1) The capacity or ability to do work is called ……..
   a) Energy
   b) Speed
   c) velocity
   d) mass

2) Conventional sources of energy are also called ……
   a) non-renewable
   b) renewable
   c) non conventional
   d) none of these

3) Coal, oil, petrol, diesel, kerosene, natural gas, Uranium, thorium, plutonium and water are the examples of……
   a) Conventional
   b) renewable
   c) non conventional
   d) none of these
4) Approximately …….. % of electrical energy is generated with the help of coal, petroleum product and natural gas in India
   a) 10
   b) 90
   c) 100
   d) 0
5) Solar energy, wind energy, tidal energy, biomass energy, geothermal energy and ocean thermal are the examples of ……. Sources
   a) conventional
   b) renewable
   c) non renewable
   d) none of these
6) ……. are environment-friendly, do not pollute the environment
   a) conventional
   b) renewable
   c) non renewable
   d) none of these
7) Generation of electrical energy is preferred because……
   a) Can be easily transported from one place to another place
   b) Transmission losses are less
   c) Economical
   d) All above
8) Steam power plant is also called as ……..
   a) thermal power station
   b) Nuclear power plant

c) Hydro electric power plant
d) Tidal power plant

9) In SPP, high pressure high temperature steam is generated by burning the fuel in ……..
a) Nozzle
b) Condenser
c) Turbine
d) boiler

10) In SPP High pressure steam is converted in to kinetic energy by using….
a) Nozzle
b) Condenser
c) Turbine
d) boiler

11) In SPP Kinetic energy is coupled with the generator which generates…….
a) Electricity.
b) Potential energy
c) Rotational energy
d) Steam energy

12) To improve the thermal efficiency various heat recovery systems like …… are used in steam power plant.
a) air pre heater, economizer
b) nozzle, turbine
c) condenser, cooling tower
d) hot well, pump

13) ……improves the combustion efficiency of the fuel.
a) **air pre heater**
b) nozzle
c) turbine
d) condenser

14) Outer shell of boiler is coated with thermal resistive material to improve ……..
a) Efficiency
b) To protect the workers from the heat
c) To avoid heat dissipation in the surrounding
d) All above

15) Generator is an electromechanical machine which converts mechanical/ rotational energy into electrical energy using a principal ……
a) Faradays law of electromagnetic induction.
b) Ohms law
c) Law of resistivity
d) See back effect

16) ……is a cooling unit which converts low pressure steam in to water with the help of cooling tower.
   a) Pump
   b) Condenser
   c) Hot well
   d) turbine
17) Due to SPP pollutants like……. are released in atmosphere
   a) CO2,
   b) NOx,
   c) SO2
   d) All above
18) Koradi Nagpur in Maharashtra is the example of ……..
   a) Hydro electric power plant
   b) Gas turbine power plant
   c) Thermal power plant
   d) Tidal power plant

19) Which is not the nuclear fuel……
   a) thorium (Th232) ,
   b) uranium (U235)
   c) plutonium (Pu239)
   d) barium (Ba)
20) Which component is not available inside the nuclear reactor?
   a) Moderator
   b) Control rods
   c) Fuel rods
   d) Condenser
21) In Nuclear power plant which continuous chain reaction is carried out to generate large amount of heat is called…..
   a) Reflection
   b) Absorption
   c) Fission
   d) Refraction
22) In Nuclear Power Plant an external shield on is provided on nuclear reactor ……
   a) for the physical safety of persons operating the nuclear reactor
   b) To prevent from harmful effects of radioactive radiations.
   c) To improve the efficiency of the power plant
   d) All above
23) Tarapur Atomic Power station in Mumbai Maharashtra is the example of…….
   a) Hydro electric power plant
   b) Gas turbine power plant

c) Nuclear Power Station
d) Tidal power plant

24) Which is not the component of Gas turbine power plant?
a) Compressor
b) Dyke
c) Combuster
d) Turbine

25) …….is used in con junction with aviation, power generation, oil and gas industries and marine propulsion so the total efficiency increases.
a) Gas turbine power plant
b) Nuclear power plant
c) Steam power plant
d) Hydro electric power plant

26) In hydro electric power plants the ……of water is utilized to move the hydraulic turbines.
a) potential energy
b) kinetic Energy
c) electric energy
d) light energy

27) In which power plant Capital investment is more compare to other options?
a) Hydro electric power plant
b) Gas turbine power plant
c) Steam power plant
d) Magneto hydro dynamics

28) Koyana Maharashtra is the example of……..
a) Gas turbine power plant
b) Steam power plant
c) Magneto hydro dynamics
d) **Hydro electric power plant**

29) In thermocouple electric generators …… is used as working principle.
a) Faradays law
b) Seeback effect
c) Law of resistivity
d) Ohms law

