

**Code No: 55044**

**Set No. 1**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**III B.Tech. I Sem., I Mid-Term Examinations, September – 2011**

**PRINCIPLES OF ELECTRONIC INSTRUMENTATION**

**Objective Exam**

**Name:** \_\_\_\_\_ **Hall Ticket No.**

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**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**

**I Choose the correct alternative:**

1. The amount by which the loop gain is less than 0dB, when the phase of loop gain is 0 is called [      ]  
A) Phase margin      B) Gain margin      C) Noise figure      D) none of these.
2. The high frequency stations broadcast at frequencies between [      ]  
A) 3 and 30MHz      B) 10 and 75KHz      C) 3 and 75KHz      D) 10 and 30MHz.
3. Synchronous detector output voltage is proportional to the [      ]  
A) Addition of input signal and reference signal      B) Subtraction of input signal and reference signal  
C) Product of input signal and reference signal      D) Ratio of input signal and reference signal.
4. Square wave testing first became widely used in the testing of \_\_\_\_\_ amplifiers. [      ]  
A) Power      B) Video      C) Audio      D) Push pull class B
5. A Wheatstone bridge cannot be used for precision measurements because errors are introduced into on account of [      ]  
A) Resistance of connecting leads      B) Contact resistances  
C) Thermo electric effects      D) all the above
6. Kelvin bridge is used to measure the [      ]  
A) high frequencies      B) high capacitances      C) low resistances      D) low inductances
7. In a reed type frequency meters all the reeds [      ]  
A) Have the same natural frequency  
B) Have different natural frequency  
C) Have different natural frequency but the natural frequency of adjacent reeds is  $\pm 0.5\text{Hz}$   
D) None of the above
8. In instruments DC amplifiers are most commonly used for [      ]  
A) Increase power available      B) to amplify voltage or current  
C) Provide the desired load impedance      D) B & C.
9. The rate at which the output of the amplifier can reach the current level during Saturation is called [      ]  
A) Offset drift      B) Dynamic slewing rate      C) Common mode gain      D) Trans conductance
10. The number of digits in a counter is related to [      ]  
A) Required frequency range      B) the clock frequency  
C) Clock accuracy      D) All of these

**Cont.....2**

**Code No: 55044**

**:2:**

**Set No. 1**

**II Fill in the blanks**

11. The loss in decibels is defined as  $L =$  \_\_\_\_\_
12. Schering Bridge is used in \_\_\_\_\_ frequency bridges.
13. In frequency measurements input signal is first supplied to a signal shaper which converts the input signals(pulses) to \_\_\_\_\_ pulses
14. The primary difference between the peak- responding voltmeter and the average responding voltmeter is the use of a \_\_\_\_\_ with \_\_\_\_\_
15. Digital instruments have input impedance of the order of \_\_\_\_\_ ohms
16. The average value of the one-half cycle of the sine wave is  $V_a =$  \_\_\_\_\_
17. The gain in decibels is defined as  $G =$  \_\_\_\_\_
18. Peak to peak detector is sometimes called as \_\_\_\_\_
19. High resistances are provided with a guard with a guard terminal. The guard terminal is used to \_\_\_\_\_
20. The vector impedance meter uses a phase locked sampling system to obtain and operate in a frequency range of from \_\_\_\_\_ to \_\_\_\_\_

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**Code No: 55044**

**Set No. 2**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**III B.Tech. I Sem., I Mid-Term Examinations, September – 2011**

**PRINCIPLES OF ELECTRONIC INSTRUMENTATION**

**Objective Exam**

**Name:** \_\_\_\_\_ **Hall Ticket No.**

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**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**

**I Choose the correct alternative:**

1. Square wave testing first became widely used in the testing of \_\_\_\_\_ amplifiers. [      ]  
A) Power                      B) Video                      C) Audio                      D) Push pull class B
2. A Wheatstone bridge cannot be used for precision measurements because errors are introduced into on account of [      ]  
A) Resistance of connecting leads                      B) Contact resistances  
C) Thermo electric effects                      D) all the above
3. Kelvin bridge is used to measure the [      ]  
A) high frequencies                      B) high capacitances                      C) low resistances                      D) low inductances
4. In a reed type frequency meters all the reeds [      ]  
A) Have the same natural frequency  
B) Have different natural frequency  
C) Have different natural frequency but the natural frequency of adjacent reeds is +/- 0.5Hz  
D) None of the above
5. In instruments DC amplifiers are most commonly used for [      ]  
A) Increase power available                      B) to amplify voltage or current  
C) Provide the desired load impedance                      D) B & C.
6. The rate at which the output of the amplifier can reach the current level during Saturation is called [      ]  
A) Offset drift                      B) Dynamic slewing rate                      C) Common mode gain                      D) Trans conductance
7. The number of digits in a counter is related to [      ]  
A) Required frequency range                      B) the clock frequency  
C) Clock accuracy                      D) All of these
8. The amount by which the loop gain is less than 0dB, when the phase of loop gain is 0 is called [      ]  
A) Phase margin                      B) Gain margin                      C) Noise figure                      D) none of these.
9. The high frequency stations broadcast at frequencies between [      ]  
A) 3 and 30MHz                      B) 10 and 75KHz                      C) 3 and 75KHz                      D) 10 and 30MHz.
10. Synchronous detector output voltage is proportional to the [      ]  
A) Addition of input signal and reference signal                      B) Subtraction of input signal and reference signal  
C) Product of input signal and reference signal                      D) Ratio of input signal and reference signal.

