GRT INSITITUTE OF ENGINEERING AND TECHNOLOGY –TIRUTTANI – 631209

Department of Electronics and Communication Engineering
EC8452- ELECTRONIC CIRCUITS II (Regulation 2017)

MULTIPLE CHOICE QUESTIONS

1. **A tuned amplifier uses ……. load**
   a. Resistive
   b. Capacitive
   c. LC tank
   d. Inductive

2. **A tuned amplifier is generally operated in ……. operation**
   a. Class A
   b. Class C
   c. Class B
   d. None of the above

3. **At series or parallel resonance, the circuit power factor is ……..**
   a. 0
   b. 5
   c. 1
   d. 8

4. **A resonant circuit contains …… elements**
   a. R and L only
   b. R and C only
   c. Only R
   d. L and C

5. **At series resonance, voltage across L is ……. voltage across C**

a. Equal to but opposite in phase to
b. Equal to but in phase with
c. Greater than but in phase with
d. Less than but in phase with

6. To amplify the selective range of frequencies, the resistive load in amplifier is replaced by a
a. Tuned Circuits
b. Inductor
c. Transformer
d. Capacitor

7. At parallel resonance, the net reactive component circuit current is ……
a. Capacitive
b. Zero
c. Inductive
d. None of the above

8. For frequencies below resonant frequency, a series LC circuit behaves as a …… load
a. Resistive
b. Capacitive
c. Inductive
d. None of the above\

9. In series resonance, there is ……
a. Voltage amplification
b. Current amplification
c. Both voltage and current amplification
d. None of the above

10. The Q of a tuned circuit refers to the property of ……..
a. Sensitivity
b. Fidelity
c. Selectivity
d. None of the above

11. Tuned amplifier is never used in…….

a. Radio receiver
b. Radio transmitter
c. TV receivers
d. Public address system

12. The impedance of an LC parallel resonance circuits becomes

a. $\boldsymbol{Z_r = \frac{L}{RC}}$
b. $Z_r = \frac{LR}{C}$
c. $Z_r = \frac{LC}{R}$
d. $Z_r = \frac{RC}{L}$

13. For frequencies below the resonant frequency , a parallel LC circuit behaves as a …… load

a. Inductive
b. Resistive
c. Capacitive
d. None of the above

14. Double tuned circuits are used in ……. stages of a radio receiver

a. IF
b. Audio
c. Output
d. None of the above

15. In the double tuned circuit, if the mutual inductance between the two tuned circuits is decreased, the level of resonance curve ……..

a. Remains the same
b. Is lowered
c. Is raised
d. None of the above

16. A circuit that removes positive or negative parts of waveform is called

a. clamper
b. clipper
c. diode clamp
d. limiter

17. What type of diode circuit is used to clip off portions of signal voltages above or below certain levels?
a. clipper or limiter
b. clamper
c. IC voltage regulator
d. none of the above

18. Astable multivibrator is _____ in any state.
a. Stable
b. Unstable
c. Saturated
d. Both Stable & Saturated

19. Monostable multivibrator can also be termed as _____
a. Full astable multivibrator
b. Half astable multivibrator
c. Half bistable multivibrator
d. Full bistable multivibrator

20. Astable circuit acts as a/an _____
a. Amplifier
b.Oscillator
c. **Relaxation oscillator**
d. Multiplexer

21. Bistable circuit is also known as _____
a.Latch
b.Gate
c.Flip-flop
d. Bidirectional circuit

22. The monostable multivibrator has one quasi-stable state and one unknown state.

a. True

b.False

23. Astable multivibrator cannot be used for frequency division.

a.True

b.False

24. How many stable states in Monostable multivibrator

a.One stable state

b.Two stable state

c.Three stable state

d.No stable state

25. How many stable states in Bistable multivibrator

a.One stable state

b.Two stable state

c.Three stable state

d.No stable state

26. What is the duty cycle of the output of an astable multivibrator?

a. 50%

b. 75%

c. 55%

d. 100%

27. Monostable multivibrator is also referred to as

a. One shot

b. Two shot

c. Three shot

d. Four shot

28. A multivibrator is an electronic circuit used to implement……

a. Oscillator

b. Timer

c. Flip flop

d. All the mentioned

29. If you need to design a relaxation oscillator circuits, the most likely device used is …….

a. BJT

b. UJT
c. TRIAC
d. SCR

30. Capacitor discharge interval in monostable multivibrator
a. Recovery time
b. Refresh time
c. Dynamic time
d. Static time

1. A tuned amplifier has its maximum gain at a frequency of 2MHz and has a bandwidth of 50KHz.calculate the quality factor.
a. 40
b. 100
c. 25
d. 2500

2. The Q of a tuned amplifier is 50. If the resonant frequency for the amplifier is 1000kHZ, then bandwidth is ……
a. 10kHz
b. 40 kHz
c. 30 kHz
d. 20 kHz

3. In double tuned circuits two tuned circuits are connected by
a. Series
b. Parallel
c. Mutual coupling
d. None of these

4. The bandwidth for double tuned amplifier is 20KHZ.calculate the bandwidth if such three stages are cascaded.
a. 22KHz
b. 14.28KHz
c. 24.25KHz
d. 20KHz

5. A tuned circuits has resonant frequency of 1600KHz and a bandwidth of 10KHz.What is the value of its q factor?
a. 16
b. 160

c. 16000
d. 1600

6. **At parallel resonance, the phase angle between the applied voltage and circuit current is …….**
   a. 90^o
   b. 180^o
   c. 0^o
   d. None of the above

7. **The Q of an LC circuit is given by …….**
   a. $2\pi f_r$ x R
   b. R / $2\pi f_r L$
   c. $2\pi f_r L$ / R
   d. $R^2/2\pi f_r L$

8. **Consider the following statements:A clamper circuit**
   1. adds or subtracts a dc voltage to a waveform
   2. does not change the waveform
   3. amplifies the waveform
   Which are correct?

   a. 1, 2
   b. 1, 3
   c. 1, 2, 3
   d. 2, 3

9. **What is the expression for time period of waveform produced by monostable multivibrator**
   a. $T = 0.69(R_1C_1 + R_2C_2)$
   b. $T = 0.69(R_1C_1R_2C_2)$
   c. $T = 1.38(R_1C_1 + R_2C_2)$
   d. $\boldsymbol{T = 0.69RC}$

10. **Which of these statements are true?**
    1.Astable multivibrator can be used for generating square waves
    2. Bistable multivibrator can be used for storing binary information
    a. 1

b. 2

c. 1&2

d. None

11. Which among the below mentioned oscillators does not adopt any kind of feedback mechanism?

a. Wein bridge oscillator

b. UJT relaxation oscillator

c. Phase shift oscillatoir

d. All the mentioned

12. A RC low pass circuits has R=1.5Kohm and C=0.2µf.what is the rise time of the output when excited by a step input?

a. 0.3µs

b. 3µs

c. 0.66ms

d. 6.6ms

13. What is the condition at which low pass filter as an integrator?

a. Time constant <<T

b. Time constant <<T

c. Time constant=T

d. Both Time constant <<T &Time constant <<T

14. What is the time constant of RC circuits?

a. ς=RC

b. ς=1/RC

c. ς=R/C

d. ς=C/R

15. Multivibrator which can produced very shot pulse or much longer rectangular shaped waveform whose leading edge rises in time with an externally applied triggered pulse is……

a. Astable multivibrator
b. Monostable multivibrator
c. Bistable multivibrator
d. Schmitt trigger