

Online Examinations (Even Sem/Part-I/Part-II Examinations 2020 - 2021)

Course Name - –Analog Circuits

Course Code -PCC-EC402

* You can submit the form ONLY ONCE.

* Fill the following information for further process.

* Required

1. Email *

2. Name of the Student *

3. Enter Full Student Code *

4. Enter Roll No *

5. Enter Registration No *

6. Enter Course Code *

7. Enter Course Name *

8. *

Mark only one oval.

- Diploma in Pharmacy
- Bachelor of Pharmacy
- B.TECH.(CSE)
- B.TECH.(ECE)
- BCA
- B.SC.(CS)
- B.SC.(BT)
- B.SC.(ANCS)
- B.SC.(HN)
- B.Sc.(MM)
- B.A.(MW)
- BBA
- [B.COM](#)
- B.A.(JMC)
- BBA(HM)
- BBA(LLB)
- B.OPTOMETRY
- B.SC.(MB)
- B.SC.(MLT)
- B.SC.(MRIT)
- B.SC.(PA)
- LLB
- [B.SC\(IT\)-AI](#)
- B.SC.(MSJ)
- Bachelor of Physiotherapy
- B.SC.(AM)
- Dip.CSE
- Dip.ECE
- [DIP.EE](#)
- DIP.CE

- [DIP.ME](#)
- PGDHM
- MBA
- M.SC.(BT)
- M.TECH(CSE)
- LLM
- M.A.(JMC)
- M.A.(ENG)
- M.SC.(MATH)
- M.SC.(MB)
- MCA
- M.SC.(MSJ)
- M.SC.(AM)
- M.SC.CS)
- M.SC.(ANCS)
- M.SC.(MM)
- B.A.(Eng)

Answer all the questions. Each question carry one mark.

9. 1.Which of the following is not true in the circuit for digital-to- analog voltage converter?

Mark only one oval.

- Some logic circuitry
- A resistor network
- A reference voltage
- A resonant circuit

10. 2. What is the value of LSB of an 8-bit DAC for 0-12.8 V range?

Mark only one oval.

- 1.6 V
- 50mV
- 0.625
- 1.28V

11. 3. Stability can be improved in an op-amp by

Mark only one oval.

- Pole zero compensation
- Dominant pole compensatio
- Leads compensation
- All of these

12. 4. For an active integrator , the overall gain

Mark only one oval.

- Increase with frequency of input
- Decrease with input frequency
- Constant with frequency
- None of these

13. 5.The resonant frequency of a Wien-bridge oscillator is around

Mark only one oval.

- 10 Hz
- 10 KHz
- 100 KHz
- 10MHz

14. 6.Voltage regulator normally uses.....

Mark only one oval.

- Positive feedback
- Negative feedback
- No feedback
- Phase limiting

15. 7.R-C coupling is proper in low-level AF amplifier because it

Mark only one oval.

- Is inexpensive and needs no adjustment
- Has better low frequency response
- Needs low voltage battery
- Provides an output signal in phase with input signal

16. 8.An OPAMP has

Mark only one oval.

- Equal input and output resistance
- Low input resistance and a large output resistance
- Large input resistance and low output resistance
- None of these

17. 9.The cut-in point of a capacitor filter is_____

Mark only one oval.

- The instant at which the conduction starts
- The instant at which the conduction stops
- The time after which the output is not filtered
- The time during which the output is perfectly filtered

18. 10.The inductor is placed in the L section filter because_____

Mark only one oval.

- It offers zero resistance to DC component
- It offers infinite resistance to DC component
- It bypasses the DC component
- It bypasses the AC component

19. 11. The output waveform of CLC filter is superimposed by a waveform referred to as _____

Mark only one oval.

- Square wave
- Triangular wave
- Saw tooth wave
- Sine wave

20. 12. A common mode signal is applied to

Mark only one oval.

- The non-inverting input
- The inverting input
- Top of tail resistor
- Both inputs

21. 13. Wein bridge oscillator has the following disadvantage

Mark only one oval.

- It can generate frequency up to 1 MHz only
- It requires large number of components
- Output is constant
- There is a loading effect

22. 14. An Wein bridge oscillator uses

Mark only one oval.

- Positive feedback
- Negative feedback
- Both types of feedback
- An LC tank circuit

23. 15. We use crystal oscillator because

Mark only one oval.

- It gives high output voltage
- It works at high frequency
- Frequency of oscillation remains substantially constant
- It requires very low dc supply voltage

24. 16. Which topology of feedback amplifier has very high input and output impedances?

