

**BAHRIA UNIVERSITY (KARACHI CAMPUS**)

ASSIGNMENT # 3 – FALL SEMESTER – 2022

Computer Communication and Networks (CEN-223)

Class: **BSE-5B** Submission Deadline: **20/12/2022**

Course Instructor: **Engr. Mahawish**  Max Marks: **05 marks**

Question 1**:** [CLO 3]

An organization is granted a block of address with the beginning address 14.24.74.0/24. There are 232-24 = 256 addresses in this block. The organization needs to have 11 subnets with the following specifications:

a) Two subnets, each with 64 addresses

b) Two subnets, each with 32 addresses

c) Three subnets, each with 16 addresses

d) Four subnets, each with 4 addresses

Also design the subnets of the organization.

Scenario #1: IP Allocation in a MAN

You are tasked by your supervisor with assigning IP addresses for your new MAN

(Metropolitan Area Network), which consists of 8 different buildings, each building will have

255 workstations. Your supervisor tells you to only use as much of the 164.10.0.0 network

as you need. Your supervisor will assign the IP addresses to the serial interfaces using a

different network. You will need to determine the following four items for each of the eight

buildings:

A) Subnet masks

B) Network addresses

C) Broadcast address for each subnet

D) Valid host ranges on each subnet

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