DEPARTMENT OF BASIC SCIENCES AND ISLAMIAT

University of Engineering and Technology, Peshawar

PAPER: Differential Equations

Mid-Term Examination 2nd Semester Spring-2017

(Computer System Engineering)

Time Allowed: 2 hours **Max Marks: 25**

Note: Attempt all questions:

Q1. (a) State the order of the differential equation. Verify that the given function is a solution.

$x + yy' = 0, \qquad x^2 + y^2 = 1$

What happens to the differential equation in part (a)

(i) If we change the solution to $x^2 - y^2 = 1$?

(ii) If we replace 1 or 2? By any number?

(b) Solve the initial value problem.

$$xy' = y + 3x^4 \cos^2(y/x), \quad y(1) = 0$$

Q2. (a) Find an integrating factor and solve

$$(2\cos y + 4x^2)dx = x \sin y dy$$

(b) Solve the initial value problem.

$$2\sin 2x \sinh y dx - \cos 2x \cosh y dy = 0, \qquad y(0) = 1$$

Q3. (a) Reduce the given nonlinear differential equation to linear form and Solve.

$$y' + xy = xy^{-1}$$

(b) Given the curves $y = \ln|x| + c$, where c is arbitrary. Find the orthogonal Trajectories.

Q4. (a) Find a (real) general solution

$$y'' - 4y' + 5y = e^{2x} \csc x$$

(b) Solve the given initial value problem.

$$y'' + 1.2y' + 0.36y = 4e^{-0.6x}, \quad y(0) = 0, \quad y'(0) = 1.$$

Department of Computer System Engineering

ME-104 Engineering Drawing & CAD
Mid Term Examination, Spring-2017

Total Time 2 hr | Marks (80)

Attempt all questions. All carry equal marks.

Q.1 a) Construct a scale of 1 : 4 to show centimeters and long enough to measure upto 5 decimeters. Write the step by step procedure. 10

b) Divide a 10 cm line into 7 equal parts. 10

Q.2 a) What is Angle of projection? Differentiate between first and third angle projections. 10

b) A point A is 2.4 cm above the H.P and 3 cm in front of the V.P. Draw its projections. 10

Q.3 A 100 mm long line is parallel to and 40 m above the H.P. Its two ends are 25 mm and 50 mm in front on the V.P respectively. Draw its projections and find its inclination with the V.P. 20

Q.4 A line *AB* 80 mm long has its end *A* 30 mm above the H.P. and 20 mm in front of the V.P. The line is inclined at 30° to the H.P. and at 45° to the V.P. Draw its projections. 20

University of Engineering & Technology Peshawar

Exam: Mid Term (Spring 2017)

Computer System Engineering

Paper: Pakistan Studies **Semester: 2nd**

Time: 2 hours **Marks: 25**

Note: Attempt all questions. Each question caries equal marks

Q 1. Define the Ideology of Pakistan and explain it in the words of Quaid-e-Azam Muhammad Ali Jinnah

Q 2. Identify the top-most three Muslim reformers of Indo-Pak sub-continent and evaluate the services of Sir Syed Ahmad Khan.

Q 3. Explain the causes, events and consequences of the Khilafat Movement.

Q4. Explain the services, rendered by Dr. Allama Muhammad Iqbal as a Political Leader

DEPARTMENT OF BASIC SCIENCES AND ISLAMIAT

University of Engineering and Technology, Peshawar

PAPER: Communication & Presentation Skills

Mid-Term Examination Fall -2016

(2nd semester Computer system)

Time Allowed: 2 hours

Max Marks: 50

Note: Attempt all questions:

Q1. Give brief answers to the following questions. Each carries five marks. (20)

a) **Differentiate Intra and inter personal communication .Give examples.**
b) **How can a message be concrete and considerate at one time?**
c) **What is AIDA plan?**
d) **Discuss briefly communication as a process. How can context as component of communication affects the process?**
e) **Define targeted resume .how would you write the objective part of your resume?**

Q2. Communication is the life blood of an organization .discuss the importance of communication in the light of above statement. (10)

Q3. Give an account of barriers of communication .How would you avoid these barriers as general manager of a company? (10)

Q4. Write a cover letter in response to an advertisement for the post of network administrator in a company. Give your bio data in full. (10)