |
| 857 | 5019 | Ayesha Parveen I | | | | |
| 254 | 5020 | Balaji. S | | | | |

| MONTH | 2 | 2 | 2 | 2 | 2 | |
|---|---|---|---|---|---|---|
| DATE | 2 | 3 | 4 | 5 | 16 | 28 |
| PERIOD | 4 | 5 | 1 | 2 | 3 | 3 |
| | | | | | | |
| | | | A | | | |
| | | | | | | |
| | | | D | | A | |
| | | | | | A | |
| | | | A | | | |
| | | | A | A | A | A |
| | | | | | A | |
| | | | | | | |
| | | | | | A | |
| | | | | | | |
| Total ABSENT | 1 | 4 | 1 | 5 | 1 | |
| Total PRESENT | 19 | 16 | 19 | 15 | 19 | 19 |

## NTINUOUS ASSESSMENT MARKS

| CA-II | IAE-I | IAE-II | MODEL |
|---|---|---|---|
| 1/22 | 12/5/22 | 27/5/22 | 14/6/22 |
| | 26 | 26 | 45 |
| | 23 | 29 | 45 |
| | 34 | 46 | 67 |
| | 34 | 50 | 87 |
| | 34 | 34 | 52 |
| | 28 | 42 | 68 |
| | 23 | 34 | 45 |
| | 34 | 36 | 65 |
| | AB | 29 | 69 |
| | 36 | 45 | 69 |
| | 40 | 40 | 54 |
| | 34 | 28 | 70 |
| | 29 | 42 | 58 |
| | 37 | 49 | 75 |
| | 45 | 41 | 69 |
| | 23 | 49 | 45 |
| | 35 | 40 | 68 |
| | 34 | 28 | 46 |
| | 36 | 44 | 65 |
| | 29 | 43 | 53 |

# ATTENDANCE

| Roll No. | Reg No. | Name | No. of Periods Attended | | | |
|---|---|---|---|---|---|---|
| | | | Report Period | | | |
| | | | 1 | 2 | 3 | 4 |
| 1AEE | 3123/410 | | | | | |
| 250 | 5021 | Bala Murugan D | | | | |
| 106 | 5022 | Barkha S | | | | |
| 187 | 5023 | Bharath kumar M | | | | |
| 207 | 5024 | Brin Joe. A | | | | |
| 233 | 5025 | Cheran K | | | | |
| 119 | 5026 | Chris Austin A | | | | |
| 114 | 5027 | Chris Kevin A | | | | |
| 261 | 5028 | Christ Peeris R | | | | |
| 244 | 5029 | Deepana E | | | | |
| 159 | 5030 | Denesh S | | | | |
| 107 | 5031 | Dhanalakshmi R | | | | |
| 262 | 5032 | Dhanraj G | | | | |
| 248 | 5033 | Dharani Balan G | | | | |
| 273 | 5035 | Dhiyanesh P | | | | |
| 253 | 5036 | Divyalakshmi G | | | | |
| 215 | 5037 | Elanchezhiyan R J | | | | |
| 155 | 5038 | Eureak S Singh | | | | |
| 153 | 5039 | Evangelena M | | | | |
| 152 | 5040 | Godsen S V Noble | | | | |
| 223 | 5041 | Gokul N | | | | |

| MONTH | 2 | 2 | 2 | 2 | 2 |
|---|---|---|---|---|---|
| DATE | 23 | 24 | 25 | 26 | 27 |
| PERIOD | 1&5 | 1&2 | 2 | 3 | 3 |
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| A | | | | | |
| | | | | | |
| Total ABSENT | 2 | — | — | 1 | — |
| Total PRESENT | 18 | 20 | 20 | 19 | 20 |

## NTINUOUS ASSESSMENT MARKS

| | Test-III | Test-IV | Model |
|---|---|---|---|
| | 21/3/24 | 27/3/24 | 4/4/24 |
| | 34 | 36 | 72 |
| | 39 | 44 | 77 |
| | 24 | 31 | 57 |
| | 40 | 34 | 59 |
| | 40 | 46 | 67 |
| | 34 | 23 | 45 |
| | 24 | 43 | 45 |
| | 38 | 48 | 75 |
| | 27 | 37 | 53 |
| | 38 | 50 | 90 |
| | 27 | 34 | 75 |
| | 34 | 46 | 56 |
| | 00 | 35 | 27 |
| | 42 | 49 | 45 |
| | 27 | 41 | 54 |
| | AB | 36 | 67 |
| | 24 | 31 | 49 |
| | 40 | 44 | 49 |
| | 23 | 25 | 18 |
| | 45 | 43 | 67 |

