1. It is the science and technology of electrons and electronic devices.
A. Electricity B. Electrons **C. Electronics** D. Electronic

2. It is a positive or negative connector which collects or emits a charge.
A. Electrode B. Electrolyte C. Electricity D. Electronics

3. It is an electronde of transistor which gives out charge carriers.
A. Transmitter B. Receiver **C. Emitter** D. Carriter

4. A material which readily permits the flow of free elctrons.
A. Conductor B. Inductor C. Capacitor D. Insulator

5. A material which permits a very limited flow of free electrons.
A. Conductor **B. Inductor** C. Capacitor D. Insulator

6. Microwave relay stations are tall towers that…TV signals, amplify them and …them to the next relay station.
A. Receive/retransmit C. retransmit /send
B. send/retransmit D. retransmit/ Receive

7. The solution of saft, acid, or alkali which eclectrodes are placed is called the…
A. Electrode **B. Electrolyte** C. Current D. Cell

8. The release of electrons with resulting electromotive force caused by the effect of light on some substances.
A. Photoelectricity B. Thermoelectricity C. Piezoelectricity D. Kinetic energy

9. An electronic component in which electrons are released by the energy of light.
A. Transistor B. Light Emitting Diode (LED) C. Infra – red LED **D. Photodiode**

10. Waves produced when a regular disturbance in an electronmagnetic field causes an electric charge to oscillate.
A. Electronmagnetic wave B.Microwaves C. Radio wave D. Short waves

11. The height of wave from the point of equilirium, or *zero value*, to the crest.
A. Amplification B. Amplifier **C. Amplitude** D. Modulation

12.…….is a navigational system that cab locate aircaft.
A. Sonar B. Radio C. Television **D. Radar**

13.…… is a navigational system that cab locate underwater objects.
A. Sonar B. Radio C. Television D. Radar

14.…..can supply more energy than they absorb.
A. Active electronic elements C. batteries, generator, vacuum tubes and transistor
B. Passive electronic elements **D. A & C**

15. ……is an electronic instrument used for measuring electrical voltage.
A. Voltage drop **B. Voltmeter** C. Voltage D. Voltage again

16. Resistor are coded with…….bands to ….. the problems of marking such tall components.
A. Coloured/easy B. Coloured/easily **C. Coloured/ease** D. Colourful/ease

17. Each resistor is marked with colours to indicate its……

A. Component B. Tolerance **C. Value** D. Capacitance

18. A …….is a device which is used to locate hidden metal objects.

A. Metal detector B. Remote control C. Microphone D. Converter

19. It is used to change AC voltages from small to large or from large to small.

A. A multimeter **B. a transformer** C. a logic probe D. a motion sensor

20. It is used to measure very small currents.

A. A millivoltmeter B. A & D C. A logic probe **D. A microammeter**

21. In electronics, it is an electronic circuit used for combining a signal with a carrier wave.

A. Modulator B. Inductor C. Transmitter D. Receiver

22. It is an electronic circuit for sending out signals.

A. Modulator B. Inductor **C. Transmitter** D. Receiver

23. It is an electronic circuit for increasing the size of a signal.

A. Loudspeaker B. Oscillator C. Transistor **D. Amplifier**

24. It is a semiconductor component which only allows current to flow in one direction.

A. Triode **B. Diode** C. Cathode D. Anode

25. It is a coil which resists changes in voltage and current.

A. Amplifier B. Resistor **C. Inductor** D. Current

26. The frequency of carrier wave is measured in……..

A. Watt B. Bit C. Bye **D. Hertz**

27. The ……of a wave is a measure of the number of cycles produced per second.

A. **Frequency** B. amplitude C. oscillation D. Modulation

28. A diode contains a two electrodes, the ……and the ……..

A. Grid/cathode B. cathode/grid **C. cathode/anode** D. anode/grid

29. The radio ……a tuner, a detector, and an AF amplifier.

A. **Consists of** B. Consists off C. Consist of D. Consist off

30. …….is an electronic device for receiving microwave signals transmitted from a satellite.

A. **Satellite receiver** B. Satellite transmitter C. Satellite relay D. Satellite transmission

31. It is a device for controlling equipment from distance.

A. Controlling device **B. Remote control** C. Switch D. Fuse

32. It is an electronic component for opposing the flow of charge.

A. Transistor **B. Resistor** C. Conductor D. Inductor

33. Parallel wires, twisted pair or coaxial cable is generally called……

A. **Transmission line** B. Transfer line C. Transmission wire D. Transfer wire

34. Set of standard values from which all other values can be produced in resistor.

A. Preferred values B. Tolerance **C. Actual values** D. Logical values

35. It is the science and technology of electrons and electronic devices.

A. Electricity B. Electrons **C. Electronics** D. Electronic

36. Communications …….receive TV signals from a ground station, amplify them and relay them back to the earth over an antenna.

A. Cables **B. satellites** C. signals D. stations

37. ……..is defined as devices and systems that transmit electronic or optical signals across long distances.

