NCORE Online NEET Mock Test(Trial)

Biology

Q.1) The number of linkage groups in drosophila is:

[A] 2

[B] 8

[C] 6

[D] 4

Q.2) Mendels experimental material of choice was:

[A] drosophila

[B] sweet pea

[C] garden pea

[D] none of the above

Q.3) How many characters did Mendel choose?

[A] 7

[B] 7 pairs

[C] 14

[D] 8

Q.4) Which part of sweet potato is modified for food storage?

[A] Tap roots

[B] Stem

[C] Adventitious roots

[D] Leaf

Q.5) Which is known as basic unit of classification

[A] Phylum

[B] Species

[C] Family

[D] Kingdom

Q.6) Find out the incorrect match

[A] Phycomycetes-Puccinia

[B] Ascomycetes-Pencillium

[C] Basidomycetes-Ustilago

[D] Deutromycetes-Alternaria

Q.7) Which of the following is not from a sesamoid bone?

[A] Patella

[B] Fabella

[C] Radius

[D] Pisciform

Q.8) _____acts as a shock absorber to cushion when tibia and femur came together D)

[A] Disc

[B] Tendon

[C] Ligament

[D] Cartilage

Q.9) The transverse nerve fibres connecting the two cerebral hemispheres are called

[A] Corpus luteum

[B] Corpus callosum

[C] Corpora quadrigemina

[D] Corpus albicans

Q.10) Foramen of monro connects

[A] First and second ventricle

[B] 3rd and 4th ventricle

[C] Lateral and 3rd ventricle

[D] 4th and neurocoel

Q.11) Which of these is not a steroid hormone?

[A] Aldosterone

[B] Androgen

[C] Estrogen

[D] Thyroxine

Q.12) Which of the following algae is likely to be found in the deepest waters?

[A] Green

[B] Red

[C] Brown

[D] All are found at equal depths

Q.13) Which of the following statements is false about age pyramids?

[A] The shape of the pyramids reflects the growth status of the population.

[B] For human population, the age pyramids generally show age distribution of males and females in a combined diagram

[C] In declining population, the number of pre-reproductive individuals is high.

[D] If in an age pyramid, post reproductive individuals are minimum, it will be expanding population

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Q.14) Find out the correct ones:

(i) Mammals of colder climate generally have shorter ears and limbs to minimise heat loss.

(ii) All organisms have behavioural adaptations that allow them to respond quickly to a stressful condition.

(iii) Some organisms possess behavioural adaptations which allow them migrating temporarily to a less stressful situation.

(iv) Invertebrates and fishes live at greater depths in the ocean have biochemical adaptations to cope with high pressure.

[A] (i) and (ii)

[B] (ii) and (iii)

[C] (i), (iii) and (iv)

[D] (i), (ii) and (iv)

Q.15) The term ‘Hormone’ was coined by

[A] Einthoven

[B] Addison

[C] Starling

[D] Whittaker

Q.16) Which of these processes occurs during repolarization of nerve fibre?

(i) Open Na+ channel

(ii) Closed Na+ channel

(iii) Closed K+ channel

(iv) Open K+ channel

[A] (ii) and (iv)

[B] (i) and (iii)

[C] (ii) and (iii)

[D] (i) and (ii)

Q.17) The Bowmans capsule is found in

[A] Cortex

[B] Renal Pelvis

[C] Medulla

[D] Renal pyramid

Q.18) Which of the following is the correct statement:

[A] The juxtamellary nephrons are reduced in Henles loop.

[B] Vasa recta is well devoloped in cortical nephrons

[C] The PCT and DCT are situated in the medulla of the kidney.

[D] The ascending limb of Henles loop extends as the DCT

Q.19) Which protistan have protein rich layer called pellicle which make their body flexibe?

[A] Slimemoulds

[B] Protozoans

[C] Chrysophytes

[D] Euglenoids

Q.20) Digestive system is first completed in which phylum?

[A] Arthropoda

[B] Annelida

[C] Platyhelminthes

[D] Aschelminthes

Q.21) Find out the incorrect pair

[A] Balanoptera-Mammaryglands

[B] Columba-pneumatic bones

[C] Testudo-Homeothermous

[D] Petromyzon-Cartillaginous vertebral column and cranium

Q.22) Which of the following flower is not zygomorphic

[A] Pea

[B] Cassia

[C] Datura

[D] Gulmohar

Q.23) Which are elongated tube like cells with thick and lignified walls and tapering ends?