# ATTENDANCE

| Roll No. | Reg.No. | Name | No. of Periods Attended | | | |
|---|---|---|---|---|---|---|
| | | | Report Period | | | |
| 19 EE | | | 1 | 2 | 3 | 4 |
| 275 | 5042 | Gopinath | | | | |
| 104 | 5043 | Goutham R | | | | |
| 278 | 5044 | Hariharan N | | | | |
| 220 | 5045 | Harish kumar k | | | | |
| 201 | 5046 | Hema Apsara A | | | | |
| 705 | 5047 | Ilakkiya K | | | | |
| 125 | 5048 | Irajanbu G | | | | |
| 227 | 5049 | Jagan k | | | | |
| 235 | 5050 | Jaya Sruthi RV | | | | |
| 240 | 5051 | Jaya Suriya M.S | | | | |
| 136 | 5052 | Jaya Surya V | | | | |
| 230 | 5053 | Jaya Varshini V | | | | |
| LEE401 | 5304 | Kishore S E | | | | |
| LEE403 | 5301 | Adhi Seralathan N | | | | |

| MONTH | 2 | 2 | 2 | 2 | 2 |
|---|---|---|---|---|---|
| DATE | 23 | 24 | 25 | 26 | 28 |
| PERIOD | 4 5 | 1 9 | 2 | 3 | 3 |
| | | | | | |
| | | | | A | |
| | | | | A | |
| A | | | | | |
| | | | | A | |
| Total ABSENT | 1 | – | – | 3 | – | – |
| Total PRESENT | 13 | 14 | 14 | 11 | 14 | 14 |

## TINUOUS ASSESSMENT MARKS

| | IA I | IA IV | MODEL |
|---|---|---|---|
| | 12/5/22 | 27/5/22 | 1/6/22 |
| | 41 | 44 | 67 |
| | 23 | 35 | 55 |
| | 38 | 47 | 71 |
| | 40 | 48 | 71 |
| | 37 | 34 | 32 |
| | 121 | 29 | 45 |
| | 43 | 48 | 90 |
| | 36 | 42 | 68 |
| | 42 | 49 | 45 |
| | 24 | 37 | 67 |
| | 26 | 24 | 47 |
| | 37 | 38 | 53 |
| | AB | 23 | 28 |
| | 26 | 40 | 67 |

## SUMMARY OF CLASS WORK

DATE: 23/2/2022 PERIOD: 4,5 TOTAL NO OF CLASS 02 UNIT 01

→ Introduction

→ DC M/C types – Explanation

DATE: 24/2/2022 PERIOD 1,9 TOTAL NO OF CLASS 04 UNIT 01

Electrical Engineering Materials taught – Conductors, Magnetic Materials

DATE: 25/2/2022 PERIOD 2 TOTAL NO OF CLASS 05 UNIT 01

→ Magnetic Materials

→ Insulating materials

## SUMMARY OF CLASS WORK

DATE: 26/2/2022 PERIOD: 3 TOTAL NO OF CLASS 06 UNIT 01

* Magnetic circuit
* Armature Reaction

DATE 28/2/2022 PERIOD 2 TOTAL NO OF CLASS 07 UNIT 01

Magnetic circuit Calculation

DATE 1/3/2022 PERIOD 4,5 TOTAL NO OF CLASS 09 UNIT 01

Reluctance of airgap with { closed slot / open slot

Sign of HOD with Date

## SUMMARY OF CLASS WORK

DATE 3/3/2022 PERIOD 1, 2 TOTAL NO OF CLASS 11 UNIT 01

Reluctance of airgap including fringing effect and Ventilating ducts

MMF calculation

DATE 4/3/2022 PERIOD 2 TOTAL NO OF CLASS 12 UNIT 01

- Effects of Saliency
- Filed form factor

DATE 5/3/2022 PERIOD 3 TOTAL NO OF CLASS 13 UNIT 01

- Net length of iron, Gauss Coeffs,
- MMF for teeth
  - Graphical Method
  - 3 ordinate method
  - $\frac{2}{3}$ Method