30) According to Thomson effect, In thermocouple if one of the junction is kept at cold condition and other junction is kept at hot condition then the current flows from ….
a) hot junction to cold junction
b) cold junction to hot junction
c) depends on thermocouple material
d) can't say

31) …… is defined as the energy required to extract one electron from the metal in thermo emissive generators.

a) Work done
b) Work function
c) Work out
d) working

1) Which of the following is the Solar Power generation method
    a) Solar thermal
    b) Solar photovoltaic
    c) None of these
    d) (a) and (b)
2) In Solar photovoltaic power generator each semiconductor cells having voltage……..V
    a) 0.6
    b) 0.1
    c) 1
    d) 6
3) The output of photovoltaic cell is in the …….. form.
    a) AC
    b) DC
    c) Both
    d) Can't say
4) Minimum wind speed required for the working of multi turbine mill is……KMPH
    a) 2
    b) 4
    c) 8
    d) 16
5) In Bio gas Janta Gobar Gas power plant ……. gas is generated as burning gas.
    a) methane
    b) sulfur dioxide
    c) nitrogen dioxide
    d) ammonia
6) The sun releases enormous amount of energy due to continuous …….. reaction taking place in the sun.
    a) **Fusion**
    b) Fission
    c) Combustion
    d) Radiation
7) ……..is the ratio of maximum generated output energy to the maximum supplied input energy.
    a) Maximum energy effectiveness

b) **Maximum energy efficiency**

c) Maxima
d) Minima

8) In OTEC working fluid is used as……
   a) **Propane**
   b) Oxygen
   c) Water
   d) Oil

9) The sun sends out this energy in the form of ……
   a) electromagnetic radiations
   b) potential energy
   c) kinetic energy
   d) none of these

10) The intensity of solar radiations depends upon the……..
   a) Weather condition
   b) Day or night time
   c) Season
   d) All above.

11) In solar thermal power generation, solar energy is converted in to ……. with the help of absorber.
   a) Steam
   b) Water
   c) Electricity
   d) Heat

12) The ……is used in solar thermal power plant to collect and concentrate the solar radiations.
   a) Turbine
   b) reflectors or collectors
   c) generator
   d) cooling tower

13) In Solar photovoltaic power generation solar energy is directly converted into DC electrical energy with the help of……..
   a) Chemical cells
   b) photovoltaic cells
   c) Transistors
   d) Resistors

14) Collector or reflector in solar thermal power plant collects the solar radiation and concentrate it on single point or line with the help ……...

a) **reflection principle**
b) faradays principal
c) seeback effect
d) peltier effect

15) In turbine when a high pressure steam is applied on blades …….is generated in the shaft.

a) Potential energy
b) Nuclear energy
c) kinetic energy
d) heat energy

16) …….are semiconductor devices when exposed in sun light generate voltage.

a) Photovoltaic cells
b) Diodes
c) Transistors
d) Capacitors

17) Single photovoltaic cell is having output voltage about …. volt and current ……..

a) 6 volt ,10 Amp
b) 1.5 volt ,1 amp
c) 1 volt, 1 amp
d) **0.6 volt ,10 mA**

18) Which of the following is not a rechargeable battery?

a) nickel cadmium,
b) lead acid,
c) lithium ion,
d) lithium ion polymer
e) lithium metal hydride
f) Dry cell

19) Inverter is an electronic circuit which converts ……..

a) DC in to DC
b) **DC into Ac**
c) AC into AC
d) AC into DC

20) Solar energy is available during the day time only is the disadvantage of….
a) Tidal power plant
b) MHD
c) Solar power plant
d) Wind power plant

21) The main challenge in the solar system is……..
a) Reducing module cost.
b) Increasing the life time of solar system.
c) Reducing raw material cost.
d) Lowering of capital cost requirement.
e) Optimum solar systems integration
f) All above

22) HAWT and VAWT are the types of…….
a) Tidal power plant
b) MHD
c) Solar power plant
d) Wind power plant

23) Blades of wind turbine are made up from glass fiber reinforced plastic to prevent from …..
a) Corrosion.
b) Friction
c) Rotation
d) Combustion

24) HAWT are designed from capacity…….
a) 15 KW to higher capacity 3MW
b) 15 W to higher capacity 30W
c) 10 MW to higher capacity 300MW
d) None of these

25) The rotational speed of multi blade type wind mills is …….
a) 60 to 80 rpm
b) 700 to 100 rpm
c) 3000 to 5000 rpm
d) Above 10000 rpm

26) Which is the suitable site for wind power plants?
a) Plane land sites
b) Hill top sites
c) Sea shore sites

d) Off shore shallow water sites
e) All above

27) ……..is the organic matter from plants, animals and micro organism grown on land and water and their derivates.

a) **Biomass**
b) Water
c) Nuclear fuel
d) Solar energy

28) Which of the following is not the example of bio mass?

