Ministry of Higher Education		
Manzala Higher Institute for Engineering and Technology		
Second semester :2023/2024.		**Course title:** Fundamentals Of Electrical Circuits
Department: Electronic Eng.		**Code: COM111**
MidTerm		**14/11/2023**
Name/		

Answer the Following Questions: ***Question# 1 (5 Marks)***

1- SI unit of Force is ……

(a) Joule (b) Newton (c) Coulomb (d) Ampere

2- What is the current from a steady flow of 100 C through a wire cross section in 20s?

(a) 50A (b) 2000A (c) 10A (d) 5A

3- What is the input power in watts to 1 hp electric motor operating at 90% efficiency?

(a) 528W (b) 90 W (c) 829 W (d) 1.11 W

4- An open circuit has an …….. resistance, which means that it has zero current flow through it for any finite voltage across it.

(a) Zero (b) Infinite (c) Small (d) Medium

5- "The algebraic sum of the currents leaving a closed surface is zero", is one version of …….. law

(a) Ohm (b) KCL (c) KVL (d) Ampere`s

Question# 2 (5 Marks)

6-Using Nodal analysis, Determine the voltage at N and I_o, at Fig. 1?

Question# 3 (5 Marks)

7- Use Mesh analysis to find the currents in the circuit at Fig. 2?

Question# 4 (5 Marks)

8- Using Current divider find the currents passing in each resistor at Fig. 3?

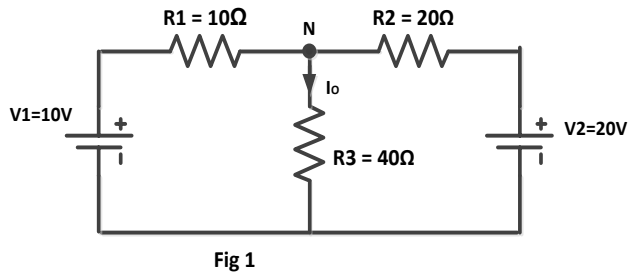

Fig 1

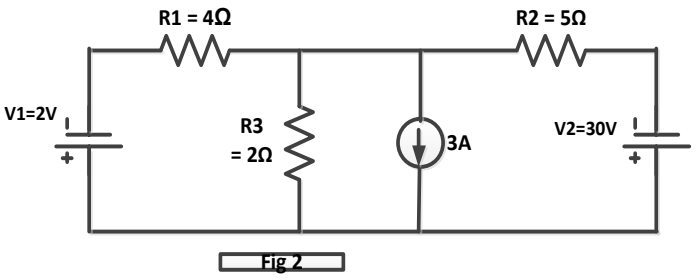

Fig 2

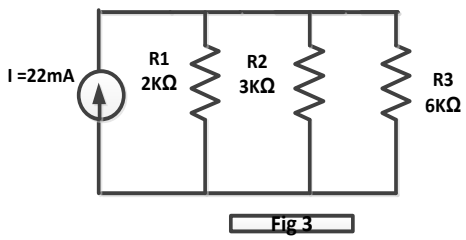

Fig 3