1. In a klystron amplifier the input cavity is called buncher cavity and output cavity is catcher cavity.
2. In a TWT the amplitude of resultant wave travelling down the helix increases exponentially.
3. The limitations of the conventional tube IEC effect, LI effect, Transit time.
4. Reflex klystron oscillator is essentially a low power device.
5. TWT devices uses a slow wave structure
6. IMPATT full form impact ionization avalanche transit-time diode.
7. Gunn diode is a transferred electron device(TED)
8. A reflex klystron oscillator uses one cavity resonator
9. The two terms used to describe performance of a directional coupler are coupling and directivity
10.In a klystron amplifier the bunching effect converts velocity modulation into current modulation of beam
11.The space between catcher cavity and buncher cavity in klystron amplifier is called as drift space.
12.The variation in velocity of electrons in accordance with applied RF signal is called as velocity modulation.
13.The external magnetic field in a magnetron is such that lines are parallel to the axis of cathode.
14.RWH Theory full form Ridley Watkins Hilsum.
15. In a reflex klystron oscillator, repeller electrode is at negative potential.
16. Materials used to manufacture Gunn diode is Gallium Arsenide (GaAs)
17. The diagram to show distance time history of electrons in klystron amplifier is called apple gate diagram
18. In Reflex Klystron oscillator optimum transit time should be T= n + (3/4)
19. TWT full form is travelling wave tube.
20. TRAPATT full form is trapped plasma avalanche triggered transit
21. BARITT full form is barrier injection transit-time
22. GUNN diode operates under different modes of oscillation: Transit Time domain mode, Delayed mode, quenched mode, LSA mode
23. Examples of O-type(linear beam) tubes are 2-cavity klystron, reflex klystron and helix twt
24. Magnetron is an example of M-type(crossed-field) tube.
25. The space between cavity gap and repeller electrode in reflex klystron is called repeller space.
26. Efficiency of helix twt is 20 to 40%
27. Efficiency of klystron amplifier is 58%
28. Efficiency of reflex klystron oscillator is 22.78%
29. Attenuator is used to attenuate any reflected waves generated due to impedance mismatch in helix twt.
30. Interaction of electrons and RF signal happens throughout the tube in helix twt.
31. Efficiency of magnetron is 40 to 70%
32. In directional coupler all the 4 ports are perfectly matched.
33. Directional coupler has primary and secondary waveguides.
34. In directional coupler incident power = (received+coupled+reflected) powers
35. Coupling factor= $10 \log_{10}(P_i/P_f)$
36. Directivity= $10 \log_{10}(P_f/P_b)$
37. Isolation= $10 \log_{10}(P_i/P_b)$
38. In magnetron the space between cathode and anode is called as interaction space.
39. In klystron amplifier if two cavities are identical then their beam coupling coefficients are equal.
40. In klystron amplifier one electron bunch is formed for one full cycle of applied RF signal.
41. In klystron amplifier input and output cavities are re-entrant cavities.
42. Example of microwave solid state device is Gunn diode.