

FBQ1: The two components of a $\hat{\epsilon}$. amplifier are amplifier system and the feedback system

Answer: feedback

FBQ2: There are $\hat{\epsilon}$ basic types of feedback arrangements

Answer: Two

FBQ3: The feedback ration \hat{I}^2 is often determined by the ratio of two $\hat{\epsilon}$.

Answer: resistors

FBQ4: The Ideal $\hat{\epsilon}$. parameters are derived to simplify circuit analysis

Answer: Op Amp

FBQ5: The two basic configurations of the operational amplifier are the noninverting op amp configuration and the inverting $\hat{\epsilon}$ Op Amp

Answer: Inverting

FBQ6: The $\hat{\epsilon}\hat{\epsilon}\hat{\epsilon}$.. parameters are specifications used in the analysis of transistor amplifiers

Answer: Hybrid

FBQ7: The transistor can serve either as a ---- or an amplifier

Answer: switch

FBQ8: $\hat{\epsilon}\hat{\epsilon}\hat{\epsilon}$.. can be defined as the setting up of the DC voltages and current in an electronic circuit

Answer: Biasing

FBQ9: Integration is a mathematical process of determining the area under a -----

Answer: curve

FBQ10: The adder circuit of the operational amplifier provides an output voltage proportional to the algebraic sum of the inputs, each multiplied by a $\hat{\epsilon}$. gain factor

Answer: constant

FBQ11: $\hat{\epsilon}$. is the process by which the rate of change of a curve at any given point can be determined

Answer: Differentiator

FBQ12: The differentiator is basically a high pass $\hat{\epsilon}$.

Answer: filter

FBQ13: There are two types of ----- power supply namely unregulated Power Supply and Regulated Power Supply

Answer: DC

FBQ14: The $\hat{\epsilon}$. is responsible for stepping down the voltage level of incoming AC mains supply

Answer: transformer

FBQ15: A power supply whose terminal voltage is affected significantly by the amount of load. As the load draws more current the DC terminal voltage becomes less

Answer: Unregulated

FBQ16: The transformer steps up the voltage from the ac mains

Answer: step-up

FBQ17: The power supply utilizes the step down transformer

Answer: DC

FBQ18: The purpose of the rectifier is to convert the AC signal from the AC to DC

Answer: transformer

FBQ19: There are two classes of rectifiers namely the half wave rectification and the full wave rectification

Answer: full

FBQ20: The efficiency of rectification is given by the ratio of the output DC power to the total amount of input power supplied to the circuit

Answer: efficiency

FBQ21: Efficiency of Rectifiers is also called the conversion efficiency

Answer: conversion

FBQ22: In the positive feedback arrangement, the feedback voltage is in the same phase as the input voltage and it increases the input voltage amplitude

Answer: positive

FBQ23: The operational amplifier is a direct coupled amplifier capable of amplifying signals from DC up to a few MHz

Answer: operational amplifier

FBQ24: The reverse voltage is the maximum voltage the diode has to withstand without failing when it is not conducting

Answer: Peak Inverse

FBQ25: The measure of the AC components present in the rectifier output is known as the ripple factor

Answer: Ripple

FBQ26: Biasing can be defined as the setting up of the DC voltages and current in an electronic circuit

Answer: electronic

FBQ27: Load regulation is the change in output voltage between no load current condition and full load current condition, expressed in percentage

Answer: Regulation

FBQ28: A _____ is a metal structure usually with fins that is bonded, clipped or clamped to the device package to facilitate heat flow from case to ambient

Answer: heat sink

FBQ29: The load lines enables the _____ of the transistor characteristics

Answer: visualization

FBQ30: The equation $(A + B) + C = A + (B + C)$ represents _____ laws of Boolean algebra?