**Cont.....2**

**Code No: 55044**

**:2:**

**Set No. 2**

**II Fill in the blanks**

11. The primary difference between the peak- responding voltmeter and the average responding voltmeter is the use of a \_\_\_\_\_ with \_\_\_\_\_
12. Digital instruments have input impedance of the order of \_\_\_\_\_ohms
13. The average value of the one-half cycle of the sine wave is  $V_a =$  \_\_\_\_\_
14. The gain in decibels is defined as  $G =$  \_\_\_\_\_
15. Peak to peak detector is sometimes called as \_\_\_\_\_
16. High resistances are provided with a guard with a guard terminal. The guard terminal is used to \_\_\_\_\_
17. The vector impedance meter uses a phase locked sampling system to obtain and operate in a frequency range of from \_\_\_\_\_ to \_\_\_\_\_
18. The loss in decibels is defined as  $L =$  \_\_\_\_\_
19. Schering Bridge is used in \_\_\_\_\_ frequency bridges.
20. In frequency measurements input signal is first supplied to a signal shaper which converts the input signals(pulses) to \_\_\_\_\_ pulses

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**Code No: 55044**

**Set No. 3**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**III B.Tech. I Sem., I Mid-Term Examinations, September – 2011**

**PRINCIPLES OF ELECTRONIC INSTRUMENTATION**

**Objective Exam**

**Name:** \_\_\_\_\_ **Hall Ticket No.**

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**Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**

**I Choose the correct alternative:**

1. Kelvin bridge is used to measure the [      ]  
A) high frequencies      B) high capacitances      C) low resistances      D) low inductances
2. In a reed type frequency meters all the reeds [      ]  
A) Have the same natural frequency  
B) Have different natural frequency  
C) Have different natural frequency but the natural frequency of adjacent reeds is  $\pm 0.5\text{Hz}$   
D) None of the above
3. In instruments DC amplifiers are most commonly used for [      ]  
A) Increase power available      B) to amplify voltage or current  
C) Provide the desired load impedance      D) B & C.
4. The rate at which the output of the amplifier can reach the current level during Saturation is called [      ]  
A) Offset drift      B) Dynamic slewing rate      C) Common mode gain      D) Trans conductance
5. The number of digits in a counter is related to [      ]  
A) Required frequency range      B) the clock frequency  
C) Clock accuracy      D) All of these
6. The amount by which the loop gain is less than 0dB, when the phase of loop gain is 0 is called [      ]  
A) Phase margin      B) Gain margin      C) Noise figure      D) none of these.
7. The high frequency stations broadcast at frequencies between [      ]  
A) 3 and 30MHz      B) 10 and 75KHz      C) 3 and 75KHz      D) 10 and 30MHz.
8. Synchronous detector output voltage is proportional to the [      ]  
A) Addition of input signal and reference signal      B) Subtraction of input signal and reference signal  
C) Product of input signal and reference signal      D) Ratio of input signal and reference signal.
9. Square wave testing first became widely used in the testing of \_\_\_\_\_ amplifiers. [      ]  
A) Power      B) Video      C) Audio      D) Push pull class B
10. A Wheatstone bridge cannot be used for precision measurements because errors are introduced into on account of [      ]  
A) Resistance of connecting leads      B) Contact resistances  
C) Thermo electric effects      D) all the above

**Cont.....2**

**Code No: 55044**

**:2:**

**Set No.3**

**II Fill in the blanks**

11. The average value of the one-half cycle of the sine wave is  $V_a =$  \_\_\_\_\_
12. The gain in decibels is defined as  $G =$  \_\_\_\_\_
13. Peak to peak detector is sometimes called as \_\_\_\_\_
14. High resistances are provided with a guard with a guard terminal. The guard terminal is used to \_\_\_\_\_
15. The vector impedance meter uses a phase locked sampling system to obtain and operate in a frequency range of from \_\_\_\_\_ to \_\_\_\_\_
16. The loss in decibels is defined as  $L =$  \_\_\_\_\_
17. Schering Bridge is used in \_\_\_\_\_ frequency bridges.
18. In frequency measurements input signal is first supplied to a signal shaper which converts the input signals(pulses) to \_\_\_\_\_ pulses
19. The primary difference between the peak- responding voltmeter and the average responding voltmeter is the use of a \_\_\_\_\_ with \_\_\_\_\_
20. Digital instruments have input impedance of the order of \_\_\_\_\_ ohms

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**Code No: 55044**

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**Set No. 4**

**II Fill in the blanks**

11. Peak to peak detector is sometimes called as \_\_\_\_\_
12. High resistances are provided with a guard with a guard terminal. The guard terminal is used to \_\_\_\_\_
13. The vector impedance meter uses a phase locked sampling system to obtain and operate in a frequency range of from \_\_\_\_\_ to \_\_\_\_\_
14. The loss in decibels is defined as  $L =$  \_\_\_\_\_
15. Schering Bridge is used in \_\_\_\_\_ frequency bridges.
16. In frequency measurements input signal is first supplied to a signal shaper which converts the input signals(pulses) to \_\_\_\_\_ pulses
17. The primary difference between the peak- responding voltmeter and the average responding voltmeter is the use of a \_\_\_\_\_ with \_\_\_\_\_
18. Digital instruments have input impedance of the order of \_\_\_\_\_ ohms
19. The average value of the one-half cycle of the sine wave is  $V_a =$  \_\_\_\_\_
20. The gain in decibels is defined as  $G =$  \_\_\_\_\_

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