[A] Vessels

[B] Tracheids

[C] Sieve cells

[D] Xylem fibres

Q.24) Which of the following is false statement

[A] Aestivation of cotton is twisted

[B] Androecium of citrus is Polyadelphous

[C] Gynoecium on tomato is Syncarpous

[D] Placentation in Dianthus is parietal

Q.25) Which of the following is used as a fuel and has a good capacity of water absorption?

[A] Riccia

[B] Marchantia

[C] Sphagnum

[D] Funaria

Q.26) Upper part of sea/aquatic ecosystem contains

[A] Plankton

[B] Nekton

[C] Plankton and Nekton

[D] Benthos

Q.27) In a monohybrid cross, 120 plants are obtained. The ratio of homozygous and heterozygous will be

[A] 40:80

[B] 60:60

[C] 20:100

[D] 10:110

Q.28) Bananas are seedless because they

[A] Reproduce asexually

[B] Are triploid

[C] Are sprayed with hormone

[D] Are Parthenocarpic

Q.29) The disease 'pneumonia' is caused by

[A] Bacteria

[B] Virus

[C] Cayanobacteria

[D] Cold

Q.30) A woman with 47 chromosomes due to three copies of chromosomes 21 is characterized by

[A] Super femaleness

[B] Triploidy

[C] Turner's Syndrome

[D] Down's Syndrome

Physics

Q.1) step down transformer is used on a 1000 V line to deliver 20A at 120 V at the secondary coil. If the efficiency of the transformer is 80%, the current drawn from the line is

[A] 3 A

[B] 30 A

[C] 0.3 A

[D] 2.4 A

Q.2) A coil of area 10 cm^2 has 200 turns. Magnetic field of 0.1 Wb/ m^2 is perpendicular to the plane of the coil. The field is reduced to zero in 0.1 s, the induced emf in the coil is

[A] 1V

[B] 2V

[C] 0.2V

[D] Zero

Q.3) Which of the following statement is false for the properties of electromagnetic waves?

[A] Both electric and magnetic field vectors attain the maxima and minima at the same place and same time.

[B] The energy in electromagnetic wave is divided equally between electric and magnetic vectors.

[C] Both electric and magnetic field vectors are parallel to each other and perpendicular to the direction of propagation of wave

[D] These waves do not require any material medium for propagation.

Q.4) To what depth below the surface of sea should a rubber ball be taken as to decrease its volume by 0.1%

[Take: density of water=1000kgm³, Bulk modulus of rubber=$9x10^8$ NM^{-2} ; acceleration due to gravity=10 ms^{-2}]

[A] 9m

[B] 180m

[C] 18m

[D] 90 m

Q.5) A wire of initial length L and radius r is stretched by a length l. Another wire of same material but with initial length 2L and radius 2r is stretched by a length 2l. The ratio of the stored elastic energy per unit volume in the first and second wire is

