Question FBQ1 : The reorientation of a polar material is not perfect due to\_\_\_\_ agitation.
Answer: Therma

Question FBQ2 : Magnetic susceptibility is negative for\_\_\_\_ substances
Answer: Diamagnetic

Question FBQ3 : In a dielectric material, the extent of the charge separation depends on the magnitude of the \_\_\_\_ field.
Answer: local

Question FBQ4 : The maximum safe voltage is for a capacitor is called the \_\_\_\_\_ voltage.
Answer: working

Question FBQ5 : The presence of dielectric led to the modification of \_\_\_\_ law.
Answer: Gauss

Question FBQ6 : \_\_\_\_\_\_\_\_ is the property of an electron that makes it behave as if it were rotating around an axis of its own
Answer: Spin

Question FBQ7 : Diamagnetism involves a change in the \_\_\_\_\_\_ of the magnetic moment of an atom.
Answer: Magnitude

Question FBQ8 : Two capacitors connected in parallel have \_\_\_ potential difference
Answer: Equal

Question FBQ9 : Paramagnetism is exhibited by those atoms or molecules in which the \_\_\_\_\_\_\_\_ magnetic moment is not cancelled.
Answer: Spin

Question FBQ10 : \_\_\_\_\_\_\_\_ is the magnetic dipole moment per unit volume.
Answer: Magnetisation

Question FBQ11 : \_\_\_\_\_\_\_\_ is the state of magnetic polarization of a material.
Answer: Magnetisation

Question FBQ12 : The ratio of the magnetic moment and the angular momentum is calledGyro-magnetic \_\_\_\_.
Answer: ratio

Question FBQ13 : The magnetic susceptibility χm for a diamagnetic material is \_\_\_\_\_?
Answer: Negative

Question FBQ14 : The magnetic susceptibility χm for a paramagnetic material is \_\_\_\_\_?
Answer: Positive

Question FBQ15 : Free currents in a \_\_\_\_\_\_ material are caused by external current sources.
Answer: Magnetized

Question FBQ16 : Magnetic susceptibility is negative for \_\_\_\_\_ substances.
Answer: Diamagnetic

Question FBQ17 : The relative permeability *Km* for a ferromagnetic material is \_\_\_\_\_ than unity.
Answer: Greater

Question FBQ18 : The relative permeability *Km* for a diamagnetic material is \_\_\_\_\_ than unity.
Answer: Less

Question FBQ19 : An atom which loses an electron becomes \_\_\_\_\_\_\_\_?
Answer: A cation

Question FBQ20 : An atom which gains an electron becomes \_\_\_\_\_\_\_?
Answer: An anion

Question FBQ21 : Conducting materials contain\_\_\_\_ which are free to move about.
Answer: Electrons

Question FBQ22 : Molecules that acquire a dipole moment only in the presence of an electric field are \_\_\_\_\_\_\_.
Answer: Non- polar

Question FBQ23 : Molecules whose centre of positive charges coincides with the centre of negative charges are \_\_\_\_\_\_?
Answer: Polar

Question FBQ24 : Molecules that possess a permanent dipole moment irrespective of the presence of an electric field are \_\_\_\_\_\_\_\_\_\_?
Answer: Polar

Question FBQ25 : Ferromagnetic materials are used in the cores of transformers have very\_\_\_\_\_ hysteresis loop.
Answer: narrow

Question FBQ26 :

Two plates of a parallel plate capacitor are 8.85 mm apart and 2.00 m2 in area. Compute the capacitance of the parallel plate capacitor. (Take ɛo = 8.85 x 10-12 F/m).
Answer: 2 x 10-9 F

Question FBQ27 :

What is the charge on a parallel plate capacitor with capacitance of 3.54 µF when a potential difference of 10,000 V is applied across it?
Answer: 0.0354 C

Question FBQ28 : \_\_\_\_\_\_\_\_\_\_\_ is the SI unit of capacitance?
Answer: Farad

Question FBQ29 : Magnetic fields are due to\_\_\_\_ charges in motion.
Answer: Electric

Question FBQ30 : A non-polar molecule acquires a \_\_\_\_ moment only in the presence of an electric field.
Answer: Dipole

Question FBQ31 : What happens to the capacitance of a parallel plate capacitor if we increase the distance of separation between the parallel plates of a capacitor by two?
Answer: The capacitance reduces by a factor of 2

Question FBQ32 : The introduction of a dielectric material between the plates of a parallel plate capacitor \_\_\_\_\_\_\_\_\_ the capacitance?
Answer: increases

Question FBQ33 : Materials which respond very strongly to the presence of magnetic fields are called\_\_\_ materials
Answer: Ferromagnetic

Question FBQ34 : In \_\_\_ molecules the centres of positive and negative charges are located at different points.
Answer: polar

Question FBQ35 : The value of the magnetic flux B when the magnetic intensity H is zero is called \_\_\_\_
Answer: Remanence