## SUMMARY OF CLASS WORK

DATE 10/3/2022 PERIOD 1, 2 TOTAL NO OF CLASS 15 UNIT 01

- Relation b/w Real flux density and apparent flux density
- Problems solved in MMF for airgap,
  - Real & apparent flux density

DATE 11/3/2022 PERIOD 2 TOTAL NO OF CLASS 16 UNIT 01

Magnetising current for - Concentrated winding
- distributed winding

- MMF Sinusoidal flux distribution

DATE 12/3/2022 PERIOD 3 TOTAL NO OF CLASS 17 UNIT 01

Terminologies using winding diagram

- Conductor, turn, coil, Pole pitch

Sign of HOD with Date

## SUMMARY OF CLASS WORK

DATE 14/3/2022 PERIOD 2 TOTAL NO. OF CLASS 18 UNIT 01

→ Pole pitch, full pitch winding, short pitch winding
→ Types of winding connection
→ lap winding
→ Lap winding

DATE: 16/3/2022 PERIOD: 4,5 TOTAL NO. OF CLASS 20 UNIT: 01

Problem
→ Based on wave winding
→ Based on Lap winding

DATE: 17/3/2022 PERIOD: 1,9 TOTAL NO. OF CLASS 22 UNIT: 01

→ Leakage Reactance
→ Types of leakage flux
→ Slot leakage Reactance for Parallel Sided Slot, Semi closed Slot

## SUMMARY OF CLASS WORK

DATE: 18/3/2022 PERIOD: 3 TOTAL NO. OF CLASS 23 UNIT: 01

Problemes based on Leakage Calculation

DATE: 19/3/2022 PERIOD: 3 TOTAL NO. OF CLASS 24 UNIT: 02

UNIT-02 Design of Transformer

Types of Transformer
Core & Shell type transformer

DATE: 21/3/2022 PERIOD: 2 TOTAL NO. OF CLASS 25 UNIT: 02

o/p Equation of 1ϕ Core type Transformer

Sign of HOD with Date

## SUMMARY OF CLASS WORK

DATE: 23/3/2022 PERIOD: 4,5 TOTAL NO. OF CLASS 27 UNIT: 02

→ O/P Equation of 3ϕ core type transformer

→ EMF/turn Voltage

DATE: 24/3/2022 PERIOD: 1, 9 TOTAL NO. OF CLASS 29 UNIT: 02

→ Problems based on O/P Equation

DATE: 25/3/2022 PERIOD: 2 TOTAL NO. OF CLASS 30 UNIT: 02

→ Problems based on O/P Equation

## SUMMARY OF CLASS WORK

DATE: 26/3/2022 PERIOD: 3 TOTAL NO. OF CLASS 31 UNIT: 02

Design of core

→ Square type core

DATE: 30/3/2022 PERIOD: 4,5 TOTAL NO. OF CLASS 33 UNIT: 02

Design of core

→ 2 Stepped core

Comparison of 2 Stepped, 3 Stepped & 4 Stepped Core

DATE: 31/3/2022 PERIOD: 9 TOTAL NO. OF CLASS 34 UNIT: 02

Design of 1ϕ Transformer Overall dimension

Sign of HOD with Date

## SUMMARY OF CLASS WORK

DATE: 2/4/2022 PERIOD: 3 TOTAL NO. OF CLASS 35 UNIT: 02

→ Design of 3ϕ overall dimension of Transformer
→ Design of Yoke
→ Design of winding

DATE: 4/4/2022 PERIOD: 2 TOTAL NO. OF CLASS 36 UNIT: 02

problems based on core design

DATE: 6/4/2022 PERIOD: 4 TOTAL NO. OF CLASS 37 UNIT: 02

Problems based on Core design

## SUMMARY OF CLASS WORK

DATE: 7/4/2022 PERIOD: 9 TOTAL NO. OF CLASS 38 UNIT: 02

problems based on Core design
problems based on Overall Dimensions

DATE: 11/4/2022 PERIOD: 2 TOTAL NO. OF CLASS 39 UNIT: 02

→ Estimation of no load current
→ Problems based on No load current

DATE: 20/4/2022 PERIOD: 4&5 TOTAL NO. OF CLASS 41 UNIT: 02

→ Design of cooling tubes -
→ Problems based on cooling tubes.

