



ASSIGNMENT-1

Course- B.TECH (3rd year/ 5th SEM.)

Sub code-EET/EEE-353

Sub- Automatic Control System

Last date of Submission- 10/11/2016

Instruction:

- 1) Write the responses to the assignment in your own handwriting.**
- 2) Submit the responses to your HOD within the due date.**
- 3) Write your name, program and Enrollment number clearly at the top of the page.**

Q1.

- a) What is control system? Explain how many types of control system? Define D'Alembert's principle?**
- b) What is mason's gain formula? Define signal flow graph, transfer function with suitable examples?**

Q2

- a) Derive the expression for response of the first and second order with unit step input?**
- b) Explain the design specifications of second order system?**



ASSIGNMENT-2

Course- B.TECH (3rd year/ 5th SEM.)

Sub code- EET/EEE-353

Sub- Automatic Control System

Last date of Submission-06/11/2016

Instruction:

- 1) Write the responses to the assignment in your own handwriting.**
- 2) Submit the responses to your HOD within the due date.**
- 3) Write your name, program and Enrollment number clearly at the top of the page.**

Q1

- a) Explain the construction and working principal of ac servomotor, synchronous and stepper motor?**
- b) What is stability? Explain the various methods of stability with suitable examples?**

Q2

- a) Explain the various types of compensation techniques in time domain and frequency domain?**
- b) Explain the state variable techniques in brief with suitable examples?**



MONAD UNIVERSITY

Village & Post Kastla, Kasmabad, P.O Pilkhuwa - 245101
Tehsil Hapur (U.P), India
EE Department

Course: B. Tech. EE- 5th Sem. (Utilization of Electrical Energy & Traction)

Assignment No: 1

Due date of submission: 10.11.2016

Instructions:-

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
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Q.1

(a) What is dielectric heating? Illustrate the factors on which the dielectric losses in a dielectric material depend.

(b) State Faraday's laws of electrolysis and explain them clearly.

Q.2

(a) Explain different methods of induction heating. Give also some applications of induction heating.

(b) Compare ac and dc welding methods in tabular form.



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Tehsil Hapur (U.P), India
EE Department

Course: B. Tech. EE- 5th^{Sem}. (Utilization of Electrical Energy & Traction)-EET-356

Assignment No: 2

Due date of submission: 10.11.2016

Instructions:-

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1

- a) What are the various methods of electric braking? Explain these methods in reference to a dc series motor.
- b) Describe the various types of current collectors in common use for overhead contact system.

Q.2

- a) What are the various traction systems in practice in our country? Give the advantages of electric drives with its limitations and discuss briefly the factors governing the final choice of traction system.
- b) Describe in detail functioning of window air conditioner.



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Village & Post Kastla, Kasmabad, P.O Pilkhuwa - 245101
Tehsil Hapur (U.P), India
E.E Department

Course: Electrical machine-II (B.TECH-3RD YEAR)

Code: EET-354/EEE-354

Assignment No: 1

Due date of submission: 10.11.2016

Instructions:

1. Write the responses to the assignment in your own handwriting.
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Q.1

(a) The centrifugal switch contacts fail to close when a resistance start induction motor is switched off from the supply. Explain what will happen when the motor is switched on to supply for restarting?

(b) A resistance start induction motor due to heavy over load is unable to accelerate and fails to disconnect the auxiliary winding through the opening of the centrifugal switch contacts. Explain what may happen?

Q.2

(a) Draw the connection diagram of a manual star delta starter for a three phase induction motor, explain the circuit. How do you make sure that the direction of rotation is not reserved while changing the connection from star to delta?

(b) What is hunting? How can eliminate the hunting?



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E.E Department

Course: Electrical machine –II (B.Tech EE- 5th)

Code: EET-354/EEE-354

Assignment No: 2

Due date of submission: 10.11.2016

Instructions:

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
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Q.1

(a) Explain why single phase induction motor with only one single phase winding on the stator and connected across a single phase supply does not develop any starting torque but continues to rotate in which the rotor is given an initial rotation.

(b) Why a three phase synchronous motor develops torque only at the synchronous speed where as a three phase synchronous motor develops torque at all speed except the synchronous speed.

Q.2

(a) Derive the expression for developed torque in a three phase induction motor and find the condition for maximum torque.

(b) Give constructional differences between salient pole cylindrical rotor synchronous machines. Why is cylindrical rotor machine used in thermal plant and salient pole machine used in hydro electric plant?



