Multiple Choice Questions

Ql. Each question is followed by four options encircle the correct option.

1) The distance between two point charges is 20 cm. If the distance is reduced to 10 cm, the coulomb force would become:

a. half
b. two times
c. one fourth
d. four times

2) When positive charge of 2 coulombs is placed at a point in an electric field, it experience a force of 6N. The intensity of electric at this point is:

a. 6N.0
b. $3N\ C^{-1}$
c. $12N\ C^{1}$
d. $61.5N\ C^{-1}$

3) The .... which stores charge is known as:

a. electroscope
b. conductor
c. capacitor
d. insulator

4) The force on unit charger

a. electric intensity
b. electric charge
c. electrostatic
d. induction

5) Which statement is not true?

a. atom has no charge in it
b. nucleus is the central part of atom
c. protons have positive charge
d. protons have negative charge

6) Which is not true?

a. in an atom number of electrons is always equal to number of neutrons
b. number of electrons is equal to the number of protons
c. atom is a neutral particle
d. electrons revolve round the nucleus in orbits

7) In S.I. system, the unit of potential is called:

a. volt
b. ampere
c. ohm
d. farad

8) If at any point the value of one coulomb of charge is equal to the potential equal (1 volt), then the capacitance at this point will be in farad is:

a. two
b. three
c. four
d. one

9) 1 e-V is equal to:

a. $6.6x\ 10^{2}J$
b. $1.6 \times 10^{-19}C$
c. $1.6 \times 10^{-19}\ J$
d. $1.6 \times .10^{-19}\ A$

10) Which is not true?

a. capacitor is used to store charge for long time
b. capacitors have two parallel metallic plates
c. the distance between these plates is very large
d. these plates have air or insulated material between them

11) Which is not true?

a. in parallel combination of capacitors left plates of all the capacitors are connected to one point and the right ones to another point
b. the potential difference across each capacitor is three times the voltage of batters
c. the potential difference across each capacitor is equal to the voltage of battery
d. battery supplies charge to each capacitor

12) Which statement is not correct?

a. the number of lines of force and electric intensity are related to each other
b. lines of force are near to each other where field is strong
c. the lines of force are far apart where field is weak
d. the lines of force are far apart where field intensity is strong

13) Which is not true?

a. there are no free electrons in metals
b. metals have free electrons
c. the presence of extra electrons on a body makes it negatively charged
d. a body deficient in electrons makes a body positively charged.

14) If n capacitors are combined in parallel, the equivalent capacitance of the combination in ... given by:

a. $C_e = \frac{1}{C_1} + \frac{1}{C_2} + \frac{1}{C_3} + \ldots\ldots + \frac{1}{C_n}$
b. $C_e = C_1 + C_2 + C_3 + \ldots\ldots C_n$
c. $C_e = \frac{1}{C_1} + \frac{1}{C_2} + C_3 + C_4 + \ldots\ldots + \frac{1}{C_n}$
d. $C_e = \frac{1}{C_1} \times \frac{1}{C_2} + \ldots\ldots + \frac{1}{C_n}$

15) If capacitance is 5 μF and voltage is 20 volts, then the charge on the capacitor of capacitance C_1 would be:

a. 20 μC
b. 100 μC
c. 25 μC
d. 4 μC

16) If the presence of a charged body, an insulator has like charges at one end and unlike charges at the other end, then it is called:

a. electrostatic induction
b. intensity
c. field strength
d. line of force

17) The instrument used for testing and detecting the charge is:

a. endoscope
b. electroscope
c. systoscope
d. telescope

18) The correct equation for coulomb's law is:

a. $F = \frac{1}{4\pi \epsilon_0} \frac{r^2}{q_1 q_2}$
b. $F = \frac{1}{4\pi \epsilon_0}$
c. $F = \frac{q_1 q_2}{r2}$
d. $F = \frac{1}{4\pi \epsilon_0} \frac{q_1 q_2}{r^2}$

19) The unit of potential difference volt was named after:

a. Michael Faraday
b. Ohms
c. Alexendro Volta
d. Graham

20) Which is used for tuning a radio?