Mark only one oval.

- Voltage series feedback
- Voltage shunt feedback
- Current series feedback
- Current shunt feedback

25. 17. Voltage shunt feedback amplifier is a

Mark only one oval.

- Transconductance amplifier
- Transresistive amplifier
- Voltage amplifier
- Current amplifier

26. 18. How many h-parameters are there for a transistor?

Mark only one oval.

- Four
- Two
- Five
- Three

27. 19. The parameter h_{ie} stands for input impedance in

Mark only one oval.

- CB arrangement with output shorted
- CC arrangement with output shorted
- CE arrangement with output shorted
- None of these

28. 20.The magnitude of voltage output of Schmitt trigger

Mark only one oval.

- Always low
- Always high
- Either a low or a high
- A sine wave

29. 21. The voltage gain of single-stage CE amplifier increases with

Mark only one oval.

- Increase in ac load resistance
- Decrease in ac load resistance
- Increase in source resistance
- Increase r_e

30. 22. an integrator circuit value of $RC=1$, the output voltage $t=4$ sec for $V_i= 2v$ is

Mark only one oval.

- 8 V
- 2 V
- 4 V
- 6 V

31. 23. The input resistance of 741 OPAMP is

Mark only one oval.

- 100 Ω
- Approx. 20 k Ω
- Approx. 2 M Ω
- 20 M Ω

32. 24. An ideal OP-AMP has bandwidth

Mark only one oval.

- Zero
- Small
- Large
- Infinite

33. 25. Voltage controlled oscillators are used commonly in

Mark only one oval.

- Pulse Modulators
- Frequency Modulators
- Phase Clocked loops
- All of the above

34. 26. The resolution of a DAC depends on which of the following?

Mark only one oval.

- The number of bits
- Monotonicity
- Reference voltage
- The values of resistances

35. 27. How many bits will a D/A converter use so that its full-scale output voltage is 5 V and its resolution is at the most 10mV?

Mark only one oval.

- 5
- 7
- 9
- 11

36. 28. An 8-bit D/A converter has a full scale output voltage of 20V. The output voltage when the input is 11011011, is

Mark only one oval.

- 160 V
- 78 V
- 20 V
- 17 V

37. 29.If the input to the ideal comparator is a sinusoidal signal of 8 V (peak to peak) without any DC component, then the output of the comparator has a duty cycle of

Mark only one oval.

- 1/2
- 1/3
- 1/6
- 1/12

38. 30.A 12 bit A/D converter has range of 0-10 V. What is the approximate resolution of the converter

Mark only one oval.

- 1 mV
- 2.4mV
- 2.5 μ V
- 12mV

39. 31.The equivalent resistance provided by the switched capacitor circuit is

Mark only one oval.

- 1/(Cf)
- Cf
- f/C
- None of these

40. 32. For a CE amplifier, dc load line is which one of the following plots?

Mark only one oval.

- IC versus VCE for a given value of RC and VCC
- IB versus VBE for a given value of RC and VCC
- IB versus VCE for a given value of IB
- IC versus VCB for a given value of IE for a given value VCC and RC

41. 33. The point of intersection of the dc load with VCE active

Mark only one oval.

- VCE=VCC, IC = 0
- VBE= VCC, IC=0
- VCE=0, IC= 0
- VBE=0, IB=0

42. 34. An operational amplifier possesses

Mark only one oval.

- Very large input resistance and very large output resistance
- Very large input resistance and very small output resistance
- Very small input resistance and very small output resistance
- Very small input resistance and very large output resistance.

43. 35. The common mode rejection ratio (CMRR) of a differential amplifier (where A_d = differential gain , A_c = common mode gain) is defined as

Mark only one oval.

- A_d/A_c
- $(A_d - A_c)/A_d$
- $2 \log_{10} A_d/A_c$
- $2 \log_e A_d/A_c$

44. 36. For a given op-amp , $CMRR = 10^5$ and differential gain = 10^5 . What is the common mode gain of the op-amp ?

Mark only one oval.

- 10^{10}
- $2 * 10^5$
- 10^5
- 1

45. 37. An op-amp IC should have

Mark only one oval.

- 741
- 742
- 743
- 740

46. 38.The output voltage of an op-amp is $V \sin \omega t$. Slew rate is

Mark only one oval.

$V \cos \omega t$

ω

$V\omega$

V/ω

47. 39. The voltage gain of an ideal voltage follower is

Mark only one oval.