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E.E. Department

Course: B.Tech (EE)-5th Sem.

Subject: Power system-1st

Code: EET-352/EEE-352

Assignment No: 1

Due date of submission: 10.11.2016

Instructions:

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1 (a) Bring out the relative advantages and disadvantages of over- head and underground systems.

(b) Define the following:

- (i)** Critical disruptive voltage
- (ii)** Flashover and puncture voltage
- (iii)** Visual critical disruptive voltage.

Q.2

(a) Compare all the types of insulators. A string insulator has 4 units and each unit of the string is having capacitance "C" the pin to earth capacitance is C/10. Find the voltages across each unit of the string and string efficiency.

(b) Describe different types of insulators used in transmission lines with their applications



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E.E. Department

Course: B.Tech (EE)-5th Sem.

Subject: Power system-1st

Code: EET-352/EEE-352

Assignment No: 2

Due date of submission: 10.11.2016

Instructions:

1. Write the responses to the assignment in your own handwriting.
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Q1.(a)Determine:

1. The critical disruptive voltage
2. The visual critical voltage and
3. The corona loss under foul weather condition for a 3-phase line 160km long, conductor diameter 1.036cm, 2.44m delta spacing. Air temperature 26.6 degree Celsius, corresponding to an approximate barometric pressure of 73.15cm of mercury, operating voltage 110kv at 50Hz, surface irregularity factor 0.85. Assume a value of $Mv=0.72$.

(b)Prove that a transmission line conductor between two supports at equal heights takes the form of a catenary.

Q2 (a) Give the advantages, drawbacks and limitations of EHV AC transmission.

(b)Give the advantages, drawbacks and limitations of EHV DC transmission.



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E.E Department

Course: B.Tech (EE-5th SEM)

Subject: Electromagnetic theory/E.M.F.T.

Code: EET-351/EEE-351

Assignment: 1

Due date of submission: 10/11/2016

Instructions:

1. Write the response to the assignment in your own handwritings.
2. Submit the response to your H.O.D. within the due date.
3. Write your name, program and enrollment no. clearly at the top of the page.

Q1(a). Apply Gauss theorem to find the electric field strength at a point near infinite uniform flat sheet of charge.

Q1(b). Apply Laplace equation to find the potential function outside a charge conducting sphere.

Q2(a). Explain electric dipole and electric dipole moment with suitable example.

Q2(b). Define magnetic vector potential. With the help of magnetic vector potential we can find magnetic flux density? If yes elaborate with suitable example (at least two.)



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E.E Department

Course: Electromagnetic theory/E.M.F.T.(B.Tech-EE 5th SEM)

Code: EET-351/EEE-351

Assignment: 2

Due date of submission: 10/11/2016

Instructions:

1. Write the response to the assignment in your own handwritings.
2. Submit the response to your H.O.D. within the due date.
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Q1(a). Use Ampere's Law to determine Magnetic field at any point due to current flowing in a long cylindrical wire.

Q1(b) Write Short note on: **(a)** Biot-Savart Law **(b)** Magnetic Torque and Magnetic Moment.

Q2(a) Classify magnetic materials on the basis of their properties with Examples.

Q2(b) Define and Classify polarizations or Explain polynting Theorem with mathematics.



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Village & Post Kastla, Kasmabad, P.O Pilkhuwa - 245101
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E.E Department

Subject: - Engineering Managerial Economics

Course: B.Tech EE-5th SEM

Assignment No: 1

Due Date of Submission: 10.11.2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within the due date.
3. Write your name, programme and enrolment number clearly on the top of the page.

Ques. No.:-1

- A. Define Economics and the controversy between Father Adam Smith and Lord Alfred Marshall?
- B. Diagrammatically discuss about the meaning, importance, types and law of demand?

Ques. No.:-2

- C. With figure define elasticity of demand, its type and degrees? Numerically support your answer?
- D. Diagrammatically discuss about an indifference curve analysis?



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E.E. Department

Subject: - Engineering Managerial Economics

Course: B.Tech (EE+EEE)-5th SEM

Assignment No: 2

Due Date of Submission: 10.11.2016

Instructions:

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Ques. No.:-1

- A. Define Market? How prices and output are determined under perfect competition?
- B. Discuss about the classification of market? How prices are determined under monopoly and monopolistic competitions?

Ques. No.:-2

- C. Define Management with its nature, importance, characteristics and principles?
- D. What is decision making? Discuss about the classical and administrative models with the steps followed under decision making?