a. fixed capacitor
b. variable
c. solenoid
d. capacitor

21) Similar charges always:

a. attract
b. repel
c. no effect
d. none of these

22) When a glass rod is rubbed with silk it becomes:

a. positively charged
b. negatively charged
c. becomes neutral
d. none of these

23) The force which is attractive as well as repulsive is:

a. gravitational force
b. electromagnetic force
c. coulomb force
d. magnetic force

24) In the formula $F = \frac{1}{4\pi \epsilon_0} \frac{q_1 q_2}{r^2}$, $K = \frac{1}{4\pi \epsilon_0}$ and its value is:

a. 8.85 x 10-12 c2 N -1 m-2
b. 9.81 Nm2c-2
c. 6.67 x 10-" Nm2C-2
d. 9 x 109 Nm2c-2

25) The force acting on a unit positive charge placed at that point is called:

a. electric intensity
b. electric induction

26) Electric intensity is:

a. scalar quantity
b. vector quantity
c. not measurable
d. none of these

27) Electric field lines never:

a. in outward direction
b. in inward direction
c. cross each other
d. all are true

28) The number of electric lines of force is related with:

a. direction of field
b. region around charge
c. magnitude of charge
d. strength of field

29) The pression of potential is:

a. W/q
b. qV
c. q/W
d. WV

30) Electron volt is the unit of:

a. potential difference
b. energy
c. power
d. electricity intensity

31) One electron volt is equal to:

a. I volt
b. 1.6 x 1019 volt
c. 1.6 x 10-19J
d. 1.6 x 10+19J

32) When a positive charge moves from low potential to high potential then the potential energy:

a. remains same
b. decreases
c. increases
d. none of these

33) A negative charge always moves from:

a. positive to negative
b. negative to positive
c. low potential to high potential
d. both (b) and (c)

34) Applications of electrostatic is:

a. separation of smoke and particles from gas
b. electro painting o... cars
c. photo copier.
d. all of them

35) Capacitor is the device which store:

a. potential difference
b. charge

36) Capacitance is given by:

a. Q/V
b. V/Q
c. QV
d. ½ QV2

37) The unit of capacitance is:

a. Joule
b. dioptre
c. farad
d. coulomb

38) If capacitors are joined in series, the capacitance will:

a. increase
b. decrease
c. become zero
d. remains same

39) Capacitance increases if capacitors are joined in:

a. series
b. in series and parallel
c. parallel
d. none of these

40) One pico farad is equal to:

a. 10-3 farad
b. 10-6 farad
c. 10-19 farad
d. 10-12 farad

41) The charge on a capacitor of 100 PF and SO volt potential difference is:

a. 5 nc
b. 50 nc
c. 500 nc
d. 0.5 nc

42) Mica capacitor is an example of:

a. electrolyte capacitor
b. fixed capacitor
c. variable capacitor
d. parallel capacitor

43) In paper capacitor, paper is used as:

a. conductor
b. dielectric
c. insulator
d. both (b) and (c)

44) The Coulomb force between two opposite charges is:

a. repulsive
b. attractive
c. both attractive and repulsive
d. both (b) and (c)

45) The instrument used to detect charge is:

a. capacitor
b. conductor
c. electroscope
d. variable capacitor

46) If the distance between two possible charges becomes double, then the coulomb force between them becomes:

a. half
b. two times

c. one fourth d. four times,

47) 1/Ceq =1/C1 +1/C2 +1/C3 is equivalent capacitance for capacitors in:

a. series b. parallel
c. one series and two parallel d. none of these

48) Which is not conductor?

a. copper b. steel
c. aluminium d. sand

49) Which is not insulator?

a. Rubber b. Mercury
c. Glass d. paper.

50) Used as dielectric:

a. glass b. mica
c. paper d. all of these

ANSWERS

NO.	Ans.	No.	Ans.	No.	Ans.	No.	Ans.
1	D	2	b	3	c.	4	a
5	D	6	a	7	a	8	d
9	C	10	c	11	b	12	d
13	A	14	b	15	b	16	a
17	B	18	d	19	c	20	b
21	B	22	a	23	c	24	d
25	A	26	b	27	c	28	d
29	A	30	b	31	c		c
33	D	34	d	35	b	36	a
37	C	38	b	39	c	40	d
41	A	42	b	43	d	44	b
45	C	46	c	47	a	48	d
49	b	50	d				