Sign of HOD with Date

## SUMMARY OF CLASS WORK

DATE: 21/4/2022 PERIOD: 9 TOTAL NO. OF CLASS 42 UNIT: 03

Unit-03 DC M/C Design.

→ Construction of DC M/C
→ Choice of Electric & Magnetic loadings

DATE: 25/4/2022 PERIOD: 2 TOTAL NO. OF CLASS 43 UNIT: 03

→ O/P Equation, Separation of D & L
→ problems based on O/P Equation

DATE: 28/4/2022 PERIOD: 1, 9 TOTAL NO. OF CLASS 45 UNIT: 03

→ Selection of No. of Poles

~~Step by Step Pro~~
Factors Influencing Selection of No of Poles

→ Problems based on Selection of No of Poles

## SUMMARY OF CLASS WORK

DATE: 29/4/2022 PERIOD: 2 TOTAL NO. OF CLASS 46 UNIT: 03

Design of Armature

→ Design procedures
→ Giving factor for No. of Armature Slots

DATE: 4/5/2022 PERIOD: 4,5 TOTAL NO. OF CLASS 48 UNIT 03

→ Problems based on Armature design

→ Design Procedure for Commutator & Brushes

DATE 5/5/2022 PERIOD 1, 9 TOTAL NO OF CLASS 50 UNIT 03

→ Problems based on Commutor losses

→ Design Procedure for Field System

Sign of HOD with Date

## SUMMARY OF CLASS WORK

DATE: 10/5/2022 PERIOD: 3, 9, 10 TOTAL NO. OF CLASS 53 UNIT: 03

→ Problems based on Field system

→ Armature desig using 'C'.

DATE: 11/5/2022 PERIOD: 4, 5 TOTAL NO. OF CLASS 55 UNIT: 04

UNIT 04 Design of IM

→ Construction, o/p Equation of IM
→ Choice of Specific loading
→ Separation of D & L

DATE: 12/5/2022 PERIOD: 9 TOTAL NO. OF CLASS 56 UNIT: 04

Stator Design

→ Factors Influencing Selection of No of Stator and/ No. of Stator Conductors

## SUMMARY OF CLASS WORK

DATE: 14/5/22 PERIOD: 3 TOTAL NO. OF CLASS 57 UNIT: 04

Problems based on D & L

DATE: 18/5/22 PERIOD: 4, 5 TOTAL NO. OF CLASS 59 UNIT: 04

Problems based on Stator Design
→ No of slots
→ No of conductor/slot.

DATE 19/5/22 PERIOD 1, 9 TOTAL NO OF CLASS 61 UNIT 04

→ Design of Squirrel cage rotor
→ Problems based on Squirrel cage Rotor

Sign of HOD with Date

## SUMMARY OF CLASS WORK

DATE 20/5/22 PERIOD 2 TOTAL NO. OF CLASS 62 UNIT 04

Design of Wound Rotor

Step by Step Procedures

DATE: 21/5/22 PERIOD: 5 TOTAL NO. OF CLASS 63 UNIT: 04

Problems based on Wound Rotor

DATE: 23/5/22 PERIOD: 2 TOTAL NO. OF CLASS 64 UNIT: 04

→ Magnetizing current

→ Dispersion Co-efficient

## SUMMARY OF CLASS WORK

DATE: 25/5/22 PERIOD: 4,5 TOTAL NO. OF CLASS 66 UNIT: 04, 05

Problems based on Magnetizing current

Unit 05 Synchronous Machine Design.

→ Construction, o/p Equation of Syn. M/C

→ Choice of Specific loadings.

DATE: 26/5/22 PERIOD: 9 TOTAL NO. OF CLASS 67 UNIT: 05

Problems based on D & L

DATE: 28/5/22 PERIOD: 3 TOTAL NO. OF CLASS 68 UNIT: 05

→ Short Circuit Ratio

→ Design of Stator Design

Sign of HOD with Date

## SUMMARY OF CLASS WORK

DATE: 30/5/22 PERIOD: 2 TOTAL NO. OF CLASS 69 UNIT: 05

Problems based on Stator Design.

