Physics FSC Part 2 Chapter 12 Online MCQ's Test

Sr	Questions	Answers Choice
1	When the medium is insulator the elecrostatic force between the charges is	A. Decreased B. Zero C. Increased D. None of above
2	Metals are good conductors of electricity because they have	A. Large number of bounded electrons B. Small number of electrons C. Large number of free electrons D. Small number of free electrons
3	The number of electrons in one coulomb charge is equal to	A. 6.2 x 10¹⁸ electrons B. Zero electrons C. 1.6 x 10⁻²² electrons D. 6.2 x 10²¹ electrons
4	The photo copying process is called	A. Xerography B. Inkjet Printer C. Both (a) and (b) D. None of these
5	Electric flux is a	A. Vector quantity B. Scalar quantity C. Both (a) and (b) D. None of above
6	The electric intensity at infinite distance from the point charge is	A. Infinite B. Zero C. Positive D. Negative
7	The electric intensity due to two oppositely charged plates is	D. None of these
8	The relative permitivity of air is	A. 79.5 B. 1.006 C. 1.06 D. 1.0006
9	Which one of the following is correct	A. D. All of above
10	If a charge body moved against the electric field it will again	A. Potential energy B. K.E C. Mechanical Energy D. Electric potential energy
11	An electric field cannot deflect	A. X-rays B. a-particles C. ß-particles D. None of these
12	A force of 0.01 N is exerted on a charge 1.2 x 10^{-5} C at a certain point. The electric field at that point is	A. 1.2 x 10⁴ N/C B. 1.2 x 10⁴ C/N C. 8.3 x 10² N/C D. 8.3 x 10⁻² N/C
13	Two metallic sphere of radius 2 cm and 4 cm get equal quantity of charge. Which has greater surface charge density ?	A. 2nd sphere B. Both have same C. First sphere D. None of these
14	The number of lines per unit area passing perpendicular through an area is called	A. Flux B. Electric intensity C. Both (a) , (b) D. None of these
15	Presence of dielectric always.	A. Increase the electrostatic force B. Reduces the electrostatic force C. Do not effect electrostatic force D. Doubles the electrostatic force
16	Dielectric constant ε_r for air is:	A. 1 B. 1.006 C. 1.0002 D. 1.0006

17	Force per unit charge is called:	A. Gravitational force B. Electric field intensity C. Coulomb's force D. None of these
18	Concept of electric field lines was given by:	A. Michelson B. Henry C. Michael faraday D. Oersted
19	The electric field created by positive charge is:	A. Radially outward B. Circular C. Radially inward D. Zero
20	The middle region of electric field is:	A. Maximum field spot B. Zero field spot C. Perpendicular field spot D. All of above
21	The process of copying is:	A. Axillugraphy B. Chromatography C. Xerography D. Spectrography
22	The "toner" of photocopier is given:	A. Positive charge B. Negative charge C. Remains neutral D. All of above
23	Electric flux is a:	A. Scalar quantity B. Vector quantity C. Variable quantity D. None of these
24	The total flux through a closed surface.	A. Directly proportional to shape and geometry B. Independent of medium C. Depend on shape and geometry D. Dependent on medium and the charge enclosed
25	Flux through any closed surface is:	A. 1/ε²_◦ times the total charge enclosed in it B. ε²_◦ time the total charge enclosed in it C. 1/ε_◦ ties the total charge enclosed in ti D. ε_◦ time the total charge enclosed in it
26	Net charge enclosed by Gaussian surface is:	A. zero B. maximum C. depend on intensity D. none of all
27	Electric intensity due to an infinite sheet of charge is:	A. ∂/2ε_◦ B. ∂/rε_◦ C. ∂/r2ε_◦ D. none of these
28	The electrical intensity is equal to:	A. -Δr/Δv B. Δv/Δr C. Δv/Δv D. -Δv/Δr
29	Electric potential at a distance "r" from "q" is:	A. V_r = 1/54πε_◦q/r₂ B. Vr=1/4πε_◦²q/r C. V_r=1/4πε_◦2q/r D. V_r=1/4πε_◦q²/r
30	The leV =	A. 1.6x10-19C B. 1.6x10-11J C. 1.6x10-19J D. 1.6x10-11C
31	Coulomb's force is:	A. Conservative force B. None conservative force C. Similar to frictional force D. None of the above
32	A charge Q is divided into tweo parts q and Q-q and seperated by a distance R. The force of equilibrium between them will be maximum when:	A. q=Q/4 B. q=Q/2 C. q=Q D. None of these
33	Some charge is being given to a conductor. Then its potencial	A. Its maximum at surface B. Its maximum at Its maximum at center C. Is remain same throughout the conductor