Question MCQ1 : The capacitance of a parallel plate capacitor depends on\_\_\_\_.
Answer: All the options

Question MCQ2 : The magnetic dipole moment per unit volume is called\_\_\_\_\_.
Answer: Magnetisation

Question MCQ3 : In a dielectric material, the extent of the charge separation depends on the magnitude of the \_\_\_.
Answer: Local field

Question MCQ4 : The presence of dielectric led to the modification of \_\_\_\_\_law.
Answer: Gauss'

Question MCQ5 : Two capacitors connected in parallel have\_\_\_\_\_.
Answer: Equal potential difference

Question MCQ6 : Inside a dielectric, the average electric field is \_\_\_\_\_than the electric field causing polarisation.
Answer: Less

Question MCQ7 : The magnitude of the force *F* between two charges *q1* and *q2* kept at a distance *r*in a dielectric medium of permittivity *ɛ* is given by:
Answer: **|F| = q1q2/4πɛr2**

Question MCQ8 : A parallel plate capacitor has a capacitance of 1.0 F and the plates are 1.0 mm apart. What is the area of the plates? (Take ɛo = 8.85 x 10-12 F/m)
Answer: 1.13 x 108 m2

Question MCQ9 : Two plates of a parallel plate capacitor are 8.85 mm apart and 2.00 m2 in area. Compute the capacitance of the parallel plate capacitor. (Take ɛo = 8.85 x 10-12 F/m).
Answer: 2 x 10-9 F

Question MCQ10 : Materials which respond very strongly to the presence of magnetic fields are called\_\_\_.
Answer: Ferromagnetic

Question MCQ11 : The line integral of E around any closed path equals the rate of change of the magnetic flux φ through the surface enclosed by the path is --------------------law
Answer: Faraday's

Question MCQ12 : What is the effective capacitance of a parallel arrangement of 4 µF and 4 µF capacitors?
Answer: 2 µF

Question MCQ13 : Two point charges *q1*=10nC and *q2*= -60nC are separated by a distance *r*= 6cm. What is the magnitude of the electric force that *q1*exerts on *q2*?
Answer: 1.5 x 10-5N

Question MCQ14 : Conducting materials contain \_\_\_\_\_ which are free to move about.
Answer: Electrons

Question MCQ15 : The dipole moment per unit volume is called\_\_\_\_\_.
Answer: Polarisation

Question MCQ16 : The energy stored in a capacitor of capacitance 10 μF is 5 J. What is the voltage applied across its terminals.
Answer: 1,000 V

Question MCQ17 :

What is the dipole moment of a dipole comprising two charges q1 = +8.0nC and q2 = -8.0nC with 100 mm separation?
Answer: 8.0 x 10-10 Cm

Question MCQ18 : How much charge is in a 1F capacitor which has a potential difference of 110V?
Answer: 110 C

Question MCQ19 :

Three capacitors of equal capacitance C are connected in series. What is the effective capacitance of the circuit?
Answer: C/3

Question MCQ20 : Magnetic field intensity H is measured in \_\_\_\_\_.
Answer: Amperes per metre

Question MCQ21 :

If an atom loses an electron, it becomes which of the following?
Answer: A cation

Question MCQ22 :

If an atom gains an electron, it becomes which of the following?
Answer: An anion

Question MCQ23 :

The plates of a parallel plate capacitor are separated by a distance. If a dielectric slab is inserted between the plates, the energy stored is \_\_\_\_\_\_?
Answer: Decreased

Question MCQ24 : The unit for the energy stored per unit volume in a dielectric medium is \_\_\_\_\_\_\_\_?
Answer: J/m3

Question MCQ25 : Which type of capacitor is used in low loss precision circuit where miniaturisation is important?
Answer: Ceramic

Question MCQ26 : Which of these is true of paramagnetic materials?
Answer: They get displaced in the direction of increasing field.

Question MCQ27 : Which of these is true of diamagnetic materials?
Answer: They get attracted in the direction of the decreasing field.

Question MCQ28 : The ratio of the magnetic moment and the angular momentum is called \_\_\_\_\_\_?
Answer: Gyro-magnetic ratio

Question MCQ29 : Diamagnetism involves a change in the \_\_\_\_\_\_ of the magnetic moment of an atom.
Answer: Magnitude

Question MCQ30 : In paramagnetic and diamagnetic materials the magnetisation is maintained by the\_\_\_\_\_.
Answer: Field

Question MCQ31 : The maximum safe voltage for a capacitor is called the\_\_\_\_\_voltage.
Answer: Working

Question MCQ32 : Calculate the energy stored in the magnetic field of a 3H inductor which carries a current of 2A.
Answer: 6J

Question MCQ33 : The work done per unit charge is called its \_\_\_\_\_.
Answer: Potential

Question MCQ34 : Magnetic fields are due to\_\_\_\_ charges in motion.
Answer: Electric

Question MCQ35 : Free currents in a magnetized material are caused by\_\_\_\_\_\_\_\_
Answer: External current sources