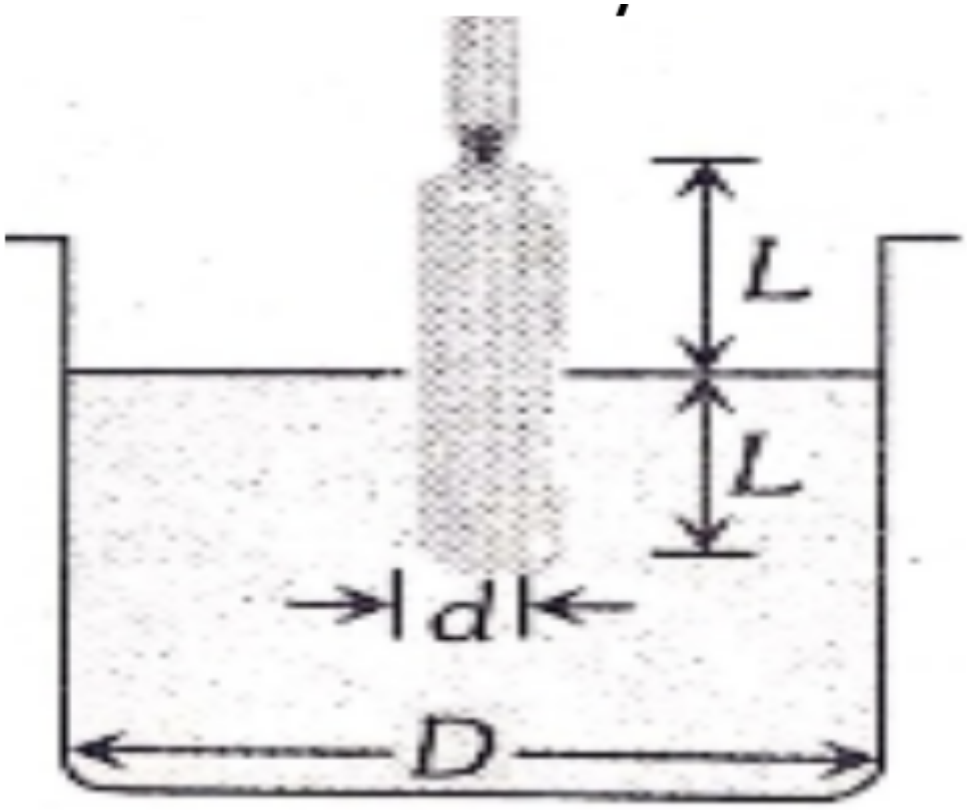
[A] 1:4

[B] 2:1

[C] 1:2

[D] 1:1

Q.6) A candle of diameter d is floating on a liquid in a cylindrical container of diameter D (D>>d) as shown in figure. If it is burning at the rate of 2cm/hour then the top of the candle will



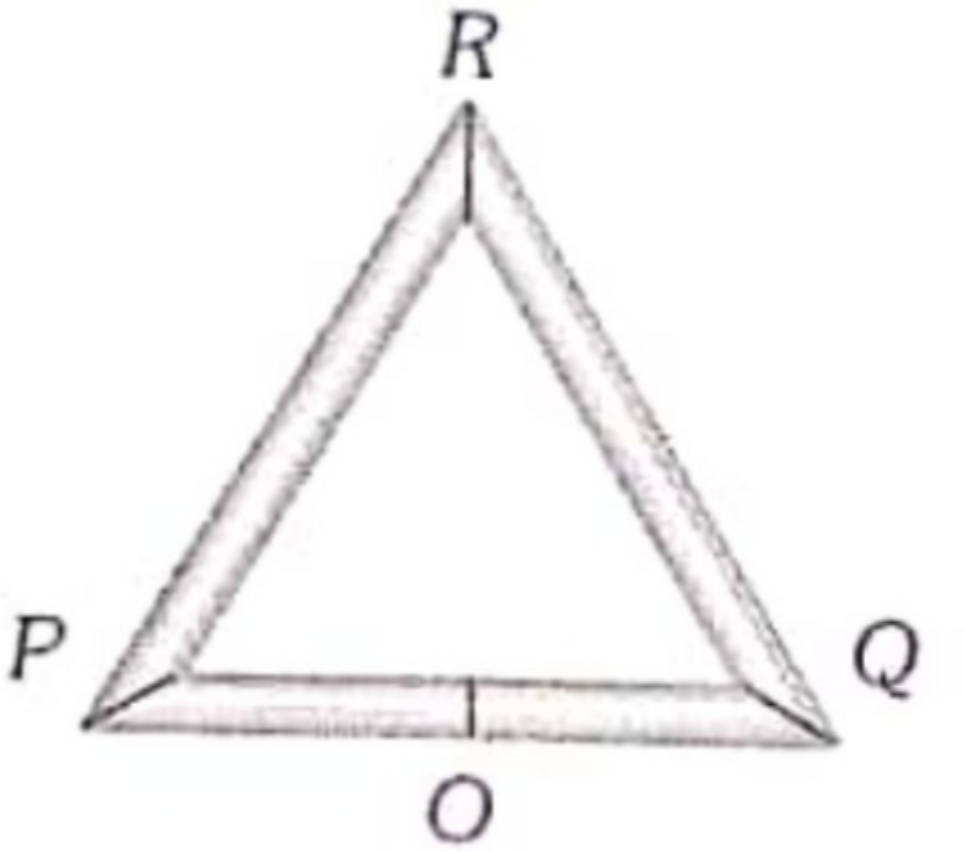
[A] Remain at the same height

[B] Fall at the rate of 1 cm/hour

[C] Fall at the rate of 2 cm/hour

[D] Go up the rate of 1cm/hour

Q.7) Three rods of equal length I are joined to form an equilateral triangle PQR. O is the mid point of PQ. Distance OR remains same for small change in temperature. Coefficient of linear expansion for PR and RQ is same, i.e., α2 but that for PQ is α1