DATE: 1/6/22 PERIOD: 4,5 TOTAL NO. OF CLASS 71 UNIT: 05

→ Design of Rotor
→ Design of field windings

DATE: 2/6/22 PERIOD: 1, 9 TOTAL NO. OF CLASS 73 UNIT: 05

→ Problems based on Rotors
→ Problems based on field windings

## SUMMARY OF CLASS WORK

DATE: 3/6/22 PERIOD: 2, Special class TOTAL NO. OF CLASS 76 UNIT: 05

→ Design of Damper windings
→ Problems based on Damper Windings.

DATE: 6/6/22 PERIOD: 3 TOTAL NO. OF CLASS 77 UNIT: 05

DATE PERIOD TOTAL NO OF CLASS UNIT

Sign of HOD with Date

# RESULT ANALYSIS

# MODEL EXAMINATION

| | | | |
|---|---|---|---|
| 1 | Date of Exam | : | 14/6/22 |
| 2 | Total No. of Students | : | 54 |
| 3 | No of Students Attended | : | 54 |
| 4 | No of Students Passed | : | 50 |
| 5 | Percentage of Pass | : | 92.59% |

## RESULT ANALYSIS

| Range of Marks | 0 - 44 | 45 - 60 | 61 - 75 | 76 - 80 | 81 - 90 | 91 - 100 |
|---|---|---|---|---|---|---|
| No. of Students | 04 | 24 | 21 | 05 | | 00 |

Signature of the Staff : [signature]

Name of the Staff : JEYAPRAKASH. N

Signature of the HOD of the Concerned Department with Date (After distributing the answer scripts) : [signature]

## SYLLABUS COVERAGE

| Unit No. | Started on | Completed on | No. of hours | Sign of staff with Date | Sign of HOD with Date |
|---|---|---|---|---|---|
| 01 | 23/2/2022 | 18/3/2022 | 23 | [signature] 18/3/2022 | [signature] |
| 02 | 19/3/2022 | 20/4/2022 | 18 | [signature] 20/4/2022 | [signature] |
| 03 | 21/4/2022 | 10/5/2022 | 12 | [signature] 10/5/2022 | [signature] |
| 04 | 11/5/2022 | 25/5/2022 | 12 | [signature] 25/5/2022 | [signature] |
| 05 | 25/5/2022 | 4/6/2022 | 12 | [signature] 4/6/2022 | [signature] |
| | | | | | |
| | | | | | |

## REMARKS

| S.No | Date | Remarks/Comments/Deviations, if any | HOD Signature with Date |
|---|---|---|---|
| 1. | 18/3/2022 | Unit - I Any planned 14 Hrs But I took 23 Hrs. ~~[illegible]~~ I have Solved more no of Problems. | |
| 2. | 19/3/2022 | Unit - II was planned 14 Hrs. But I took 18 Hrs I have Solved more problems in Core design. | |
| 3 | 10/5/2022 | UNIT 03 was planned 13 Hrs. Due to brief Introduction of UNIT 01, I have completed this unit in 12 Hrs. | |
| 4 | 25/5/2022 | ~~[illegible]~~ Due to brief Introduction of UNIT 01, I have completed this Unit in 12 Hrs. | |

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1931

*You Choose, We Do It*

# St. JOSEPH'S COLLEGE OF ENGINEERING

(An Autonomous Institution)

*We Make You Shine*

# St. JOSEPH'S INSTITUTE OF TECHNOLOGY

27 Years of Excellence ★ Since 1994★

St. Joseph's Group of Institutions

Jeppiaar Educational Trust

OMR, CHENNAI - 600 119

10 Years of Excellence ★ Since 2011★

## SUMMARY OF LABORATORY WORK

### ASSESSMENT AND ATTENDANCE RECORD

**Laboratory/ Workshop** : Ms. S. GOMATHI , Mr. VENKATESHKUMAR

**Year** : 2021 - 2022 **Semester** : II

**Name of the Staff**: GE1207 - ENGINEERING PRACTICE LAB

**Department** : EEE

# LAB COMPLETION DETAILS

| | From | To | Sign of In-charge with Date | Sign of HOD with Date |
|---|---|---|---|---|
| Cycle 1<br>Batch I | 4/4/2022 | 13/6/22 | S. Ilakkiya<br>13/6/22 | 13/6/22 |
| Cycle 2<br>Batch II | 11/4/22 | 23/5/22 | S. Ilakkiya<br>13/6/22 | 13/6/22 |
| Cycle 3 | | | | |

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**St. Joseph's Group of Institutions**

Jeppiaar Educational Trust

OMR, Chennai - 119.