a) Coal,
b) petroleum products
c) natural gases
d) All above

29) Municipal solids, Sewage wood products, Industrial Waste, Manure at large lots, Crop residues, Logging residues, Disposed manure are the sources of……..

a) Biomass
b) Hydro energy
c) Nuclear fuel
d) Solar energy

30) The main sources of production of biogas are ……..

a) cow dung
b) sewage
c) crop residues
d) vegetable waste
e) water hyacinth
f) Alga
g) poultry dropping
h) pig manure
i) ocean kelp
j) all above

31) Biogas, a mixture containing ……of methane

a) 10 to 12%
b) 55 to 60%
c) 100%
d) 90 to 100%

32) Bio gas can be produced from the …….of animal, plant and human waste.

a) Decomposition
b) Combustion
c) Burning
d) Gasification

33) Biogas is clean and slow burning gas usually has a heating valve about ……

a) 18KJ/m^3
b) 180KJ/m^3
c) 1800KJ/m^3
d) 18000KJ/m^3

34) Biogas can use directly in ……..

a) Cooking
b) domestic lighting
c) heating and IC engines
d) All above

35) Biogas plant converts wet biomass into biogas by the process of …….

a) **fermentation**
b) Combustion
c) Burning
d) Gasification

36) The bacteria called Anaerobe carries out digestion of bio mass without oxygen and produces……

a) methane and carbon dioxide
b) oxygen and nitrogen
c) helium and chlorine
d) Sulfur dioxide and argon

37) Digester of bio gas is also called as……

a) Combuster
b) Fermentation tank
c) Absorber
d) Turbine

38) ……is the concept through which we can generate electricity using the temperature difference of surface warm water and cold depth water of ocean.

a) OTEC
b) Tidal
c) Hydro electric
d) Nuclear

39) Generally OTEC systems are located …….
a) In hilly area
b) In residential area
c) In metro Politian area
d) Inside the hull (ship).

40) The working fluid of OTEC whose vaporization point is less than 25°C is ……..
a) Propane
b) Ammonia
c) (a) only
d) **(a) and (b)**

41) Tidal power generation is also called ……
a) **lunar power generation**
b) thermal power generation
c) steam power generation
d) hydro electric power generation

42) Turbo generator is the combination of …….
a) Turbine and condenser
b) turbine and reversible electric generator
c) boiler and reversible electric generator
d) can't say

43) …….. produces electricity by a chemical reaction without any combustion.
a) Fuel cell
b) Solar cell
c) Generator
d) Turbo generator

44) In fuel cells, loss of electrons takes place on anode called as……..
a) Reduction
b) **Oxidation**.
c) Fermentation
d) decomposition

45) In fuel cells gain of electrons takes place on cathode called as…….
a) Reduction
b) Oxidation.
c) Fermentation
d) Decomposition

46) The working principal of MHD is ……
a) **faradays law of electromagnetic induction**.
b) Ohms law
c) Law of resistivity

d) Seeback effect

47) To increase the conductivity of ionized gas in OTEC, material like …..is injected in it.

a) Copper
b) Silver
c) tin
d) potassium carbonate.

1) ……..is the ratio of maximum generated output energy to the maximum supplied input energy.

a) Maximum energy effectiveness
b) Maximum energy efficiency
c) Maxima
d) Minima

2) ……means reduction in energy consumption without making any sacrifice of quantity and quality of production.

a) Energy conservation
b) Energy saving
c) Energy generation
d) Energy distribution

3) Energy conservation can be done by adopting……

a) Minimizing losses in every machine
b) Maintaining best fuel quality.
c) Waste energy recovery
d) All above

4) Energy conservation can be done by adopting……

a) Constructing conjunction plants
b) Minimizing capital investment, labour cost and material cost.
c) Using advanced and microcontroller based control systems.
d) **All above**

5) Energy conservation can be done by adopting……

a) Waste energy recovery
b) Waste material usage
c) Waste energy utilization
d) **All above**

6) Energy conservation can be done by adopting……

a) By conducting awareness program to save energy for consumers
b) Using renewable energy products like solar heater, cooker, dryer, bio mass and bio gas
c) Using power factor correcting devices.
d) **All above**

7) The cost is calculated by considering all cost to generate per unit energy is called as…….

a) Maximum cost effectiveness

b) Billing cost
c) Selling cost
d) Earning cost

8) ……can be calculated by energy audit.
a) Maximum energy efficiency (η)
b) Maximum cost effectiveness
c) (a) only
d) (a) and (b) both

9) Carrying out a continuous systematic procedure for plant energy study or an analysis of energy utilization in the plant is called as …….
a) Energy Audit
b) Energy cost
c) Energy expenditure
d) Energy consumption

10) Which one is the objective of Energy Audit……..
a) To study the present pattern of energy consumption
b) Examination of energy efficiency of major energy consuming systems, processes and equipments
c) Identify the potential areas for energy optimization
d) All above

