

FBQ1: A negative charge -----negative charge  
Answer: \*repels\*

FBQ2: Electric charge between two bodies can be produced by  
-----  
Answer: \*rubbing\*

FBQ3: The principle that electric forces add vectorially is known as the  
principle of -----  
Answer: \*superposition\*

FBQ4: The force that is responsible for holding electrons to nuclei to form  
atoms is called the ----- force  
Answer: \*Electrostatic\*

FBQ5: The magnitude of the forces between charged spheres was first investigated  
by Charles -----  
Answer: \*Coulomb\*

FBQ6: A region where an electric charge experiences a force is  
-----field  
Answer: \*electric\*

FBQ7: The work done in taking a unit positive charge from one point to another  
in electric field is ----- of the path chosen between the  
two points.  
Answer: \*Independent\*

FBQ8: The potential difference between two points B and A is equal to the  
----- in taking a unit positive charge from A to B.  
Answer: \*Work done\*

FBQ9: Whose law is employed in electrostatics ?  
Answer: \*Coulomb\*

FBQ10: The energy stored in a system of charges is known as electrostatic  
potential -----  
Answer: \*energy\*

FBQ11: Find the force on a charge  $2C$  in a field  
 $1\text{Vm}^{-1}$ -----  
Answer: \*2N\*

FBQ12: Electric field is measured in Newton per -----.  
Answer: \*Coulomb\*

FBQ13: The charges on capacitors connected in parallel are in the ratio of their  
-----  
Answer: \*Capacitance\*

FBQ14: For capacitors in parallel, the potential difference across each  
capacitor is -----  
Answer: \*the same\*

FBQ15: For capacitors connected in series each has the same \_\_\_\_\_.  
Answer: \*Charge\*

FBQ16: The magnitude and direction of the earth's field varies with position  
over the ----- surface.  
Answer: \*Earth\*

FBQ17: Field lines are drawn such that the lines per unit cross-section area is  
proportional to -----field.

Answer: \*Electric\*

FBQ18: The ----- is the SI Unit of electric charge

Answer: \*Coulomb\*

FBQ19: When a charge density depends only on the perpendicular distance from a plane, the charge distribution is said to have----- symmetry.

Answer: \*plane\*

FBQ20: Electric flux density is a function of -----

Answer: \*charge\*

FBQ21: 1eV is the energy acquired by an electron in falling freely through ----- 1volt.

Answer: \*Potential difference\*

FBQ22: As charge increases, electric flux density -----

Answer: \*increases\*

FBQ23: The minimum energy required to liberate an electron from a metal surface is called -----.

Answer: \*Excitation\*

FBQ24: A body that absorbs all radiations falling on it is known as -----.

Answer: \*Blackbody\*

FBQ25: The ----- number is the total number of neutrons and protons.

Answer: \*Mass\*

FBQ26: The direction of the electric field is opposite to that of the force if the charge is -----

Answer: \*Negative\*

FBQ27: The force between electric charges is known as -----

Answer: \*Electric Force\*

FBQ28: The electric flux is a ----- quantity.

Answer: \*Scalar\*

FBQ29: Gauss's law applies to any hypothetical closed surface called ----- surface.

Answer: \*Gaussian\*

FBQ30: The force applied to a conductor is 10N if the charge in the conductor is 5C, what is the electric field intensity?

Answer: \*2V/m\*

FBQ31: When an atom is in the ground state it is said to be -----

Answer: \*Stable\*

FBQ32: When beta decay occurs ----- changes into a proton and electron.

Answer: \*Neutron\*

FBQ33: An alpha particle is a ----- nucleus consisting of 2 protons and 2 neutrons.

Answer: \*Helium\*

FBQ34: When a dielectric material is inserted between the plates of a capacitor

it increases its -----

Answer: \*Capacitance\*

FBQ35: Potential difference is the work done in moving a unit charge \_\_\_\_ from one point to another in an electric field.

Answer: \*Positive\*

FBQ36: The surface integral of the electric field  $E$  over a surface is defined to be electric -----

Answer: \*flux\*

FBQ37: Gaussian surface is an imaginary closed -----

Answer: \*surface\*

FBQ38: The magnetic North is found by suspending a bar magnet freely on the ----- axis.

Answer: \*Vertical\*

FBQ39: At the \_\_\_\_\_ a dipping compass needle is horizontal and at the magnetic poles it is vertical.

Answer: \*magnetic equator\*

FBQ40: The variation of the compass from the north-south direction is called the -----

Answer: \*Declination\*

FBQ41: <p style="text-align:left">Six equal point charges  $Q = 10\text{nC}$  are located at 2,3, 4,5,6,7m. Find the potential at origin.

Answer: \*143.35\*

FBQ42: According to Faraday's law, the magnitude of the induced e.m.f is proportional to the rate of change of ----- linking the circuit.

Answer: \*magnetic flux\*

FBQ43: Property of magnetic material in which ----- attracts or repels.

Answer: \*charge\*

FBQ44: In the cathode ray oscilloscope, when fast moving electrons strike the glass screen coated with zinc and sulphide they cause -----.

Answer: \*Fluorescence\*

FBQ45: In the method of charging by friction, The algebraic sum of the individual charges that is the net charge is -----.

Answer: \*Constant\*

FBQ46: The resistivity of a semiconductor decreases rapidly with increasing -----.