		D. Is maximum somewhere between surface and centre
34	Electric potencial of earth is taken to be zero because the earth is good:	A. Semiconductor B. Conductor C. Insulator D. Dielectric
35	A proton is about 1840 time than an electron. When it is accelerated by a potencial difference if 1 kV, its kinetic energy will be:	A. 1884 ke V B. 1/1840 keV C. 1 keV D. 920 keV
36	A capacitor is charged with a battery and then it is disconnected. A slab of dielectric is now inserted between the plates, Then	A. The charge in the plates reduces and potencial difference increase B. Potencial difference between the plates increase, stored energy decreases and charge remains the same C. Potencial difference between the plates decreases, stored energy decreases and charge remains unchanged D. None of them
37	A one microfarad capacitor of a TV is subjected to 4000 V potencial difference.The energy stored in capacitor is:	A. 8 j B. 16 j C. 4 x 10⁻³j D. 2 x 10⁻³j
38	The electric field in some region of of space is uniform in magnitude and direction. Which one of the following five statements best desccribes the volume charge density (ρ) , in this region of space?	A. ρ = 0 B. ρ decreases linearly in the direction of the electric field C. ρ increases linearly in the direction of the electric field D. ρ has a uniform value throughout the region E.
39	Two parrallel, metal plates are a distance 8.00 m apart. The electric field between the plates in uniform, Directed toward the right , and has a magnitude of 4.00 N/C. If an ion of charge +2e is released at rest at the left-hand plate. What is its kinetic energy when reaches the right-hand plate?	A. 4 eV B. 64 eV C. 32 eV D. 16 eV
40	If the medium between the charges is not free space then electrostatic force will.be	A. Increase B. Decrease C. Remain same D. None of these
41	For which material medium, force between two charged particles is maximum.	A. Ammonia B. Germanium C. Mica D. Teflon
42	The electrons in one coulomb change is equal to.	A. 1.6 x 10⁻¹⁹ B. 2.25 x 10⁻¹⁹ C. 6.25 x 10⁻¹⁸ D. 6.25 x 10⁻¹⁹
43	The SI unit of relative permittivity is.	A. Fm-1 B. C2N-1m-2 C. Nm2C-2 D. No unit
44	The electrostatic force between two charges is 42 N, If we place a dielectric of E_y=2.1 between the charges then the force become equal to.	A. 42 N B. 88.2 N C. 20 N D. 2 N
45	If the distance between the two charged bodies is halved, the force between them becomes.	A. Double B. Half C. Four times D. One times
46	If both the magnitude of charges and distance between them is doubled, then coulomb's force will be.	A. Doubled B. Hlaf C. Remain same D. One fourth
47	the force between two charge is 28 N. If paraffin wax of relative permittivity 2.8 is introduced between the charges as medium, then the force reduces to.	A. 25 N B. 20 N C. 10 N D. 15 N
48	Two oppositely charged balls A and B attract the third ball C, when placed near them turn by turn The third ball C must be.	A. Positively charged B. Negatively charged C. Electrically neutral