11) Which one is the objective of Energy Audit……..
a) Indication of process management inefficiencies with negative impact on energy consumption
b) To recommend energy conservation proposals with cost benefit analysis
c) evaluation of energy efficiency of major energy consuming systems, processes and equipments
d) all above

12) Which is the Energy Audit Strategy step……
a) General Consideration
b) Preliminary Study / Audit
c) Detailed Study / Audit
d) All above

13) How much energy we are consuming? Where is the energy consumed? How efficiently the energy consumed? and Can there be improvement in energy use? Answers of these questions are considered in……..
a) Energy audit
b) Financial audit
c) Cultural audit
d) Educational audit

14) Energy audit can be done…….

a) Machine wise
b) Section wise
c) Department wise
d) Plant wise
e) All above

15) Energy Audit can give positive orientation to the ……
a) Energy cost reduction
b) Preventative maintenance
c) Proper utilization.
d) All above

16) What is the duty of Energy Manager of energy management team?
a) Collection / compliation of previous energy usage data & Standards.
b) Preparation of energy efficiency program & estimate budget for implementation.
c) Identification of energy losses & inefficient device & equipment.
d) All Above

17) What is the duty of Energy Manager of energy management team?
a) Initiation/ start of energy conservation program.
b) Preparation of energy audit schedule.
c) Monitoring of energy conservation program
d) All above

18) What is the duty of Energy Manager of energy management team?
a) Evaluation of savings due to energy conservation measures
b) Spreading Energy awareness among plant people
c) **Both above**
d) Can't say

19) Which instrument has in-built chemical cells which measures various Gaseous SO_X, NO_X etc?
a) Ammeter
b) Volt meter
c) Combustion analyzer
d) Power factor meter

20) The meter which calculates the combustion fuel efficiency is called…….
a) Ammeter
b) Volt meter
c) Fuel efficiency monitor
d) Power factor meter

21) For the measurement of temperature …… are used.
a) Thermometer
b) Volt meter
c) Fuel efficiency monitor
d) Power factor meter

22) Tachometers are used for the measurement of……
   a) Pressure
   b) Temperature
   c) Speed
   d) Light intensity.

23) The luminance of light is measured by using…….
   a) manometer
   b) thermo meter
   c) tachometer
   d) lux meter

24) Which one is the technique of energy conservation in Refrigeration system?
   a) Don't overload the capacity of refrigerator.
   b) Always keep cooling coils as clean as possible
   c) Water cold condenser should be used instead of air cold condenser.
   d) All above

25) Which one is the technique of energy conservation in Refrigeration system?
   a) Check door gaskets and auto closures.
   b) Select or go for single refrigerator rather than two smaller one
   c) Servicing or maintenance must be regular
   d) All above

26) Which one is the technique of energy conservation in Refrigeration system?
   a) Keep refrigerator away from sunlight
   b) Apply specified mains supply to refrigerator or use stabilizer.
   c) Choose refrigerator of higher star rating (best quality) while purchasing.
   d) All above

27) Which one is the technique of energy conservation in boiler?
   a) Use good quality of water to avoid rust in the boiler.
   b) Door gaskets are needed to check regularly.
   c) Steam leakage should be avoided
   d) All above

28) Which one is the technique of energy conservation in boiler?
   a) Carry out maintenance of boiler regularly
   b) Outer body of boiler must shield with thermal coating.
   c) Variable speed drivers must be used for large capacity boilers
   d) All above

29) "Use of multiple boilers should be avoided" if this sentence is true or false in relation with conservation of energy
   a) True

b) False

30) Which one is the technique of energy conservation in fans?
a) Use variable speed fans and blowers.
b) Filters must be cleaned regularly.
c) Avoid the barriers or obstacles between blower, fan and furnace.
d) All above

31) Which one is the technique of energy conservation in fans?
a) Keep proper belt tension.
b) Keep blade angle proper for efficient output.
c) Carry out maintenance regularly
d) All above

32) Which one is the technique of energy conservation in ovens?
a) Don't overload the oven.
b) Keep door closed when oven is in operation.
c) maintenance should be done regularly
d) all above

33) Which one is the technique of energy conservation in compressor?
a) Inlet air must be cooled and moisture free.
b) Compressor valves must be proper in size, shape and operation.
c) Use multistage compressor instead of single stage compressor.
d) All above

34) Which one is the technique of energy conservation in compressor?
a) Avoid leakage of air tank pressure valve and pipes,
b) Pneumatic tools must be lubricated properly.
c) Don't use compressed air for floor cleaning or body cleaning
d) All above

35) Which one is the technique of energy conservation in pumps?
a) Apply proper input voltage and current by using stabilizer.
b) Purchase pump of suitable specifications to fulfill the requirement.
c) Don't overload the pump
d) All above