Answer: \*Temperature\*

FBQ47: According to ohm's law the potential difference is proportional to the -----

Answer: \*Current\*

FBQ48: The study of static charges is called -----

Answer: \*Electrostatics\*

FBQ49: A charge distribution in which the charge density at any point depends only on the distance of the point from a central point and not on the direction is said to be spherically -----

Answer: \*symmetric\*

FBQ50: Neutral objects constitute of equal -----  
Answer: \*charge\*

Multiple Choice Questions (MCQs):

MCQ1: What is the potential difference in an open circuit called?  
Answer: Zero

MCQ2: The potential taken between two points across a resistor will be \_\_\_\_.  
Answer: Positive

MCQ3: The Gaussian surface for a line charge will be \_\_\_\_.  
Answer: Sphere

MCQ4: The Gaussian surface for a point charge is  
Answer: Cube

MCQ5: Gauss law cannot be used to find which of the following quantity?  
Answer: Electric field intensity

MCQ6: The quantity of charge flowing per second through a conductor of 1A is known as \_\_\_\_\_.  
Answer: Total Amperes

MCQ7: The \_\_\_\_\_ meridian is the vertical plane in a direction of geographic north and south.  
Answer: geographic

MCQ8: The \_\_\_\_\_ meridian is the vertical plane in which a magnet set itself at a particular place.  
Answer: Magnetic

MCQ9: The angle of \_\_\_\_\_ is the angle between the magnetic and geographic meridians.  
Answer: Vertical

MCQ10: The \_\_\_\_\_ of a substance is the number of times the average mass of one of the molecules is greater than the atomic mass unit.  
Answer: Atomic weight

MCQ11: Which of these pairs are the clearing fluids required for the determination of surface tension of water by rise in a capillary tube?  
Answer: sodium oxide and nitric acid

MCQ12: Electric charge enclosed by Gaussian surface is  
Answer: 0

MCQ13: The variation of the compass from the north-south direction is called the \_\_\_\_\_.  
Answer: Declination

MCQ14: The \_\_\_\_\_ variation is a low unpredictable change in the local values of the magnetic elements.  
Answer: Lower magnetic

MCQ15: According to Faraday's law, the magnitude of the induced e.m.f is proportional to the rate of change of \_\_\_\_\_ linking the circuit.  
Answer: magnetic flux

MCQ16: A transformer is a device which changes an alternating \_\_\_\_\_ From one value to another using the principle of mutual induction.  
Answer: potential difference

MCQ17: The ratio of the e.m.f induced in the secondary and primary coils is equal to the transformer \_\_\_\_\_.  
Answer: ratio

Answer: Current ratio

MCQ18: The lines of force are said to be \_\_\_\_

Answer: real

MCQ19: Electric field originates at \_\_\_\_

Answer: Positive charge

MCQ20: <table cellpadding="0" style="padding:1pt; border:none black 0px; width:466pt;border-collapse:collapse;margin-left:;><tbody><tr class="r0" style="vertical-align: text-top"><td>

Answer: Electric field

MCQ21: Charging a body by rubbing is achieved through \_\_\_\_.

Answer: Friction

MCQ22: Which one among the following is the field where electric charge experiences a force?

Answer: Electric field

MCQ23: The properties of a charge include which of the following?

Answer: Potential

MCQ24: Coulomb's law applies to \_\_\_\_.

Answer: Long charges

MCQ25: The \_\_\_\_\_ is the amount of energy equal to the change in energy of one electronic charge when it moves through a potential difference of one volt.

Answer: electron-volt

MCQ26: A voltameter is a cell designed for the study of \_\_\_\_\_.

Answer: Electrolysis

MCQ27: The \_\_\_\_\_ is the use of electrolysis to coat one metal with another.

Answer: Electroplating

MCQ28: A \_\_\_\_\_ is a system in which two electrodes are in contact with an electrolytic.

Answer: Focus

MCQ29: One of the main disadvantages of the Leclanche cell is that \_\_\_\_\_.

Answer: the zinc case takes part in the reaction

MCQ30: The force between two particles is inversely proportional to the square of distance between them and proportional to the product between the two is the statement of \_\_\_\_.

Answer: Einstein

MCQ31: Total electric flux through any closed surface is equal to the charge enclosed by that surface" This is the statement for?

Answer: Gauss law

MCQ32: As area increases, what happens to electric flux density?

Answer: increases

MCQ33: Strength of the electric field is \_\_\_\_

Answer: Directly proportional to the force applied

MCQ34: Gauss law cannot be used to find which of the following quantity?

Answer: Electric field intensity

MCQ35: Gauss law can be evaluated in which coordinate system?

Answer: Cartesian

MCQ36: Charging by \_\_\_\_\_ is the process of charging two bodies by means of rubbing them together.

Answer: Electric

MCQ37: The \_\_\_\_\_ is the SI Unit of electric charge.

Answer: coulomb

MCQ38: The unit of permittivity is \_\_\_\_\_.

Answer: farad per metre

MCQ39: Coulomb's law applies to \_\_\_\_\_.

Answer: point masses

MCQ40: Electric field lines are represented by \_\_\_\_\_.

Answer: lines of force

MCQ41: Choose the correct option.

Answer:  $F=E/q$

MCQ42: The relation between an electric charge and electric field is express by \_\_\_\_\_.

Answer: Ohm's law

MCQ43: The \_\_\_\_\_ is most essential for the production of electrons by thermionic emission.

Answer: Cool anode

MCQ44: The process by which an electron is emitted from a hot filament is called \_\_\_\_\_.

Answer: Cathodic emission

MCQ45: The number of the lines of force crossing any surface depends on the orientations of the surface relative to the electric field, the field strength and \_\_\_\_\_.

Answer: Permittivity

MCQ46: With Gauss law as reference which of the following law can be derived?

Answer: Ampere law

MCQ47: Which, among the following, will be unity in free space

Answer: volume

MCQ48: Choose the incorrect option. The unit of \_\_\_\_\_.

Answer:  $E=N/C$

MCQ49: Which is correct?

Answer: Lines of force shows the direction in which negative charge would accelerate

MCQ50: The arrow in a line of force indicates \_\_\_\_\_.

Answer: scalar