A. Communications B. Telecommunications C. Telegraphs **D. Telephones**

38. "Point – to – multipoint" telecommunications is referred to……

A. Personal messages C. Personal communications

B. Telephone conversations **D. Broadcasts**

39. In telecommunication, a ……creates and emits radio waves.

A. Transmitter B. Receiver C. Generator D. Accelerator

40. Telegraphs, telephones, radio and TV all work by modifying signals and are known as…..transmission.

A. Digital **B. analog** C. relay D. direct

41. Computers and other types of ……equipment transmit…….information.

A. Electronic/digital **C. Electronic /analog**

B. Electrcical/digital D. Electrcical/analog

Read the passage and choose the best answerthen blacken the letter A, B, C or D on the answer sheet.

Passage 1:

Electronic circuits consist of interconnections of electronic components. Components are classified into two categories—active or passive. Passive elements never supply more energy than they absorb; active elements can supply more energy than they absorb. Passive components include resistors, capacitors, and inductors. Components considered active include batteries, generators, vacuum tubes, and transistors.

Capacitors are passive components which consist of two metal plates that are separated by an insulating material. If a battery is connected to both plates, an electric charge will flow for a short time and accumulate on each plate. If the battery is disconnected, the capacitor retains the charge and the voltage associated with it. Rapidly changing voltages, such as caused by an audio or radio signal, produce larger current flows to and from the plates; the capacitor then functions as a conductor for the changing current. This effect can be used, for example, to separate an audio or radio signal from a direct current in order to connect the output of one amplifier stage to the input of the next amplifier stage.

Transistors are active components made from semiconductors. These are materials, such as silicon or germanium, that are "doped" (have minute amounts of foreign elements added) so that either an abundance or a lack of free electrons exists. In the former case, the semiconductor is called n-type, and in the latter case, p-type. By combining n-type and p-type materials, a diode can be produced. When this

diode is connected to a battery so that the p-type material is positive and the n-type negative, electrons are repelled from the negative battery terminal and pass unimpeded to the p-region, which lacks electrons. With battery reversed, the electrons arriving in the p-material can pass only with difficulty to the n-material, which is already filled with free electrons, and the current is almost zero.

26. What are electronic circuit made of?

A. Resistors and transistors
B. Electronic components
C. Passive components
D. Active components

27. Which components are considered as active components?

A. Inductors and resistors
B. Capacitors and transistors
C. Batteries, generators, vacuum tubes, inductors, and transistors.
D. Batteries, generators, vacuum tubes, and transistors

28. What does a capacitor consist of?

A. Two plastic plates that are separated by an insulating material.
B. Two plastic plates that are connected by an insulating material.
C. Two metal plates that are connected by an insulating material.
D. Two metal plates that are separated by an insulating material.

29. What happens when the battery is disconnected after connecting to both plates of a capacitor?

A. An electric charge will flow for a long time and accumulate on each plate.
B. An electric charge will flow for a short time and accumulate on each plate.
C. The capacitor retains the charge and the voltage associated with it.
D. None is correct

30. According to the passage, what capacitor's effect can be used to separate an audio or radio signal from a direct current?

A. If the battery is disconnected, the capacitor retains the charge and the voltage associated with it
B. The capacitor functions as a conductor for the changing current with rapidly changing voltages
C. Amplification of voltage.
D. Electrons are repelled from the negative battery terminal and pass unimpeded to the p-region

31. What can be inferred about semiconductors?

A. They are made of metal or plastic meterial.
B. They are the combination of n-type and p-type materials,

C. These are materials, such as silicon or germanium, that are "doped" (have minute amounts of foreign elements added) so that only an abundance of free electrons exists

D. These are materials, such as silicon or germanium, that are "doped" so that either an abundance or a lack of free electrons exists.

32. What will happen if a diode is connected to a battery so that the n-type material is positive and the p-type negative.

A. Electrons are repelled from the negative battery terminal and pass unimpeded to the p-region, which lacks electrons

B. The electrons arriving in the p-material can pass only with difficulty to the n-material

C. The diode then functions as a conductor for the changing current.

D. Electrons are repelled from the negative battery terminal and pass unimpeded to the n-region, which lacks electrons

33. What is the best tittle for this passage?

A. Transistor and how it works

B. The difference between transistor and capacitor

C. Quick review of Electronic components

D. Capacitor and how it works

Passage 2:

Wireless telecommunications use radio waves, sent through space from one antenna to another, as the medium for communication. Radio waves are used for receiving AM and FM radio and for receiving television. Cordless telephones and wireless radio telephone services, such as cellular radio telephones and pagers, also use radio waves. Telephone companies use microwaves to send signals over long distances. Microwaves use higher frequencies than the radio waves used for AM, FM, or cellular telephone transmissions, and they can transmit larger amounts of data more efficiently.

Microwaves have characteristics similar to those of visible light waves and transmit pencil-thin beams that can be received using dish-shaped antennas. Such narrow beams can be focused to a particular destination and provide reliable transmissions over short distances on Earth. Even higher and narrower beams provide the high-capacity links to and from satellites. The high frequencies easily penetrate the ionosphere (a layer of Earth's atmosphere that blocks low-frequency waves) and provide a high-quality signal. Cellular radio telephones, also known as cell phones, communicate by sending radio signals to a cell tower. Each cell tower has a certain range within which it can receive the radio signals.

