Q. 1. In Capacitor and Inductor MTCS: - (AMTH-P 10-115)

(1) Capacitor opposes change in Voltage. (2) Capacitor opposes change in Current (3) Inductor opposes change in Current (4) Both 1 & 3.

Q. 2. In a filter for DC output, MTCS: - (AMTH-P 10-115)

(1) Capacitor is placed in parallel and inductor is in series with the load (2) Capacitor is placed in series with load and inductor is in parallel to load (3) Both Capacitor and inductor is in parallel to load (4) Both 1 & 3

Q. 3. In a Low Pass filter : - (AMTH-P 10-116)

(1) Capacitor is placed in parallel and inductor is in series with the load (2) Capacitor is placed in series with load and inductor is in parallel to load (3) Both Capacitor and inductor is in parallel to load (4) Both 1 & 3

Q. 4. In a Low pass filter MTCS: - (AMTH-P 10-116)

(1) Passes high frequency to output load (2) Passes low frequency to output (3) Passes only Steady DC (4) 1 & 3

Q. 5. An inductive Low pass filter uses: - (AMTH-P 10-116)

(1) Inductor in series with load (2) resistance in series with load (3) capacitor in parallel (4) both 2 & 3

Q. 6. An inductive Low pass filter: - (AMTH-P 10-116)

(1) Blocks the unwanted frequency (2) Short out the unwanted frequency (3) allows all frequency to pass (4) both 2 & 3

Q. 7. An high pass filter: - (AMTH-P 10-116)

(1) Attenuates the frequency lower than cut off frequency (2) Passes the unwanted frequency (3) Passes the high frequency (4) both 1 & 3

Q. 8. MTCS for Low cut filter: - (AMTH-P 10-116)

(1) Known as high pass filter (2) Known as Low pass filter (3) Attenuates the low frequency (4) both 1 & 3

Q. 9. An Band pass filter: - (AMTH-P 10-117)

(1) Combination of High cut and low cut filter (2) Combination of High pass and high cut (3) Combination of low pass and low cut (4) AOA

Q. 10. For Band stop filter MTCS: - (AMTH-P 10-117)

(1) Known as Band reject (2) Notch filter (3) Both 1 & 2 (4) NOA

Q. 11. The Notch filter is a: - (AMTH-P 10-117)

(1) Known as Band reject (2) Have narrow stop band range (3) Have wide band limiter range (4) Both 1 & 2

Q. 12. The Notch filter: - (AMTH-P 10-117)

(1) passes all frequencies above set range (2) Passes all frequencies below set range (3) both 1 & 2 (4) Uses wide band for blocking

Q. 13. Which filter is used to pass Low Frequency & Attenuates High frequency: - (Module-3,)

(1) High Pass. (2) Low pass (3) Band pass (4) Band reject

Q. 14. Which type filter is used for passing particular band of frequency: - (Module-3)

(1) Band pass. (2) Band reject. (3) either 1 or 2 (4) Band stop

Q. 15. A ---------- Filter rejects all frequencies within the specified and passes all those outside this band is a: -

(1) Low pass. (2) High pass. (3) Band pass (4) Band stop

Q. 16. A _____ filter significantly attenuates all frequencies below f_c and passes all frequencies above fc (Cutoff Frequencies)

(1) Low pass. (2) High pass. (3) Band pass (4) Band stop

Q. 17. The bandwidth in a ---------- filter equals the critical frequencies: -

(1) Low pass. (2) High pass. (3) Band pass (4) Band stop

Q. 18. In a certain parallel resonant band-pass filter, the resonant frequency is 14 kHz. If the bandwidth is 4 kHz, the lower frequency

(1) 10 KHz (2) 7 KHz (3) 12 KHz (4) Can not be determined

In a series resonant band-pass filter, a lower value of Q results in

(1) higher resonant frequency (2) a smaller bandwidth (3) . a higher impedance (4) a larger bandwidth

Q. 19. The maximum output voltage of a certain low-pass filter is 15 V. The output voltage at the critical frequency is

(1) 15 Volts (2) 21.21 Volts (3) 10.60 Volts (4) 0 Volts

Q. 20. The same signal in Problem 2 is applied to an RC high-pass filter. If the reactance is zero at the input frequency, the output voltage is

(1). 18 V peak-to-peak (2). zero (3). 9 V peak-to-peak (4). 12.73 V peak-to-peak

Q. 21. At a certain frequency, the output voltage of a filter is 6 V and the input is 12 V. The voltage ratio in decibels is

(1). 12.04 dB 2. 6.02 dB 3. –12.04 dB (4) -6.02 dB

Q. 22. In a certain low-pass filter, fc = 3.5 kHz. Its passband is

(1) 1. 7 kHz (2) 0 Hz to 3.5 KHz (3). 0 Hz (4). 3.5 kHz

Q. 23. A sinusoidal voltage with a peak-to-peak value of 18 V is applied to an RC low-pass filter. If the reactance at the input frequency is zero, the output voltage is

(1). 12.74 V peak-to-peak (2). 9 V peak-to-peak (3). 18 V peak-to-peak (4). zero

Q. 24. An electrical filter is a

(1) Phase-selective circuit (2) Frequency-selective circuit

(3) Filter-selective circuit (4) None of the mentioned

Q. 25. Filters are classified as:--

(1) Analog or digital (2) Passive or active

(3) Audio or radio frequency (4) All of the mentioned

Q. 26. Why inductors are not preferred for audio frequency?

a) Large and heavy b) High power dissipation

c) High input impedance d) None of the mentioned

Q. 27. The problem of passive filters is overcome by using
a) Analog filter b) Active filter c) LC filter d) A combination of analog and digital filters

Q. 28. What happens if inductors are used in low frequency applications?
a) Enhance inductor usage b) No losses occurs
c) Degrades inductor performance d) Low power dissipation

Q. 29. Find out the incorrect statement about active and passive filters.
a) Gain is not attenuated in active filter b) Passive filters are less expensive c) Active filter does not cause loading of source
d) Passive filters are difficult to tune or adjust

Q. 30. What are the most commonly used active filters?
a) All of the mentioned b) Low pass and High pass filters c) Band pass and Band reject filters
d) All-pass filters

Q. 31. Ideal response of filter takes place in
a) Pass band and stop band frequency b) Stop band frequency c) Pass band frequency d) None of the mentioned

Q. 32. By increasing value of filter capacitor or load resistance, ripple factor can be: -
(1) Increased (2) lowered (3) infinite
(4) zero

Q. 33. Load regulation means that output voltage is constant over range of

(1) load current (2) dark current (3) output voltage (4)input voltage

Q. 34. A filter in which capacitor connected from rectifier output to ground is called

(1) resistor input filter. (2) resistor output filter (3) capacitor output filter (4) capacitor input filter

Q. 35. If RMS voltage of full wave bridge rectifier is 115V than peak primary voltage is equals to

(1) 15.6V. (2) 163V (3) 123V (4) 453V

Q. 36. Filters are implemented with

(1) resistor. (2) capacitor. (3) inductor (4) diode

Q. 37. What is an ideal value of attenuation for the frequencies in pass band especially for a cascade configuration?

a. Zero b. Unity c. Infinity d. Unpredictable

Q. 38. In band elimination filter, the frequency of resonance of individual arms is geometric _____

(1) Mean of two cut-off frequencies. (2) Difference of two cut-off frequencies. (3) Product of two cut-off frequencies

(4) Division of two cut-off frequencies

Q. 39. What do the high pass filters generally comprise of?

(1) Capacitive series arm. (2) Capacitive shunt arm (3) Both 1 & 4 (4) Inductive shunt arm