		D. Positively and negatively charged
49	If F1 and F2 are teh magnetic forces acting on a particle and electron respectively when moving perpendicular to the magnetic field then.	A. F1=F2 B. F1>F2 C. F1<F2 D. F1 = 4F2
50	If the distance between two charges is halved and charges are also doubled, then force between them will be.	A. Two time B. Four time C. Eight time D. Sixteen time
51	S.I unit of strength of electric field is	A. J/C B. C/V C. V/C D. N/C
52	NC-1 is the SI unit is	A. Force B. Charge C. Current D. Electric intensity
53	The fact that electric field exist in space around an electrical charge is	A. Electrical property B. Gravitational property C. Intrinsic property of nature D. Extrinsic property of nature
54	Concept of the electric field lines is introduced by	A. Coulomb B. Faraday C. Einstein D. Joseph henry
55	Electric field intensity at a point is defined by the relation.	A. E= q/F B. E = F/q C. E = qF D. E = F/q2
56	One joule is equal to.	A. 1.6 x 10¹⁹ eV B. 1.6 x 10⁻¹⁹ eV C. 6.25 x 10⁻¹⁸ eV D. 6.25 x 10 ¹⁸ eV
57	The electric field created by positive charge is	A. Radially inward B. Zero C. Circular D. Radially outward
58	The electric field lines are closer where the field is	A. Strong B. Weak C. Uniform D. Variable
59	Closeness of the electric field lines is the measure of.	A. Direction of field B. Strength of field C. Potential difference D. Uniformity of field
60	A charge on 4 coulomb is in the field of intensity 4N/C the force on the charge is.	A. Uniform B. Non uniform C. Weak D. Strong
61	Photo copier and inkjet printer are the applications of	A. Magnetism B. Electricity C. `.Electro magnetism D. Electrostatics
62	Identify the practical application of electrostatic force.	A. Inkjet printer B. x rays C. Laser D. A.C. Generator
63	One of the applications of electrostatic induction is	A. Laser B. Photocopier C. X ray machine D. Wilson cloud chamber
64	Selenium is a	A. Insulator B. Photoconductor C. Conductor D. First insulator then conductor
65	The toner of printer is given	A. Positive charge B. Negative charge C. Neutral D. First positive then negative
66	Drum of photocopier is made of.	A. Copper B. Aluminum

66		C. Nickel D. Cobalt
67	Selenium is	A. Insulator is dark B. Insulator in light C. Conductor in dark D. Semi conductor in dark
68	In photocopier, then drum is coated with layer of.	A. Aluminium B. Copper C. Selenium D. silver
69	Which one is photo conductor.	A. Copper B. Selenium C. Mercury D. Aluminium
70	SI unit of electric flux is.	A. NmC¹ B. Nm⁻¹ C¹ C. Nm²C⁻¹ D. Nm³C²
71	A changing electric flux creates.	A. Electric fields B. Gravitational C. Magnetic field D. Electric charge
72	For computation of electric flux, the surface area should be.	A. Parallel B. Flat C. Curved D. Spherical
73	The electric flux through closed surface depends upon	A. Charge B. Medium C. Geometry D. Charge and Medium
74	Total flux through a closed surface depends on.	A. Shape of surface B. Medium only C. Charge enclosed only D. Charge and Medium
75	Gauss's law can only be applied to.	A. A curved surface B. A flat surface C. A closed surface D. A surface of any shape
76	Intensity of field inside a hollow charged sphere will be.	A. Negative B. Unaffected C. Zero D. Maximum
77	The negative of the potential gradient is	A. Electrostatic force B. Electromotive force C. Potential difference D. Electric field intensity
78	Two opposite point charge of same magnitude separated by distance 2d, electric potential mid way between them is.	A. 1 V B. 2 V C. Zero D. V/2
79	The work done is bringing a unit positive charge from infinity to that point in an electric field is called.	A. Potential B. Potential difference C. Absolute potential D. All of these
80	An ECG records the _____ between points on human skin generated by electric process i the heart.	A. Heart beat B. Pulse rate C. Pressure D. Voltage
81	Special organs called ampullae of lorenzenite are present in.	A. Bats B. Cats C. Dogs D. Sharks
82	If a charged body is moved against the electric field it will gain.	A. P.E. B. K.E. C. Mechanical energy D. Electrical potential energy
83	The absolute electric potential at a point distance 20 cm from a charge of 2 uC is.	A. 9 x 10² V B. 9 x 10³ V C. 9 x 10⁴ V D. 9 x 10 ⁵ V