**Department of Electrical and Electronics Engineering**

Staff Copy

**II Semester EEE**

## GE1207- ENGINEERING PRACTICES LABORATORY

## GROUP – B (ELECTRICAL)

**Course Outcomes (COs): After the course, the student can gain an:**

| S.No | Course Outcomes |
|---|---|
| C115.1 | Ability to comprehend the concept of wiring with the help of various electrical elements. |
| C115.2 | Ability to understand the working principle of Fluorescent Lamp by appropriate connection of elements. |
| C115.3 | Ability to analyze the concept of functioning of a bulb whose control is at two different places. |
| C115.4 | Ability to know the measurement of basic electrical quantities and the devices required for their measurements. |
| C115.5 | Ability to comprehend the purpose of earthing of electrical equipment. |

**Attainment of POs through COs (Legends : 1 – Low , 2 – Medium, 3 – High)**

**MAPPING BETWEEM COs, POs AND PSOs WITH CORRELATION LEVEL 1 / 2 / 3 :**

| GE8261 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 | PSO4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C115.1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 1 |
| C115.2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 1 |
| C115.3 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 1 |
| C115.4 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 2 | 1 |
| C115.5 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 1 |

**Relation between Course content/ Experiments with Cos**

| Sl. No. | Course Content | CO Statement | Knowledge level |
|---|---|---|---|
| 1. | Residential house wiring using switches, fuse, indicator lamp and energy meter | C115.1 | R,A,U |
| 2. | Fluorescent lamp wiring | C115.2 | R,A,U,An,E |
| 3. | Staircase wiring | C115.3 | R,A,U,An,E |
| 4. | Measurement of real power, reactive power, power factor and impedance of rlc circuit using voltmeters and ammeters | C115.4 | R,A,U,An,E |
| 5. | Measurement of energy using single phase energy meter. | C115.5 | R,A,U,An,E |

STAFF SIGN.

HOD SIGN.

PRINCIPAL

# ATTENDANCE

| Roll No. | Reg.No. | Name | Month / Date / Period | | |
|---|---|---|---|---|---|
| | 312321110 | BATCH I | | | |
| 21EI228 | 7028 | KEERTHIVASAN . VEE | | | |
| | 7029 | MARTIN RIJO | | | |
| 21EI207 | 7030 | MELVIN ADHARSH I G | | | |
| | | | | | |
| | | BATCH II | | | |
| 216 | 7032 | MOHAMED SAMEER . M | | | |
| 203 | 7033 | NAVNEETH R | | | |
| 234 | 7035 | PRADEEP KUMAR | | | |
| 213 | 7036 | REYNO KINGSLY A | | | |
| | | BATCH III | | | |
| 214 | 7037 | RUTHARAN . A | | | |
| 225 | 7038 | SAKTHI VIJAYAN . S | | | |
| 201 | 7041 | SANTHOSH . M | | | |
| | 7042 | SANJAY . J | | | |
| | | BATCH IV | | | |
| | | | | | |
| 107 | 7042 | SANU . J | | | |
| 105 | 7045 | SHADURVEDHI | | | |
| | | | | | |
| | | BATCH V | | | |
| 215 | 7046 | SIVAGNANAM | | | |
| 108 | 7047 | SHRIVATSAN | | | |
| 236 | 7048 | SUDHARSAN | | | |
| | | | | | |
| | | | Total Absent | | |
| | | | Total Present | | |

## ıop Monitoring Sheet

Staff (1) :
Staff (2) :
Staff (3) :

No. of Students :

| 4 | 15 | 16 | 17 | 18 | 19 | 20 | MARKS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Attend. | Record | Model (5) | Total (20) |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 4 | 18 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 4 | 18 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | ~~2.5~~ | ~~2.5~~ | ~~5~~ | ~~20~~ |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |

allowed

NS - Not submitted

# ATTENDANCE

| Roll No. | Reg.No. | Name | Month / Date / Period | | |
|---|---|---|---|---|---|
| | | BATCH VI | | | |
| 222 | 7049 | SURYA KUMAR | | | |
| 212 | 52 | SYED MOHAMED HASAN | | | |
| 114 | 54 | VISHNU VARSHAN A | | | |
| | | | | | |
| | | BATCH VII | | | |
| 213 | 30 | MEDHA | | | |
| 217 | 34 | POOJASRI | | | |
| 220 | 39 | SAMYUKTHA | | | |
| | | | | | |
| | | BATCH VIII | | | |
| 227 | 43 | SARANYA G | | | |
| 232 | 40 | SANGEETHA D | | | |
| 202 | 44 | SELVA LAKSHMI A | | | |
| | | | | | |
| | | BATCH IX | | | |
| 223 | 50 | SUSHMITHA M | | | |
| 231 | 51 | SWATHI C | | | |
| 204 | 58 | VEDHASRI S | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | Total Absent | | |
| | | | Total Present | | |

