<div align="center">Research submission: From 31 May to 7 June 2020</div>

a) <u>Write a research project in ONE of the following topics:</u>

Topic No. 1

Diodes and its application (choose one application and describe it in details with simulation)

Topic No. 2

Step Response and Natural Response for RL, and RC with applications (choose one

application and describe it in details with simulation)

Topic No. 3

Electronic circuit transformation and simplification using different techniques (choose one

technique and describe it in details with simulation)

Topic No. 4

Kirchhoff's circuit laws and its applications (choose one application and describe it in

details with simulation)

Topic No. 5

Transistors types and applications (choose one application and describe it in details with

simulation)

Notes: please, your research must contain the following elements:

- **Introduction to selected topic**
- **Methods and application description and its importance**
- **Simulation results and circuits analysis (choose any simulator)**
- **References**

GOOD LUCK,

Examiner(s)   **Program Coordinator**

Dr.Mustafa Abdul Salam   **Dr. Mohamed Taha**