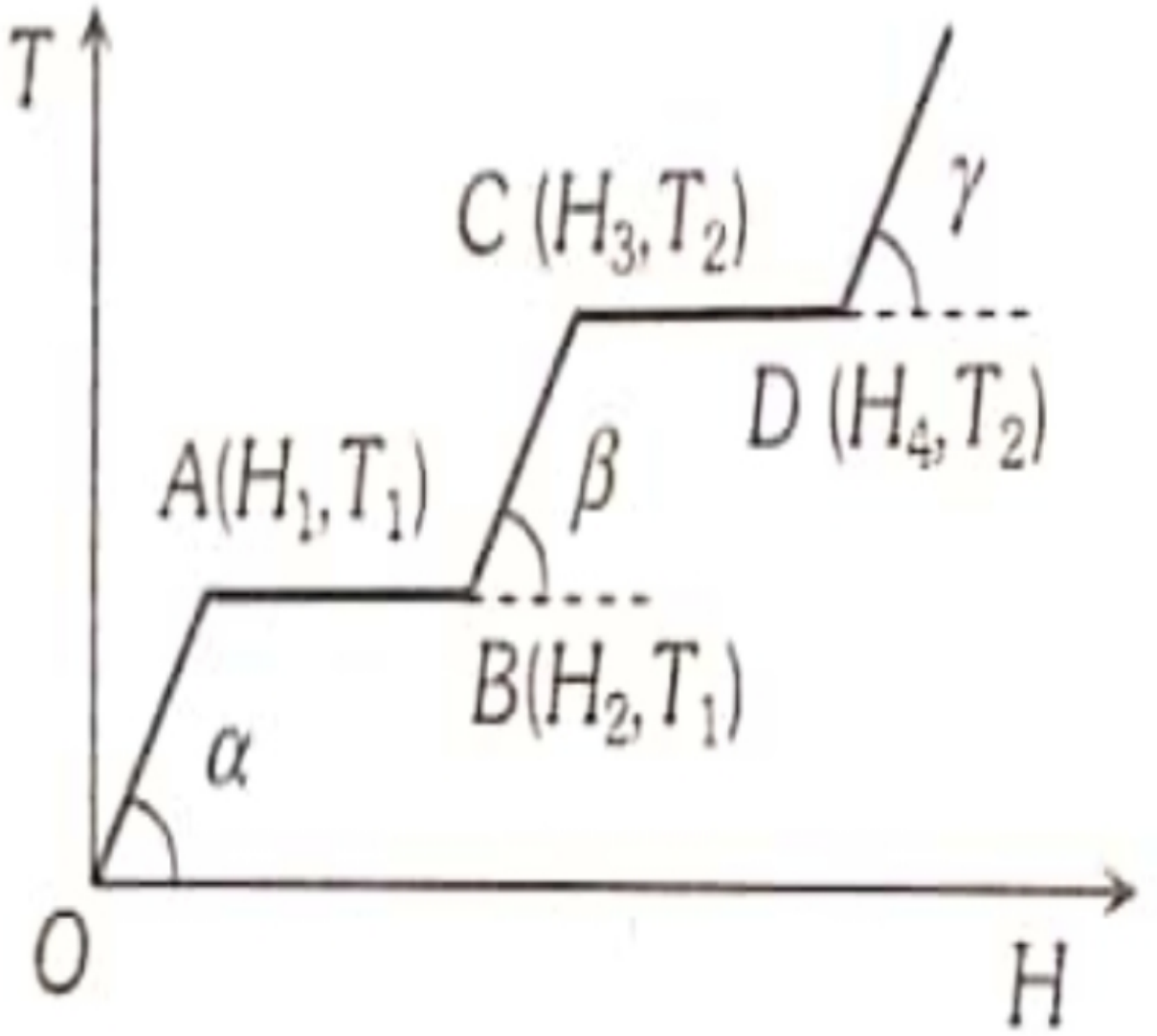
[A] α2 = 3 α

[B] α2 =4 α

[C] α1= 3α2

[D] α1=4α2

Q.8) The graph shows the variation of temperature (T) of one kilogram of a material with the heat (H) supplied to it. At O, the substance is in the solid state. From the graph, we can conclude that



[A] T_2 is the melting point of the solid

[B] BC represents the change of state from solid to liquid

[C] (H_2-H_1) represents the latent heat of fusion of the substance

[D] (H_3-H_1) represents the latent heat of vaporization of the liquid

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Q.9) A tuning fork of frequency 512 Hz makes 4 beats per second with the vibrating string of a piano. The beat frequency decreases to 2 beats per sec when the tension in the piano string is slightly increased. The frequency of the piano strings.before increasing the tension was

[A] 510Hz

[B] 516Hz

[C] 514Hz

[D] 508Hz

Q.10) Two points are located at a distance of 10 m and 15 m from the source of oscillation. The period of oscillation is 0.05 sec and the velocity of the wave is 300 m/sec. What is the phase difference between the oscillations of two points ?

