

**Programme:** B.Tech EE- 4<sup>th</sup> Semester

Course: ELECTRICAL MACHINE-II

**Course Code: BTEE-221** 

**Assignment No:** 1

**Due date of submission:** 12.03.2019

#### 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) Derive and explain the EMF equation of synchronous motor.
- b) Explain the working principle of synchronous motor.

### **Q.2**

- a) Explain the open circuit test and short circuit test on synchronous motor?
- b) What are the necessary conditions for parallel operation of synchronous generators? And explain why we use parallel operation of machines?



**Programme:** B.Tech EE- 4<sup>th</sup> Semester

Course: BUSINESS ECONOMICS & ACCOUNTING

**Course Code: BCOM-221** 

**Assignment No: 1** 

Due date of submission: 12.03.2019

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### Que.No.1

- a) Define Market structure? What are the determinants of the market structure.
- **b)** What is perfect competition? How a firm determine its price and output under perfect competition.

# Que.No.2

a) What is Monopoly? Briefly explain its features.

**b)** What do you understand by Price discrimination? What are the favourable circumstances for price discrimination.



**Programme:** B.TECH (EE/EEE) 4<sup>th</sup> Sem

**Course:** BASIC SYSTEM ANALYSIS

**Course code: BTEE-224** 

**Assignment No:** 1

**Due date of submission:** 12.03.2019

# **Instruction:**

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- 3) Write your name, program and Enrollment number clearly at the top of the page.

Q1.

- a) Explain unit step, ramp and parabolic functions.
- b) Sketch and explain continuous time, discrete time and digital signals.

Q2

- a) Explain the various types of systems.
- **b)** Write the properties of Impulse function.



**Programme:** B. Tech. (4<sup>th</sup> Sem.)

**Assignment No:** 1

**Course: ELEMENTS OF POWER SYSTEM** 

**Subject code: BTEE-222** 

Assignment submission date: 12/03/2019

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# **Q.1**

- (a) Explain and draw the single line diagram of power system.
- **(b)** Explain the advantages of using overhead lines compared to underground cables.

### 0.2

- (a) Discuss the effect of increase in voltage on the transmission line efficiency?
- **(b)** Explain in briefly "Skin effect" and "Proximity effect" in power system.



**Programme:** B. Tech. (4<sup>th</sup> Sem.)

**Assignment No:** 1

Course: ELECTRICAL AND ELECTRONICS ENGINEERING MATERIALS

**Subject code: BTEE-223** 

Assignment submission date: 12/03/2019

### 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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### Question No. 1.

- a) What are miller indices and why are the used?
- b) What are the different types of bonds in solids explain each of them.

### Question No. 2.

- a) What are the types of structural imperfections in crystal growth? Define each of them.
- b) What are the energy bands in solids and classified them using energy band theory.