Answer: Associative

FBQ31: The equation $A(B + C) = AB + AC$ represents _____ laws of Boolean algebra

Answer: Distributive

FBQ32: The equation $A(A + B) = A$ represents _____ laws of Boolean algebra

Answer: Redundance

FBQ33: The ratio of change in output to a given change in input supply voltage is regarded as _____ regulation

Answer: line

FBQ34: _____ factor is the ratio of the rms value of AC components of the output to the DC value of the load voltage

Answer: ripple

FBQ35: Peak Inverse Voltage is the maximum voltage the _____ has to withstand without failing when it is non conducting

Answer: diode

FBQ36: The ratio of the output DC power to the overall amount of input power supplied to a circuit is regarded as the _____ of rectification.

Answer: efficiency of rectification

FBQ37: The _____ is responsible for stepping down the voltage level of incoming ac mains supply

Answer: transformer

FBQ38: Differentiator is the process by which the rate of change of a _____ at any given point can be determined

Answer: curve

FBQ39: Voltage Series Fed Feedback is also referred to as _____ derived series-feedback

Answer: Shunt

FBQ40: Typical _____ are subject to changes such as temperature, DC supply levels and ageing

Answer: amplifiers

FBQ41: Feedback is made up of Amplifier system and the feedback system
Answer: amplifier

FBQ42: OR gate is otherwise regarded as ---- OR
Answer: inclusive

FBQ43: Coupling Circuit, the Load Circuit and the Bias are components parts of an amplifier circuit
Answer: amplifier

FBQ44: The total input impedance of the circuit is the combination of R_1 , R_2 and R_{in} (base)
Answer: parallel

FBQ45: Voltage gain refers to the ratio between the output voltage and the input voltage
Answer: gain

FBQ46: Professionally speaking, Junction FET is commonly abbreviated as JFET
Answer: JFET

FBQ47: There are two basic types of feedback arrangements namely positive and negative feedback
Answer: feedback

FBQ48: There are basically four types of feedback amplifier circuit topologies depending on how the signals are added at the input
Answer: four

FBQ49: Shunt Derived Series-Fed Feedback is also known as voltage series feedback
Answer: Voltage

FBQ50: The Ideal Op Amp parameters are derived to simplify analysis
Answer: circuit

MCQ1: The rate of loss of heat is proportional to the temperature difference between the junction and the ambient
Answer: Junction

MCQ2: In free air operation, the thermal resistance consists of two components namely junction thermal resistance and thermal resistance from core to ambient
Answer: thermal resistance from junction to case

MCQ3: Basic laws of Boolean algebra are implemented as switching devices called logic gates
Answer: logic gates

MCQ4: DeMorgan's Theorem allows gates to be converted to others by simply
Answer: Inverting the inputs of the selected gate

MCQ5: The following gates are used to convert gates to others except

Answer: Convert all NOR operations to ANDs

MCQ6: The Inclusive OR is otherwise called

Answer: The OR gate

MCQ7: $\hat{\epsilon}$ is a table which gives the output state for all the possible input combination

Answer: Truth table

MCQ8: If Input A = 0 and Input B = 1, from the truth table, what is the value of the output C in an OR gate?

Answer: 1

MCQ9: If Input A = 1 and Input B = 1, from the truth table, what is the value of the output C in an OR gate?

Answer: 1

MCQ10: The AND gate can also be realized using the $\hat{\epsilon}$. and the transistor.

Answer: diode

MCQ11: If Input A = 1 and Input B = 1, from the truth table, what is the value of the output C in an AND gate?

Answer: 1

MCQ12: If Input A = 1, Input B = 1 and Input C = 0 from the truth table, what is the value of the output D in an AND gate?

Answer: 0

MCQ13: If Input A = 1, Input B = 1 from the truth table, what is the value of the output C in a NOR gate?

Answer: 0

MCQ14: If Input A = 1, Input B = 0 from the truth table, what is the value of the output C in a NOR gate?

Answer: 0

MCQ15: The NAND gate is also a universal gate as it can be constructed to get either an $\hat{\epsilon}$. or an OR gate operation.

