Menoufia University
Faculty of Electronic Eng.
Industrial Elect. and Control Dept.
First Year Exam.

Mid term Exam 2018-2019
Time allowed: 1 hour
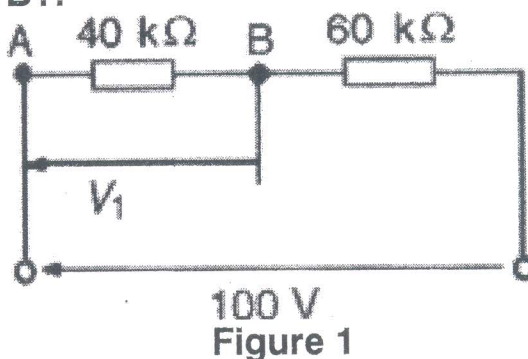**Subject: Electrical Meas.**
Date: 2/4/2019

اسم الطالب/الطالبة:

الدرجة:

رقم السكشن:

Answer all the following questions

1-a A voltmeter having a full scale deflection of 100V and a sensitivity of 1.6 kΩ/V is used to measure voltage V1 in the circuit of Figure 1, Determine:

(i) The value of voltage V1 with the voltmeter is not connected,

(ii) The voltage indicated by the voltmeter when connected between A and B?.

100 V
Figure 1

1-b Draw and explain briefly each of the following:

    i- Deadweight pressure gauge.

    ii- Petrol-tank level indicator.

2-a The expected value of the voltage across a resistor is 50V; however, measurements yields a value of 49V. Calculate:

    i- The absolute error.

    ii- The percent of error.

    iii- The relative accuracy.

    iv- The percent of accuracy.

2-b Explain with the help of sketches each of the following:
    i- Instrument characteristic with hysteresis.
    ii- Instrument characteristic with dead space.