36) Which one is the technique of energy conservation in pumps?
a) Select proper head of the pump.
b) Avoid leakages to improve the efficiency.
c) Use best quality cables and spare parts
d) **All above**

37) Which one is the technique of energy conservation in lighting?
a) Paint the walls with light colors for better reflection.
b) Use proper reflectors for efficient use if light.
c) Keep bulb and tubes glasses clean
d) **All above.**

1) …….is the excessive concentration of foreign matter in the air which adversely affects the well being of the individual or causes damage to property.

a) Air pollution
b) Water pollution
c) Noise pollution
d) Thermal pollution

2) Air pollution cause…….
   a) Diseases
   b) allergies
   c) death to humans
   d) **All above**

3) ….. is a substance which may be solid particles, liquid droplets or gas, and this can be of natural origin or man-made available in the air , that can have adverse effects on humans and the ecosystem..
   a) Air pollutant
   b) Water pollutant
   c) Thermal pollutant
   d) None of these

4) ……..are those emitted directly from identified sources.
   a) Secondary pollutant
   b) Primary pollutants
   c) Indoor pollution
   d) Out door pollution

5) …….are those which are produced in the air by interaction among two or more primary pollutants or by reaction with normal atmospheric constituents with or without photo activation.
   a) Secondary pollutant
   b) Primary pollutants
   c) Indoor pollution
   d) Out door pollution

6) Ozone is the example of…….
   a) Secondary pollutant
   b) Primary pollutants
   c) None of these
   d) Both of these

7) This is the pollutant emitted in the air due to human respiratory system.
   a) CO
   b) CO_2

c) NO_2
d) SO_2

8) SO_2 is produced by …….
a) volcanoes
b) various industrial processes
c) Coal and petroleum
d) All above

9) …….are generated from high temperature combustion, electric discharge during thunderstorm. This is reddish-brown toxic gas.
a) NO_x
b) CO
c) CO_2
d) SO_2

10) ……. is a colorless, odorless, toxic gas. It is a product of combustion of fuel such as natural gas, coal or wood.
a) NO_x
b) CO
c) CO_2
d) SO_2

11) …….. are gases which are released from air conditioners, refrigerators, aerosol sprays, etc. These gases damage the ozone layer.
a) NO_x
b) Chlorofluorocarbons
c) CO_2
d) SO_2

12) Chemicals used in house hold applications such as washing powder, floor cleaning liquids, colors, paints, Tobacco smoke, Indoor animal dropping are the examples of……
a) Indoor air pollution
b) Outdoor air pollution
c) None of these
d) Both of these.

13) Ozone (O3) is the example of……..
a) Indoor air pollution
b) Outdoor air pollution
c) None of these
d) Both of these

14) Which one is not the source of air pollution?
   a) Combustion process
   b) Metrological process
   c) Agriculture activity
   d) Acid rain

15) Which of the following process is not included in nuclear energy program?
   a) fuel fabrication,
   b) ore preparation
   c) bomb explosion
   d) Crop burning

16) Which of the following is not the adverse effect of air pollution on human?
   a) Eye irritation.
   b) Nose and throat irritation.
   c) Deterioration in building stones.
   d) Disturbance in concentration due to odor of gases like hydrogen sulfide, ammonia.

17) Which of the following is the adverse effect of air pollution on human?
   a) Increase in mortality. (death rate)
   b) Increase in morbidity. (rate of Physical Disabilities)
   c) Increase in stress which increases cardiovascular and pulmonary diseases
   d) All Above

18) The dust in the polluted air causes…..
   a) **Respiratory diseases**
   b) Cancer
   c) Cataract
   d) Diseases of the bone and teeth

19) Due to Air pollution which symptom is observed in animals?
   a) Lake of appetite
   b) Rapid loss in weight
   c) Decay in health and vigor
   d) All above

20) Due to Air pollution which symptom is observed in trees and plants?
   a) Acute injury (death of cell)
   b) Dead tissues
   c) Chronic injury
   d) **All above**

21) When the pH value of rain equal to ….or below that value, the rain specially termed as acidic rain.

a) 7.6
b) 6.6
c) **5.6**
d) None of these

22) Generally the acid rain is due to secondary pollutants like….
a) sulfuric acid H_2SO_4
b) nitric acid HNO3
c) (a) only
d) (a) and (b) both

23) Which is the source of water pollution?
a) Chemical industry
b) Fossil fuel based power plants
c) Volcano
d) All above

24) Which is the source of water pollution?
a) Sugar factory
b) Glass factory
c) Burning of gasoline in motor vehicles
d) All above

25) Which is the effect of air pollution on human?
a) Chest pain.
b) shortness of breath
c) cough
d) all above

26) Which is the effect of air pollution on human?
a) damages in human lung
b) reduces immunization level against respiratory diseases
c) Lowers the visibility in human
d) All above

