EE Department, UET, Lahore
Faisalabad Campus

Student Name: Muhammad Asad Reg. No. 2019-EE-383

**EE272 Digital Systems**
Mid Term Exam (Fall 2020, Session 2018)

- Start solution of every new question on a new page.
- All the related parts of a question must be solved together.
- No typo in the paper, understanding the question is part of examination.
- Return the Question Paper at the end of examination.

Time Allowed: 60 Minutes
Total Marks: 30

| | | | | |
|---|---|---|---|---|
| Q.1(a) | Using algebraic manipulation (Boolean algebra): Prove or disprove that:<br>$ab + a'c + bc = ab + a'c$ | 10 | CLO1 | PLO3, C6 |
| Q.1(b) | Perform subtraction of following unsigned numbers using 2's complement method<br>$(7C)_{16}-(100)_{10}$<br>Express the answer in decimal. | 05 | | |
| Q.2(a) | A Boolean function is given as.<br>$F(A, B, C, D) = \sum m(0,3,5,7,11,12,13,15)$<br>Simplify **F** using K-map method. | 10 | CLO1 | PLO3,C6 |
| Q.2(b) | Implement the Boolean function F (SOP form) using the 4 to 1 Multiplexer. | 05 | | |

***Good Luck***

# ELECTRICAL, ELECTRONICS& TELECOMMUNICATION ENGINEERING DEPARTMENT

UNIVERSITY OF ENGINEERING AND TECHNOLOGY LAHORE (FAISALABAD CAMPUS)

MID TERM-TECHNICAL WRITING AND PRESENTATION SKILLS-HU-221

Time: 60 Minutes | Total Marks: 30

Date: 24-02-21 | 3rd Semester Fall 2020

## Q1: CLO1 (5+5)

a) Explain the cyclic process for technical writing.
b) What is importance of ethics in technical writing?

## Q2:CLO2 (10)

Why CV/Resume is an important document? Explain its types and mention all sections of a professional CV/Resume.

## Q3:CLO3 (10)

What are the goals of oral presentations for technical works? Explain in detail the role of visual aids in technical writing.

Department of Electrical, Electronics & Telecom Engineering
UET (Lahore) Faisalabad Campus

Student Name: Muhammad Asad  Reg No: 2019-EE-383

# MA-234 Linear Algebra

Fall 2020, Session 2019 (03rd Semester)
Mid-Term Exams

Time Allowed: 60 Minutes
Total Marks: 30

- All the related parts of a question must be solved together.
- Start solution of every new part on a new page.

| | | | | |
|---|---|---|---|---|
| Q 1 | A | Define the following terms with examples: Permutation matrix, Scalar matrix, Symmetric matrix, skew symmetric matrix and markov matrix. | 05 | CLO1 |
| | B | **Carry** out the LU decomposition of $A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 3 \\ 2 & 5 & 8 \end{bmatrix}$. | 05 | |
| | C | **Solve** that $M = I - UV$ and $M^{-1} = I_n + U(I_m - VU)^{-1}V$ are inverse of each other. | 5 | |
| Q 2 | A | **Carry out** the four fundamental subspaces of $\begin{bmatrix} 1 & 2 \\ 3 & 6 \end{bmatrix}$. | 05 | CLO2 |
| | B | **Define** linear transformation and if $T(v_1, v_2, v_3) = (v_2, v_3, v_1)$, then calculate the value of $T^{100}(v)$. | 05 | |
| | C | **Analyze** the basis of the orthogonal component of row space of $A = \begin{bmatrix} 1 & 0 & 2 \\ 1 & 1 & 4 \end{bmatrix}$. | 05 | |

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Time: 60 Minutes | Total Marks: 30

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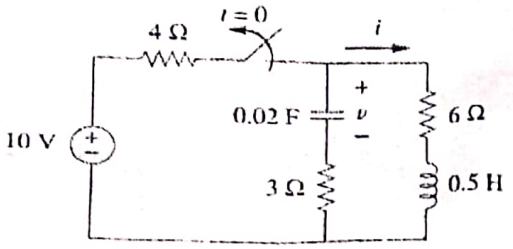
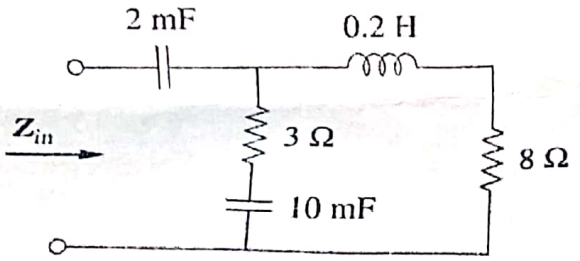
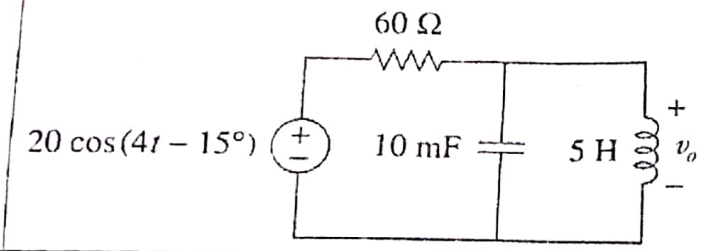
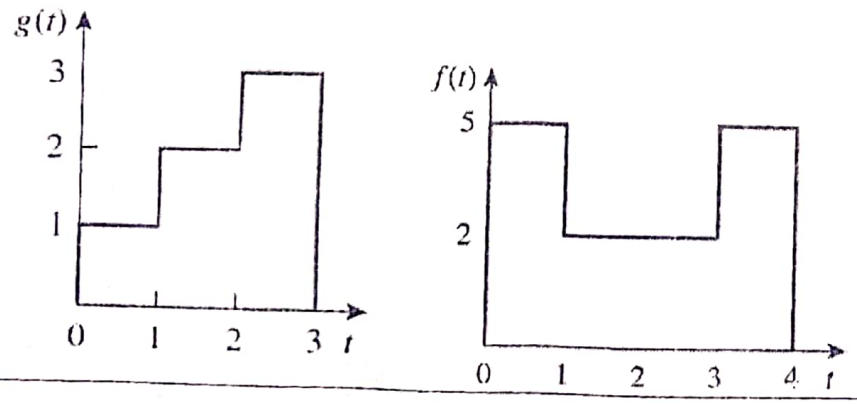
Department of Electrical, Electronics & Telecom Engineering
UET (Lahore) Faisalabad Campus

Student Name: ASIM Reg. No. 2019-EE-401

**EE-110 Circuit Analysis & Design**
Fall 2020, Session 2019 (03th Semester)
Mid-Term Exams

Time Allowed: 60 Minutes
Total Marks: 30

- All the related parts of a question must be solved together.
- Start solution of every new part on a new page.

| | | | | |
|---|---|---|---|---|
| Q.1 | A | **Construct** i(t) in following circuit, assume that circuit has reached steady state at t=0⁻   | 10 | CLO1 |
| Q.2 | A | **Calculate** the input impedance of following circuit where $\omega = 50\ rad/s$   | 05 | CLO2 |
| | B | **Inspect** $V_0$ in following circuit   | 05 | |
| Q.3 | A | **Analyze** the Laplace transform of the following functions   | 05 | CLO3 |