84	Electro encephalon graph is the diagnostic test for the working of.	A. Eye B. Heart C. Brain D. Lungs
85	Electron volt is the unit of.	A. Potential B. Potential difference C. Electric current D. Electric energy
86	One electron volt is equal to.	A. 1.6 x 10⁻¹⁹ Joule B. 1.6 x 10⁻¹⁹Coulomb C. 1.6 x 10⁻¹²N D. 1.6 x 10¹⁸Joule
87	The amount of energy equal to 1.6×10^{-18} J is called.	A. One volt B. One milli volt C. One electron volt D. One mega electron volt
88	Charge on electron is	A. 1.6 x 10⁻¹⁹ C B. 1.6 x 10¹⁹C C. 1.6 x 10⁻¹⁷C D. 1.6 x 10¹⁷C
89	The force of Neutron due to field of 10^2 N/C is.	A. 1.6 x 10⁻¹⁷N B. 1.6 x 10⁻¹⁹N C. Zero D. 1.6 x 10⁻²¹N
90	In Millikan's oil drop experiment a charged particle of mass 'm' is in equilibrium in an will	A. Zero B. g/2 C. g D. 2g
91	Farad is defined as	A. "Coulomb/Volt B. Ampere /Volt C. Coulomb /Joule D. Volt/Coulomb
92	A capacitor stores energy in the form of.	A. Magnetic field B. Heat energy C. Electrical energy D. Mechanical energy
93	Charge carriers in electrolytes are.	A. Protons B. Electrons C. Holes D. Positive and Negative ions
94	A capacitor is perfect in insulator for.	A. Alternating current B. Sparking current C. Eddy current D. Direct current
95	Coulomb /volt is called.	A. Farad B. Ampere C. Joule D. Henry
96	Which material should be inserted between the plates of a capacitor in order to increase its capacitance.	A. Copper B. Mica C. Iron D. Tin
97	The net charge on a capacitor magnitude of charge of charge	A. Infinity B. 2 q C. Q/2 D. Zero
98	If the separation between the plates of a capacitor is doubled then its capacitance become.	A. Double B. Half C. One fourth D. Three times
99	Capacitance of a capacitor does not depend upon.	A. Distance between plates B. Area of plates C. Electric field between plates D. Medium between plates
100	Presence of dielectric between two charges always.	A. Reduces the electric force B. Enhance the electric force C. Does not effect electric force D. Double the electric force
101	The capacitance of a capacitor depends upon.	A. Thickness of plates B. Charges on the plates C. Voltage applied

		D. Geometry of the capacitor
102	Due to polarization, electric field E.	A. Increase B. Decrease C. First increases then decreases D. Remain same
103	The electric potential at a mid point in an electric dipole is.	A. 0 V B. 0.5 V C. 1 V D. 1.5 V
104	When some di electric is inserted between the plates of a capacitor, then capacitance.	A. Decreases B. Increases C. Becomes zero D. Becomes infinity
105	If the potential difference across two plates of capacitor is doubled, then energy stored in it will be.	A. Two times B. Eight times C. Four times D. Remain same
106	The product of resistance and capacitanc eis.	A. Velocity B. Force C. Acceleration D. Time
107	The quantity time constant RC has units of.	A. Charge B. Time C. Capacitance D. Resistance
108	if time constant in RC series circuit is small, then capacitor is charged or discharged.	A. Slowly B. Rapidly C. At constant rate D. Intermittently