Answer: AND gate

MCQ16: If Input A = 1, Input B = 0 from the truth table, what is the value of the output C in a NAND gate?

Answer: 1

MCQ17: If Input A = 0, Input B = 1 from the truth table, what is the value of the output C in a NAND gate?

Answer: 0

MCQ18: If Input A = 0, Input B = 0 from the truth table, what is the value of the output C

in a NAND gate?

Answer: 1

MCQ19: The ratio of the rms value of AC components to the DC value of load voltage is referred to as the _____

Answer: Rectification Factor

MCQ20: In the Series Derived Shunt-Fed Feedback Topology the input is connected in _____

Answer: parallel

MCQ21: Zener diode can be applied in the following application areas except

Answer: Voltage Converter

MCQ22: In _____, the transistor operates somewhere between saturation and cut-off state

Answer: Linear Regulator

MCQ23: A major disadvantage of the _____ pass transistor regulator is that they are inefficient

Answer: series

MCQ24: The positive feedback current is used mainly in _____

Answer: oscillators

MCQ25: In the voltage divider bias, the DC bias Voltage and Current are _____

Answer: Dependent on temperature

MCQ26: The OP AMP differentiator is basically a _____ pass filter

Answer: high

MCQ27: Using a truth table, the expression $A + A'B$ can be shown to be _____

Answer: $A + B$

MCQ28: In the half wave rectifier, the output ripple frequency is _____

Answer: Twice the input frequency

MCQ29: Which of the following is true about BJT transistors?

Answer: BJTs are current controlled devices

MCQ30: Any amplifier circuit has the following parts EXCEPT

Answer: The Electric Circuit

MCQ31: Given $I_{DSS} = 12\text{mA}$, $V_{GS}(\text{off}) = -5\text{V}$, determine the value of I_D at $V_{GS} = 0, -1, -4$

Answer: 0.48mA

MCQ32: A digital signal 101011 is applied to a NOT gate. what will be the NOT gate output

Answer: 010100

MCQ33: In the common emitter configuration the output is gotten from the _____

Answer: Collector

MCQ34: What are the limitations of batteries as the commonest source of AC supply

Answer: Availability

MCQ35: The following are examples of voltage regulators except

Answer: Zener diode voltage transformers

MCQ36: The following are components of DC power supply except

Answer: Inverter

MCQ37: There are DC power classified as either; series regulators shunt regulators or

Answer: switching regulators

MCQ38: Voltage regulators ensure that the terminal voltage remains unchanged regardless of the Δ in the input voltage provided the operational limits are not exceeded

Answer: variations

MCQ39: Ripple factor is a measure of the Δ (fluctuating components) present in the rectifier output

Answer: AC components

MCQ40: The following are examples of voltage regulators except Δ

Answer: Transformer diode

MCQ41: The operational amplifier is a direct coupled amplifier capable of Δ ... signals from DC up to a few MHz

Answer: Amplifying

MCQ42: The total input impedance of the circuit is the Δ combination of R_1 , R_2 and $R_{in}(\text{base})$.

Answer: parallel

MCQ43: The Δ is a low pass filter and produces more output for low frequency signals

Answer: calculator

MCQ44: Amplifiers have a frequency range over which the gain and phase shift are approximately Δ .

Answer: constant

MCQ45: The Δ parameters are derived to simplify circuit analysis

Answer: Ideal Op Amp

MCQ46: The Δ configuration has the input signal connected to its non-inverting

input

Answer: Non-inverting op amp

MCQ47: The \oplus gate is also known as an inverter

Answer: NAND

MCQ48: The \oplus gate is also referred to as a universal gate

Answer: NOR

MCQ49: If a digital signal 101011 is applied to a NOT gate what will be the NOT gate output?

Answer: 0 1 0 1 0 0

MCQ50: Any amplifier circuit has the following parts except \oplus

Answer: DC Analysis