



الدرجات موزعة بالتساوي بين الاسئلة

الاجابة عن خمسة اسئلة فقط

- Q1) OP-AMP circuits can be used as signal transducing circuit : draw, write transfer equation , explain briefly FOUR of the followings :
- A) Summing Amplifier circuit . B) Differential Amplifier circuit . C) Integrating Amplifier .
D) Differentiating Amplifier circuit . E) Current -to-Voltage Convertor . F) Voltage -to- Current .
- Q2) A moving coil instrument gives a full scale deflection of (10 mA) , when the potential difference across its terminal is (100 mV) . Calculate
- A) The additional resistance for a full scale deflection corresponding to (100 A)
B) The additional resistance for a full scale reading with (1000 V)
- Q3) For a Dynamometer (electromagnetic moving coil) instrument . Perform the followings :
- A) Draw the construction & components of it , explain the operating principle .
B) Show the principle of the torque equation criteria . C) What is its advantages & disadvantages
- Q4) For the Owen's measuring bridge :
- A) Draw the circuit diagram of it . B) Draw the voltage-current relating phasors .
C) Derive the balance equation to find the unknown component .
- Q5) For the Strain Gage sensor ,
- A) Explain the Basic formulas showing the gage factor equation .
B) Write the equations & operating principle .
- Q6) Explain in Block diagram , the operating & signal flow operation of the automated sensor system . Write briefly about each block in the circuit .

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