27) Which is the effect of air pollution on trees and plants?
a) Damages the tree by dissolving the calcium in the soil
b) Causes nutrient deficiency
c) Decrease in growth rate
d) All above

28) Which is the effect of air pollution on trees and plants?
a) Weakness in the tree
b) Makes them more sensitive to cold
c) Damages the coating of leaves
d) All above

29) Which is the effect of air pollution on trees and plants?
a) Develops ground spot on them. affects the fertilization,

b) Affects speed development
c) Affects fruit formation of the trees.
d) All above

30) Due to acid rain aluminum, lead, and mercury are released in the soil which are ……to trees
a) **Harmful**
b) Useful
c) Can't say
d) None of these

31) Which is the effect of air pollution on aquatic life?
a) Affects the blood chemistry of aquatic life.
b) Infertility,
c) adverse effect on eggs of fishes
d) growth in the death
e) all above

32) Which one is not the property of Photochemical smog?
a) is brownish in color
b) Is visible in sunny days.
c) Is the reaction between nitrogen oxides and hydro carbon with sun light.
d) All above

33) Photochemical smog causes …….
a) breathing problems
b) cough
c) affects on ozone layer
d) All above

34) Photochemical smog causes …….
a) Irritation in eyes nose and throat.
b) causes heart diseases
c) reduces visibility
d) all above

35) …….is a gradual increase in the earth's temperature generally due to the greenhouse effect caused by increased levels of carbon dioxide, CFCs, and other pollutants
a) **Global warming**
b) Thermal pollution
c) Acid rain
d) Depletion of ozone layer

36) Which is not the man made cause of global warming?
a) Deforestation
b) Volcanoes

c) Excess use of automobile vehicle
d) Chlorofluorocarbon

37) Which is not the natural cause of global warming?
a) Volcanoes
b) Water Vapor
c) Industrial Development
d) Melting Permafrost

38) Which is the effect of Global Warming?
a) Rise in Temperature
b) Threat in eco system
c) Climate change
d) All above

39) Which is the effect of Global Warming?
a) Spread of Diseases
b) Decrease in the Human Population
c) Impact on biodiversity
d) All above

40) Troposphere is the first layer stretching approximately …… kilometers upwards from the earth's surface.
a) **10**
b) 50
c) 100
d) 200

41) The **stratosphere** is the next layer above the troposphere stretching approximately …….. kilometers.
a) 1 to 2
b) **15 to 60**
c) 70 to 100
d) 100 to 150

42) The ozone layer sits in the lower region of the stratosphere from about …..kilometers above the surface of the earth.

a) **20-30**
b) 50 to 60
c) 70 to 100
d) 100 to 150

43) The thickness of the ozone layer is about……, but it pretty much fluctuates depending on the season and geography.
a) 3 to 5 mm
b) 10 to 20 mm

c) 20 to 30 mm
d) 40 to 50 mm

44) To avoid the adverse effects of air pollution which factor must be taken into consideration?
a) Use public transport instead of individual transport
b) Use electric energy as minimum as possible
c) Use pollution free power plant
d) All above

45) To avoid the adverse effects of air pollution which factor must be taken into consideration?
a) Conduct awareness programs for society to reduce air pollution
b) Use good quality machines in industries
c) Use unleaded petrol.
d) All above

46) To avoid the adverse effects of air pollution which factor must be taken into consideration?
a) Reuse, recycle the items to avoid air pollution
b) Use energy efficient devices
c) Make law and rules and regulations to follow the prevention of air pollution.
d) All above

47) Which one is the measurement method of air quality?
a) Passive sampling
b) Active sampling
c) Continuous analyzers
d) Remote sensing analyzers
e) **All above**

48) Which one is the measurement method is costly, requires high capital investment and gives quick results of air quality?
a) Passive sampling
b) Active sampling
c) Continuous analyzers
d) **Remote sensing analyzers**

49) Gaseous pollutants are controlled by …… methods
a) Absorption by liquid
b) Absorption by solids
c) Combustion
d) All above

50) Particulate pollutants are controlled by …… method
a) Gravitational settling chamber

b) Cyclone separators
c) Fabric filters
d) All above

51) Which is not the method of controlling Particulate pollutants?
a) Combustion
b) Fabric filters
c) Electrostatic Precipitors
d) Wet collector or Scrubbers

52) The function of Central Pollution Control Board (CPCB) is ….
a) To plan and cause to be executed a nation-wide programme for the prevention, control and abatement of air pollution.
b) To provide technical assistance and guidance to the State Pollution Control board
c) To carry out and sponsor investigations and research related to prevention, control and abatement of air pollution.
d) All above