<1

1

Zero

Infinity

48. 40.Instrumentation amplifiers are used primarily in

Mark only one oval.

High noise environment

Medical equipment

Test instruments

Filter circuits.

49. 41. In case of active integrator if the output voltage is larger than VCC, overall gain

Mark only one oval.

- Increase
- Decrease
- Remains constant
- None of the above

50. 42. Common-emitter amplifier circuit with emitter feedback, the input impedance is equal to

Mark only one oval.

- h_{fe}
- R_E
- h_{fe}/R_E
- $h_{fe}R_E$

51. 43. The main application of a common-collector or emitter follower circuit is

Mark only one oval.

- Impedance matching
- Low impedance circuit
- Power amplifier
- None of these

52. 44.If the emitter bypass capacitor is removed from a CE amplifier circuit ,.....
is decreased significantly.

Mark only one oval.

- Current gain
 Voltage gain
 Input impedance
 Output impedance

53. 45.A quartz crystal oscillator consists of

Mark only one oval.

- Only series resonant frequency
 Only parallel resonant frequency
 Both series and parallel frequencies
 Neither series nor parallel frequency.

54. 46. Which of the following oscillators is used for generating low frequencies?

Mark only one oval.

- RC phase shift oscillator
 LC oscillato
 Wien-bridge oscillator
 Blocking oscillator

55. 47. Which of the following is not an essential element of d.c. power supply

Mark only one oval.

- Rectifier
- Filter
- Voltage Regulator
- Voltage Amplifier

56. 48. A voltage regulator is a circuit which

Mark only one oval.

- Converts the dc voltage into ac voltage.
- Smoothens the ac variations in dc output voltage
- Maintains a constant dc output voltage in spite of the fluctuations in ac input voltage or load current
- None of the above.

57. 49. The main function of a voltage regulator is to provide a nearly..... output voltage.

Mark only one oval.

- Sinusoidal
- Constant
- Smooth
- Fluctuating

58. 50.Voltage regulator normally use.....

Mark only one oval.

- Positive feedback
- Negative feedback
- No feedback
- Phase limiting

59. 51.If the output of voltage regulator varies from 15 to 14.7V between the minimum & maximum load current, the load regulation is

Mark only one oval.

- 0
- 1%
- 2%
- 5%

60. 52. A 78XX series of voltage regulator produces an output voltage that is

Mark only one oval.

- Positive
- Negative
- Unregulated
- Either positive or negative

61. 53.A series regulator is more efficient than a shunt regulator because

Mark only one oval.

- It has series resistor
- It can boost the voltage
- The pass transistor replaces the series resistor
- It switches the pass transistor on & off

62. 54. The voltage gain of an OP AMP non-inverting amplifier is

Mark only one oval.

- Less than unity
- Greater than unity
- Equal to unity
- None of these

63. 55.An ideal OP AMP has

Mark only one oval.

- Infinite input impedance
- Zero output impedance
- Infinite voltage gain
- All of the these

64. 56. Which of the following electrical characteristics is not exhibited by an ideal op-amp?

Mark only one oval.

- Infinite voltage gain
- Infinite bandwidth
- Infinite output resistance
- Infinite slew rate

65. 57. In a shunt capacitor filter, the mechanism that helps the removal of ripples is

Mark only one oval.

- The current passing through the capacitor
- The property of capacitor to store electrical energy
- The voltage variations produced by shunting the capacitor
- Uniform charge flow through the rectifier

66. 58. Consider the non-inverting OP-AMP with R_1 (input resistance) = $1\text{k}\Omega$, R_2 (feedback resistance) = $10\text{k}\Omega$ and power supply voltages $\pm 12\text{V}$. Find the output voltage for an input voltage 0.05V

Mark only one oval.

- 0.50V
- +0.50V
- +0.55V
- 0.55V

67. 59.The Op-amp can amplify _____.

Mark only one oval.

- A.C. signals only
- D.C. signals only
- both A.C. and D.C. signals
- neither D.C. nor A.C. signals

68. 60.Major part of the filtering is done by the first capacitor in a CLC filter because _____

Mark only one oval.

- The capacitor offers a very low reactance to the ripple frequency
- The capacitor offers a very high reactance to the ripple frequency
- The inductor offers a very low reactance to the ripple frequency
- The inductor offers a very high reactance to the ripple frequency

This content is neither created nor endorsed by Google.

Google Forms