## hop Monitoring Sheet

Staff (1) :
Staff (2) :
Staff (3) :

No. of Students :

| 14 | 15 | 16 | 17 | 18 | 19 | 20 | MARKS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Attend. | Record | Model (5) | Total (20) |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 4 | 18 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 4 | 18 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |
| | | | | | | | 2.5 | 2.5 | 5 | 20 |

allowed

NS - Not submitted

# ATTENDANCE

| Roll No. | Reg.No. | Name<br>BATCH II | Month<br>Date<br>Period | | |
|---|---|---|---|---|---|
| | | BATCH I | | | |
| 21ET229 | 312321101001 | Abinesh · N | | | |
| 21ET202 | 003 | Akash · P | | | |
| 21ET103 | 005 | Albert Frankin · M. | | | |
| | | Batch - II | | | |
| 21ET224 | 008 | Arun Kumar · K | | | |
| 21ET208 | 009 | Ashwin · B | | | |
| 21ET116 | 010 | Balahanikandan · B | | | |
| | | Batch - III | | | |
| 21ET | 012 | Dhuleban Selvarathinam KP | | | |
| 21ET219 | 013 | Dishon · S · H | | | |
| 21ET235 | 015 | Yohinath · G | | | |
| | | Batch - IV | | | |
| 21ET115 | 016 | Harinath · S | | | |
| 21ET104 | 017 | Harish · M · | | | |
| 21ET110 | 018 | Hirithik · S | | | |
| | | Batch - V | | | |
| 21ET218 | 019 | Jakijan · M | | | |
| 21ET117 | 021 | Jehash Immanuel · C | | | |
| 21ET101 | 023 | Kabilan · D | | | |
| | | | Total Absent | | |
| | | | Total Present | | |

## ıop Monitoring Sheet

Staff (1) :
Staff (2) :
Staff (3) :

No. of Students :

| 14 | 15 | 16 | 17 | 18 | 19 | 20 | MARKS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Attend. | Record | Model | Total |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 4 | 18 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 4 | 18 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |

allowed

NS - Not submitted

# ATTENDANCE

| Roll No. | Reg.No. | Name | Month / Date / Period | | |
|---|---|---|---|---|---|
| | | Batch - VI | | | |
| 21E1109 | 024 | Karthik Raja . B | | | |
| 21E1106 | 025 | Kardhik . A . V | | | |
| 21E1209 | 026 | Kavin Jude Smouvin . J | | | |
| | | Batch - VII | | | |
| 21E1233 | 002 | Adithinja . R | | | |
| 21E1205 | 004 | Akila . S | | | |
| 21E111 | 006 | Anisha Sharon . D | | | |
| 21E1210 | 007 | Annie Beulah . V | | | |
| 21E1230 | 011 | Anuika . P | | | |
| | | Batch - VIII | | | |
| 21E1206 | 014 | Gomathi . U | | | |
| 21E112 | 020 | Jaya Sruthi . S | | | |
| 21E1226 | 022 | Jashiga . V | | | |
| 21E1221 | 027 | Keerthiga . R | | | |
| | | | Total Absent | | |
| | | | Total Present | | |

## ıop Monitoring Sheet

Staff (1) :
Staff (2) :
Staff (3) :