1) …….takes place, when harmful substances like chemicals /microorganisms mixed in river, lake, ocean, or sources of water, due to which water quality degrades.
   a) Water pollution
   b) Noise pollution
   c) Thermal pollution
   d) Soil pollution
2) Water pollution cause…….
   a) Diseases
   b) allergies
   c) death to humans
   d) **All above**
3) Which is the source of water pollution?
   a) Boiler waste
   b) Sewage
   c) Slurry
   d) All above
4) What are the causes of water pollution?
   a) Sewage and waste water
   b) Dumping
   c) Industrial waste
   d) All above
5) Which one is not the testing method of water pollution?
   a) Dissolved Oxygen (DO)
   b) combustion
   c) Biochemical oxygen demand (BOD)
   d) chemical oxygen demand (COD)
6) ……..refers to the level of free, non-compound oxygen present in water.
   a) Dissolved Oxygen (DO)
   b) Combustion
   c) Biochemical oxygen demand (BOD)
   d) chemical oxygen demand (COD)
7) The minimum level of DO needed in healthy river should be …… mg/L
   a) 4000
   b) 400
   c) 40

d) 4

8) Oxygen needed for biological decomposition of organic matter present in water is called ……
   a) DO
   b) BOD
   c) COD
   d) EOD

9) Oxygen needed for chemical decomposition of organic matter present in the water using oxidizing agent like $K_2Cr_2O_7$ or $KMnO_4$ is called ……..
   a) DO
   b) BOD
   c) COD
   d) EOD

10) The diseases like cholera, diarrhea, dysentery, tuberculosis, jaundice causes due to……
   a) Water pollution
   b) Noise pollution
   c) Thermal pollution
   d) Soil pollution

11) Higher level of fluorides in water can cause weakening of human …..
   a) skin cancer
   b) Vascular diseases.
   c) Bones and teeth.
   d) Central nervous system.

12) Higher level of arsenic in water can cause …….in human.
   a) skin cancer
   b) Hepatitis.
   c) Bones and teeth.
   d) central nervous system

13) Due to eating of contaminated sea food humans are affected by…….
   a) skin cancer
   b) **Hepatitis.**
   c) Bones and teeth.
   d) central nervous system

14) Higher level of lead in water can affect …….in human.
   a) skin cancer
   b) Hepatitis.
   c) Bones and teeth.
   d) central nervous system

15) Reproduction rate of aquatic animals get reduced due to……..
a) Water pollution
b) Air pollution
c) Thermal pollution
d) All above

16) Which one of the following is affected due to water pollution?
a) destroys beaches and sea shore ecosystem, which affects tourism.
b) Toxic rain fall occurs in water polluted area.
c) hampers the agricultural productivity and soil fertility
d) **All above**

17) Which one is not the method to control water pollution?
a) Renewable energy sources should be used to run large companies.
b) deforestation
c) Toxic cleaning chemicals, sprays should be replaced by eco friendly chemicals.
d) Do not throw waste in water bodies

18) ……is the process of excessive and larger nutrient enrichment of water that results in increased production of macrophyte, algae depletion of fish species and deterioration of water quality etc.
a) Deforestation
b) Eutrophication
c) Plantation
d) Forest blaze

19) Which of the following control methods used in Eutrophication?
a) Apply powerful herbicides and algaecides
b) Reduce concentration of nitrogen and phosphorus.
c) Rationalize the agriculture techniques through proper planning of fertilization and use of slow release fertilizers.
d) All above

20) The unwanted sound which disturbs the human and animal is called as …..
a) Speaker
b) Mic
c) amplifier
d) noise

21) Unit of noise measurement is……..
a) Ampere
b) Volt
c) Decibel
d) Watt

22) The normal level of sound under which the person works effectively is ……
   a) 1 to 10 db
   b) 60 to 85 db.
   c) 100 to 150 db
   d) 150 to 200 db

23) In power plants, industries, workshops the machine produces noise upto …..
   a) 1 to 10 db
   b) 60 to 85 db.
   c) 130 to 140 db
   d) 150 to 200 db

24) Due to which power plant noise pollution dose not takes place?
   a) Steam power plant
   b) Nuclear power plant
   c) Gas turbine power plant
   d) Solar photovoltaic power plant

25) Which one is not the source of noise pollution?
   a) Bulldozers used for demolition of old sites
   b) Machines used for polishing marbles and tiles,
   c) Use of loud speaker in temples, mosques, churches, gurudwara
   d) **Eutrophication**

26) Which is not the effect of noise pollution in human?
   a) Disappointment
   b) Depression
   c) jaundice
   d) Difficulty in concentration

27) Which is the effect of noise pollution in human?
   a) Tiredness
   b) Irritation
   c) Larger noise causes hearing loss
   d) **All above**

28) Which is the effect of noise pollution in animal?
   a) Hormone imbalance

b) Chronic stress
c) Panic and escape behavior
d) All above

29) Which control strategy is used for Noise Pollution?
a) Plantation of trees must be around sound generating sources.
b) Maintenance of vehicle should be done regularly to reduce noise pollution.
c) While constructing building noise absorbing materials are used for the walls, windows and ceiling.
d) All above

30) Which control strategy is not used for Noise Pollution?
a) Lubrication of machinery should be done for minimum noise generation.
b) Sound proof windows and doors are needed to be placed to block unwanted noise.
c) **Restrict the use of fertilizers and pesticides**.
d) Regulations must be placed on users for playing loud speaker in public places.