The range of each tower overlaps with that of another tower so as a mobile cell phone user travels, communication is uninterrupted. To communicate with the user of a wired telephone, the cell phone radio signals are routed from the cell tower to a mobile switching center, which in turn routes

the signals to the telephone company. The signals then travel over telephone lines to reach a wired telephone

34. Which sentence is not true about the use of radio waves

A. Radio waves are used for receiving AM and FM radio for receiving television
B. Radio waves, such as microwaves, are used to send signals over long distances
C. Radio waves are used in cellular radio telephone
D. Radio waves are used in transmitting in optic fiber

35. According to the passage what is the advantage of microwaves comparing to radio waves used for AM, FM, or cellular telephone transmissions.

A. They can easily penetrate the ionosphere
B. They can transmit larger amounts of data
C. They do not affect the human health
D. All are correct

36. According to the passage, which sentence is true about the characteristic of high frequency microwaves?

A. It can easily penetrate the ionosphere and provide a high-quality signal
B. It is absorbed by ionosphere.
C. It can be received by a cell tower
D. It can easily penetrate the ionosphere and provide a low-quality signal

37. According to the passage, how do cell phones communicate?

A. By sending and receiving radio signals from one antenna to other ones.
B. By sending and receiving light signal to a cell tower.
C. By sending and receiving radio signals to a cell tower.
D. By sending and receiving light signal from one antenna to other ones

38. What is the other names of cellular radio telephones

A. Wireless network
B. Wired network
C. Cell telephones
D. Cell phones

39. Which sentence is true about the communication between wired telephones and cell phones

A. They can not be communicated to each other
B. They can be uninterrupted when users travel
C. They can be communicated to each other

D. They can be interrupted when users travel

40. How does cell phone communicate with the user of a wired telephone

A. By connecting directly to the wired telephone by using radio waves

B. The cell phone radio signals are routed from the cell tower to a mobile switching and telephone company respectively before travelling over telephone lines to reach a wired telephone

C. The cell phone radio signals are routed from the cell tower to a telephone switching and cellphone company respectively before travelling over telephone lines to reach a wired telephone

D. The cell phone radio signals are routed from the cell tower to a telephone company and mobile switching respectively before travelling over telephone lines to reach a wired telephone.

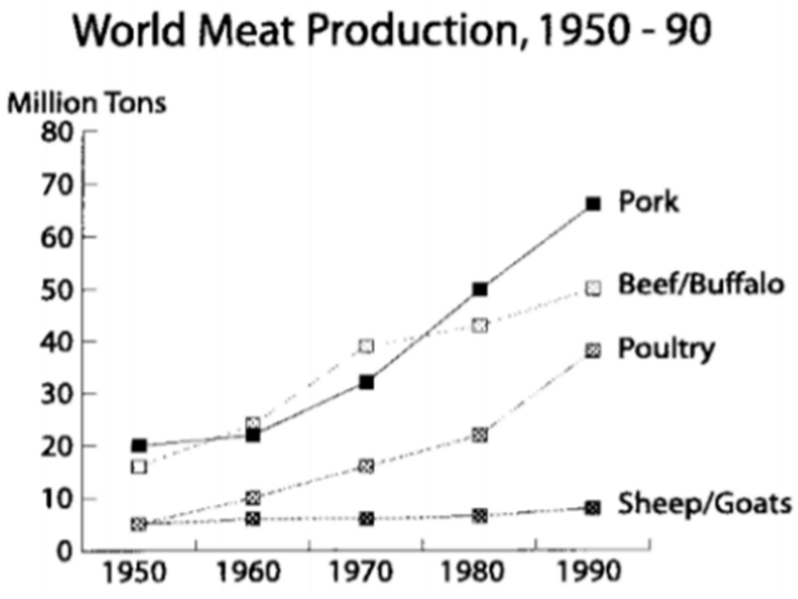
41. Which is the best introductory sentence for a description of this graph from the following?

a) This graph shows the changes in world meat production between 1950 and 1990.

b) From this graph we can see that most meat production is a lot higher in 1990 than in 1950.

c) Between 1950 and 1990 meat production in the world rose significantly for all kinds of meat except sheep and goat meat.

d) The graph shows that in 1950 production of poultry and sheep and goat meat was less than 5 million tons, while production of pork and beef and buffalo meat was around 20 million tons.



42. Based on the diagram, write 2 sentences describing pork production.

→ The pork production from 1950 to 1960 rose slightly. From 1960 to 1990 climb steeply and leader in meat production.

43. Based on the diagram, write 2 sentences describing beef/buffalo production.

→ The beef / buffalo production from 1950 to 1970 climb steeply. From 1970 to 1990 increase slighty.

44. Based on the diagram, write 2 sentences describing poultry production.

→ The poultry production from 1950 to 1980 ease slighty. In the ten year from 1980 to 1990 poultry production climb steeply.

45. Based on the diagram, write 2 sentences describing sheep/goats production.

→ The sheep / goats production from 1950 to 1990 rose slightly.