No. of Students :

| 4 | 15 | 16 | 17 | 18 | 19 | 20 | MARKS | | | |
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| | | | | | | | Attend. | Record | Model (5) | Total (20) |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 4 | 18 |
| | | | | | | | 2·5 | 2·5 | 4 | 18 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 4 | 18 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |
| | | | | | | | 2·5 | 2·5 | 5 | 20 |

| 04 | 04 | 05 | 05 |
|---|---|---|---|
| 11 | 25 | 9 | 23 |
| 9 (6) | 9 (10) | 9 (10) | 9 (6) |
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| - | - | - | - |
| 12 | 12 | 12 | 12 |

allowed

NS - Not submitted

# SUMMARY OF LABORATORY WORK

| CYCLE - | BATCH - I |
|---|---|

| GROUP | EXPERIMENT NO. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 Completed Date | 2 Completed Date | 3 Completed Date | 4 Completed Date | 5 Completed Date | 6 Completed Date | 7 Completed Date | 8 Completed Date |
| A1 | 4/4/22 | 18/4/22 | 16/5/22 | 30/5/22 | 13/6/22 | 13/6/22 | | |
| A2 | 4/4/22 | 13/6/22 | 18/4/22 | 16/5/22 | 30/5/22 | 13/6/22 | | |
| A3 | 4/4/22 | 13/6/22 | 13/6/22 | 18/4/22 | 16/5/22 | 30/5/22 | | |
| A4 | 4/4/22 | 30/5/22 | 13/6/22 | 13/6/22 | 18/4/22 | 16/5/22 | | |
| A5 | 4/4/22 | 16/5/22 | 30/5/22 | 13/6/22 | 13/6/22 | 18/4/22 | | |
| A6 | 4/4/22 | 18/4/22 | 16/5/22 | 30/5/22 | 13/6/22 | 13/6/22 | | |
| A7 | 4/4/22 | 13/6/22 | 18/4/22 | 16/5/22 | 30/5/22 | 13/6/22 | | |
| A8 | 4/4/22 | 13/6/22 | 13/6/22 | 18/4/22 | 16/5/22 | 30/5/22 | | |
| A9 | 4/4/22 | 30/5/22 | 13/6/22 | 13/6/22 | 18/4/22 | 16/5/22 | | |
| A10 | | | | | | | | |

S. Karthi

Signature of Staff

Signature of HOD

# SUMMARY OF LABORATORY WORK

| CYCLE - | BATCH - II |
|---|---|

| GROUP | EXPERIMENT NO. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 Completed Date | 2 Completed Date | 3 Completed Date | 4 Completed Date | 5 Completed Date | 6 Completed Date | 7 Completed Date | 8 Completed Date |
| A1 | 11/4/22 | 25/4/22 | 25/4/22 | 9/5/22 | 9/5/22 | 23/5/22 | | |
| A2 | 11/4/22 | 23/5/22 | 25/4/22 | 25/4/22 | 9/5/22 | 9/5/22 | | |
| A3 | 11/4/22 | 9/5/22 | 23/5/22 | 25/4/22 | 25/4/22 | 9/5/22 | | |
| A4 | 11/4/22 | 9/5/22 | 9/5/22 | 23/5/22 | 25/4/22 | 25/4/22 | | |
| A5 | 11/4/22 | 25/4/22 | 25/4/22 | 9/5/22 | 9/5/22 | 23/5/22 | | |
| A6 | 11/4/22 | 23/5/22 | 25/4/22 | 25/4/22 | 9/5/22 | 9/5/22 | | |
| A7 | 11/4/22 | 9/5/22 | 25/4/22 | 25/4/22 | 25/4/22 | 9/5/22 | | |
| A8 | 11/4/22 | 9/5/22 | 9/5/22 | 23/5/22 | 25/4/22 | 25/4/22 | | |
| A9 | | | | | | | | |
| A10 | | | | | | | | |

S. Sudhir

Signature of Staff

Signature of HOD

## GROUP B (ELECTRICAL & ELECTRONICS)

**III ELECTRICAL ENGINEERING PRACTICE** 13

1. Residential house wiring using switches, fuse, indicator, lamp and energy meter.
2. Fluorescent lamp wiring.
3. Stair case wiring
4. Measurement of electrical quantities – voltage, current, power & power factor in RLC circuit.
5. Measurement of energy using single phase energy meter.
6. Measurement of resistance to earth of an electrical equipment.

**IV ELECTRONICS ENGINEERING PRACTICE** 16

1. Study of Electronic components and equipments – Resistor, colour coding measurement of AC signal parameter (peak-peak, rms period, frequency) using CR.
2. Study of logic gates AND, OR, EX-OR and NOT.
3. Generation of Clock Signal.
4. Soldering practice – Components Devices and Circuits – Using general purpose PCB.
5. Measurement of ripple factor of HWR and FWR.

**TOTAL: 60 PERIODS**