31) ……..is the useless or unwanted solid material generated from residential, industrial and commercial or combination of these activities.
a) Solid waste
b) Biomedical waste
c) Thermal waste
d) Sewage

32) Which of the following is solid waste?
a) food waste, glass waste
b) vegetables waste, paper and card board waste
c) Plastic and textile waste
d) All above

33) Which of the following is not solid waste?
a) food waste, glass waste
b) vegetables waste, paper and card board waste
c) Plastic and textile waste
d) Polluted water

34) Which one is the method of disposal of solid waste?
a) Open Dumps
b) Sanitary landfills
c) Incineration Plant
d) All above

35) Which one is not the method of disposal of solid waste?
a) Absorption by liquids
b) Dumping in to sea:
c) Salvaging:
d) Composting

36) The waste generated during the diagnosis, treatment or immunization of human beings or animals or in research activity or in production or testing of bio logical is called as……

a) Solid waste
b) Biomedical waste
c) Thermal waste
d) Sewage

37) Which is not the human anatomical waste in hospitals?

a) Tissues
b) Organs
c) body parts
d) needle

38) Which is the Waste sharp in hospitals?

a) Needles
b) Syringes and glass lancets
c) Blades and scalpels,
d) All above

39) Which is the soiled waste in hospital?

a) Bloods and body fluids
b) cotton dressing and bedding
c) plaster cast and linen
d) all above

40) Which is the source of biomedical waste?

a) Nursing homes and Clinics
b) Hospitals and Medical laboratories
c) Blood banks and Medical research and training centers
d) All above

41) Which is not the source of biomedical waste?

a) Mortuaries and Funeral services
b) Building and construction
c) Blood donation camp
d) Vaccination centre

42) Which one is the Disposal technique of bio medical waste?

a) Incineration
b) Deep burial
c) Local autoclaving
d) All above

43) Which one is the Disposal technique of bio medical waste?

a) Microwaving
b) Disinfection by chemical treatment
c) Disposal in municipal landfills
d) All above

44) Which one is the advantage of bio medical waste management?
a) Cleaner and healthier surrounding
b) Reduction in infection
c) Reduction in cost of infection control
d) All above

45) Which one is the advantage of bio medical waste management?
a) Reduction in spreading diseases
b) Reduction in the cost of medical expenses
c) Increases quality of life
d) All above

46) …….is described as the degradation in water quality by any process that varies the ambient temperature of water.
a) Soil pollution
b) Water pollution
c) **Thermal pollution**
d) Noise pollution

47) Which one is the cause of thermal pollution?
a) Sun radiation in day time.
b) Discharge of cooling systems of thermal power plant, nuclear power plant.
c) Discharge and dumping of Waste water and sludge of industries and manufacturing plants in water bodies.
d) All above

48) Which one is the effect of thermal pollution?
a) Change in water temperature decreases the dissolved oxygen resulting into damage of aquatic life.
b) Continuous high temperature discharge from industries increases the toxic which impact on local ecology.
c) Increase in blue algae population. As compared to green algae.
d) All above

49) Which one is the effect of thermal pollution?
a) Development of disorder in reproduction system of aquatic life.
b) Change in water temperature reduces immunization level results infection in animals.
c) Damage in digestion system of marine animals.
d) All above

50) Which one is the reduction method of thermal pollution?
a) Good water treatment plant.
b) Flue gas desulfurization.
c) Use of proper feed water boiler system.
d) All above

51) ……is the contamination of soil due to human activity and natural activity which can cause harmful effects on living being.

a) **Soil pollution**
b) Noise pollution
c) Water pollution
d) Air pollution

52) Which one is not the source of soil pollution?
a) Garbage material like plastic, paper and glass
b) Excess use of fertilizers, pesticides and herbicides
c) Radioactive waste from laboratories and industries
d) **loud speakers used in election campaigning**

53) Which is the effect of soil pollution?
a) It reduces the soil productivity i.e. it become unfit for irrigation.
b) It causes soil erosion.
c) It causes deforestation.
d) All above

54) Which is not the effect of soil pollution?
a) It lowers down the pH level of soil.
b) It affects the plant growth and human life.
c) It spreads the bacterial infection
d) **Heartbeat disorder in human being**

55) Which one is the effect of radioactive radiation on human?
a) Development of cancer in skin, bones and blood.
b) Mouth ulcer and Change in genetic structure
c) Development of cataract in eyes or permanent blindness.
d) All above