

## **J.S University**

### **Assignment For B.TECH in EC Engineering 7<sup>th</sup> Sem.**

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The Assignment will consist of two parts, A and B. Part A will have 5 short answer questions(40-60 words) of 4 marks each. Part B will have 2 long answer questions of 10 marks each

#### **All questions are compulsory.**

These Assignments should be completed and submitted in written form by the student to his/her respective Faculty/ Examiners. Assignment Submission Dates are:

#### **List Of Suggested Questions**

The list of suggested questions are for students to practice. Although optional, we recommend that students solve these questions, as they will help them in preparing for exams as well as in clearing the important concepts of the subject.

#### **List of Practical and suggested practical's**

The list of practical's should be done by the students in their Lab Sessions. These are the basic practical's, which each student should be able to do himself independently. While the list of suggested practicals are optional, but it is recommended that students should perform those practical so as to have a thorough knowledge of the subject

#### **Education Delivery Schedule (EDS)**

As per University Semester scheme, the minimum contact hours of each paper has been Divided into two hours theory and practical class.

The faculty will maintain this attendance paper wise for his/her batch.

<b>Subject code</b>	<b>Subject name</b>
BTOE-81	QUALITY MANAGMENT
BTOE-81	OPTICAL COMMUNICATION
BTEC-82	DATA COMMUNICATION NETWORK
BTEC-83	VLSI DESIGN
BTEC84P	INFORMATION THEORY AND CODING

# **J.S UNIVERSITY**

## **Cover page of Assignment**

ID NUMBER .....

NAME .....

COURSE B.TECH

STREAM EC.....

SEM 7<sup>th</sup> .....

SUBJECT CODE .....

SUBJECT NAME .....

# **ASSIGNMENT FOR B.TECH 7<sup>TH</sup> SEM EC ENGINEERING**

## **QUALITY MANAGMENT**

### **Part A**

**1 Quswhat Is Quality Statement ? Give Example**

**2 Qus Explain The Detail Iso-9000 And Its Concepts Of Quality Management?**

**3 Qus define The Various Manufacturing Quality methods And Technique For Manufacture, Inspection And Control Of Product ?**

**4 Qus Haw Cause And Effect Diagram Of TQM?**

**5 Qus What Is Taguchi Method? Explain**

### **Part B**

**1 Qus Write Down The Underlying Principle Of TQM?**

**2 Qus describe The Various Dimensions Of Quality ?**

## **ASSIGNMENT FOR B.TECH 7<sup>TH</sup> SEM EC ENGINEERING**

### **OPTICAL COMMUNICATION**

#### **Part A**

- 1 Qus give the introduction and ray theory transmission of optical fibers?
- 2 Qus What Is The electromagnetic mode theory for optical propagation?
- 3 Qus explain about signal distortion in optical fibers?.
- 4 Qus what is light emitting diode ? explain its working principle ?
- 5 Qus what are photo detector and photo diodes ? explain

#### **Part B**

- 1 Qus what are the effect of temperature in avalanche gain ?
- 2 Qus what is BER and Q factor measurement ?explain

## **ASSIGNMENT FOR B.TECH 7<sup>TH</sup> SEM EC ENGINEERING**

### **DATA COMMUNICATION NETWORK**

#### **Part A**

- 1. what are the basic component of communication system ?explain all**
- 2. draw the mathematical model for communication channel?**
- 3. explain about signal to noise ratio?**
- 4. what are the static channel allocation in LAN and MAN? explain**
- 5. write short note on HDLC and PPP?**

#### **Part B**

- 1. what is carrier sense multiple access protocols? explain**
- 2. what is IEEE STANDARD 802.3 ? explain**

## **ASSIGNMENT FOR B.TECH 7<sup>TH</sup> SEM EC ENGINEERING**

### **VLSI DESIGN**

#### **Part A**

- 1. What are MOS transistors? explain**
- 2. draw the RC delay model and also explain its working?**
- 3. write short note on DRAM , SRAM,ROM ,FLASH**
- 4. what are the basic principle of pass transistor circuit ?**
- 5. explain all fault types in VLSI design?**

#### **Part B**

- 1 . what is ad-hoc testable design techniques ?explain**
- 2 . what is controllability and observability ? write short note**

## **ASSIGNMENT FOR B.TECH 7<sup>TH</sup> SEM EC ENGINEERING**

### **INFORMATION THEORY AND CODING**

#### **PART A**

- 1. Explain Entropy , Joint Entropy, And Conditional Entropy ?**
- 2. What Is Asymptotic Equipartition Property Theorem? Explain**
- 3. What Is Data Compression ?Explain**
- 4. What Are Linear Codes ? Explain Generator Matrices And Standard Array?**
- 5. What Are Encoding Convolutional Codes? Explain**

#### **PART B**

- 1. Write The Short Note On Viterbi Decoder?**
- 2. Write Short Note On These**
  - Repetition Code**
  - Hamming Code**
  - Single Parity Check Code**