**Electrical measurement lab/Question Bank**

Q 1 / Measure the AC voltage on the Oscilloscope.

------------------------------------------------------------------------------------------------------------------------

Q2 /Show us an AC voltage with (1 kHz) and (Vrms=6 V) on the Oscilloscope.

------------------------------------------------------------------------------------------------------------------------

Q3 /Determine the frequency of the given wave on the Oscilloscope.

------------------------------------------------------------------------------------------------------------------------

Q 4 / By using Lissajouse figure find the frequency of the unknown wave

------------------------------------------------------------------------------------------------------------------------

Q5 / Find the value of (C) of the unknown capacitor in the given circuit connection.

------------------------------------------------------------------------------------------------------------------------

Q6 / Find the value of (L) of the unknown inductor in the given circuit connection.

------------------------------------------------------------------------------------------------------------------------

Q7 / Find the value of (R) of the unknown resistor in the given circuit connection.

------------------------------------------------------------------------------------------------------------------------

Q8 / Draw and connect the circuit of damping factor in electrical resonance.

------------------------------------------------------------------------------------------------------------------------

Q9 / Adjust the Oscilloscope parameter and show us the damping wave.

------------------------------------------------------------------------------------------------------------------------

Q10 / The ripple factor of a Full-wave rectifier is.............?

------------------------------------------------------------------------------------------------------------------------

Q11 / The ripple factor of a Half-wave rectifier is.............?

------------------------------------------------------------------------------------------------------------------------

Q12 / Draw and connect the circuit Half –Wave Rectifier.

------------------------------------------------------------------------------------------------------------------------

Q13 / Draw and connect the circuit of Full – Wave Rectifier.

------------------------------------------------------------------------------------------------------------------------

Q14 / What the frequency should be if (47 µF) have a reactance of 1 ohm?

Q15/

1. A CRO can display \_\_\_\_\_\_\_\_\_  
   a) DC signals  
   b) AC signals  
   c) Time-invariant signals  
   d) Both AC and DC signals
2. Which one of the following is a common application of ordinary diode?  
   a) A voltage regulator  
   b) An amplifier  
   c) A rectifier  
   d) An Oscillator
3. By making use of a CRO \_\_\_\_\_\_\_\_\_  
   a) many characteristics of a signal can be measured  
   b) only a few characteristics of a signal can be measured  
   c) no characteristics of a signal can be measured  
   d) signal can only be displayed
4. 4. Peak to peak voltage is given by \_\_\_\_\_\_\_\_  
   a) Vp-p = number of units × (1/𝑑𝑖𝑣𝑖𝑠𝑖𝑜𝑛)  
   b) Vp-p = (𝑣𝑜𝑙𝑡𝑠/𝑑𝑖𝑣𝑖𝑠𝑖𝑜𝑛)  
   c) Vp-p = number of units × volts  
   d) Vp-p = number of units × (𝑣𝑜𝑙𝑡𝑠/𝑑𝑖𝑣𝑖𝑠𝑖𝑜𝑛)
5. The amplitude of voltage is given by which of the following relation?  
   a) Vm = 𝑉𝑝−𝑝 / 2  
   b) Vm = 𝑉𝑝−𝑝 / 4  
   c) Vm = 2 × Vp-p  
   d) Vm = 4 × Vp-p
6. The R.M.S voltage is given by which of the following relation?  
   a) Vrms = 𝑉𝑚 /2  
   b) Vrms = 𝑉𝑚/√2  
   c) Vrms = 𝑉𝑚/8  
   d) Vrms = 𝑉𝑚/√8
7. Ordinary Diode works under region of I-V characteristics?  
   a) Forward biasing  
   b) No biasing  
   c) Zero external voltage  
   d) Reverse biasing
8. Silicon diode is less suited for low voltage rectifier operation because:

a) Its breakdown voltage is high  
b) Its reverse saturation current is low  
c) Its cut-in voltage is high  
d) None of the above

1. Which rectifier requires four diodes?

a) Half-wave voltage doublers  
 b) Full-wave voltage doublers  
 c) Full-wave bridge circuit  
 d) None of the above

1. A filtered full-wave rectifier voltage has a smaller ripple than does a half-wave rectifier voltage for the same load resistance and capacitor values because:

a) there is a longer time between peaks  
 b) the larger the ripple, the better the filtering action  
 c) there is a shorter time between peaks  
 d) None of the above