[A] π

[B] π/6

[C] π/3

[D] 2π/3

Q.11) A thin transparent sheet is placed in front of Young's double-slit. The fringe-width will

[A] Increase

[B] Decrease

[C] Remain same

[D] Become non-uniform

Q.12) Lenz's law of electromagnetic induction corresponds to the

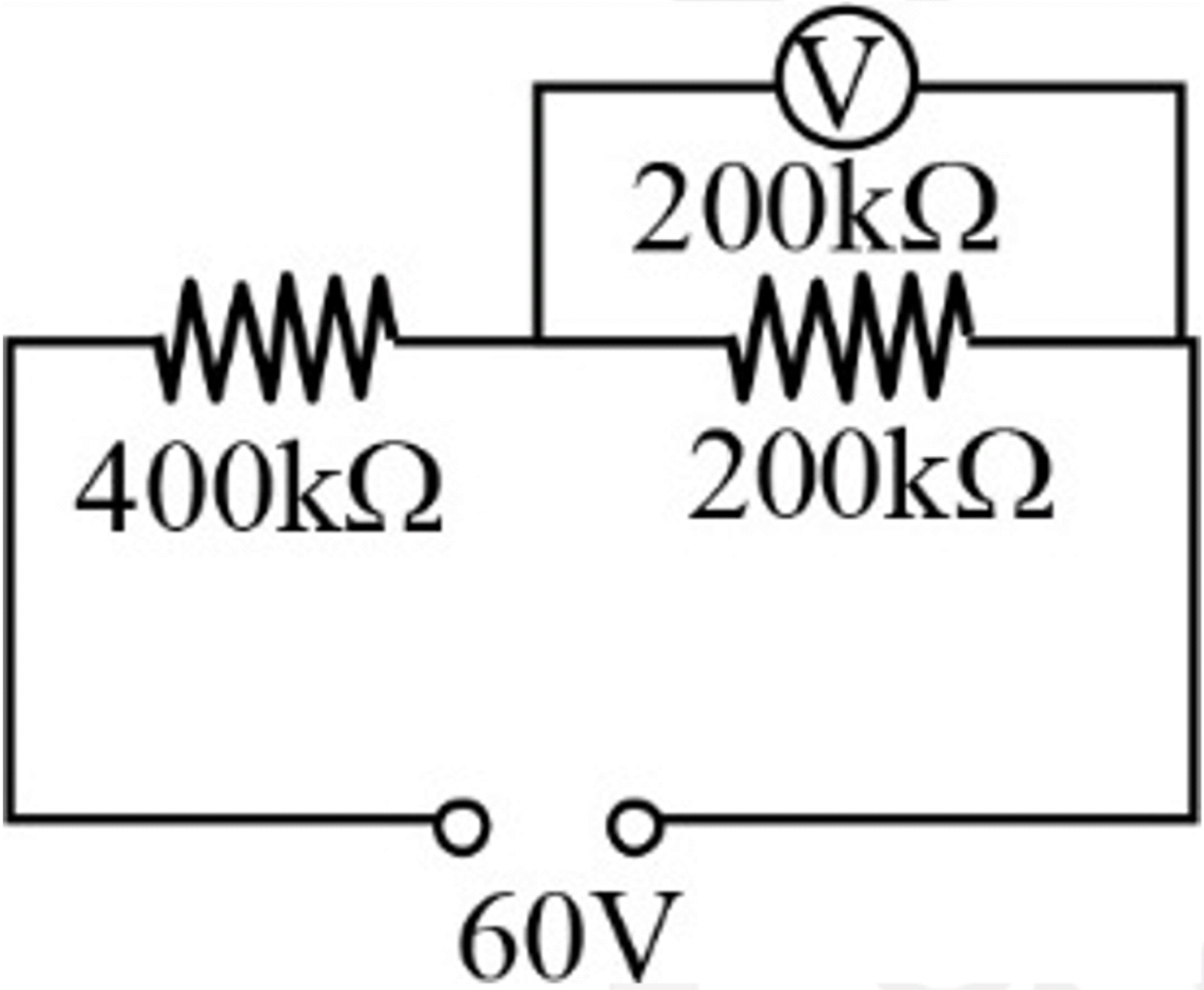
[A] Law of conservation of charge

[B] Law of conservation of energy

[C] Law of conservation of momentum

[D] Law of conservation of angular momentum

Q.13) A constant 60V supply is connected across the two resistors as shown in diagram. Calculate the reading of the voltmeter which has a resistance of 200 kohm



[A] 12V

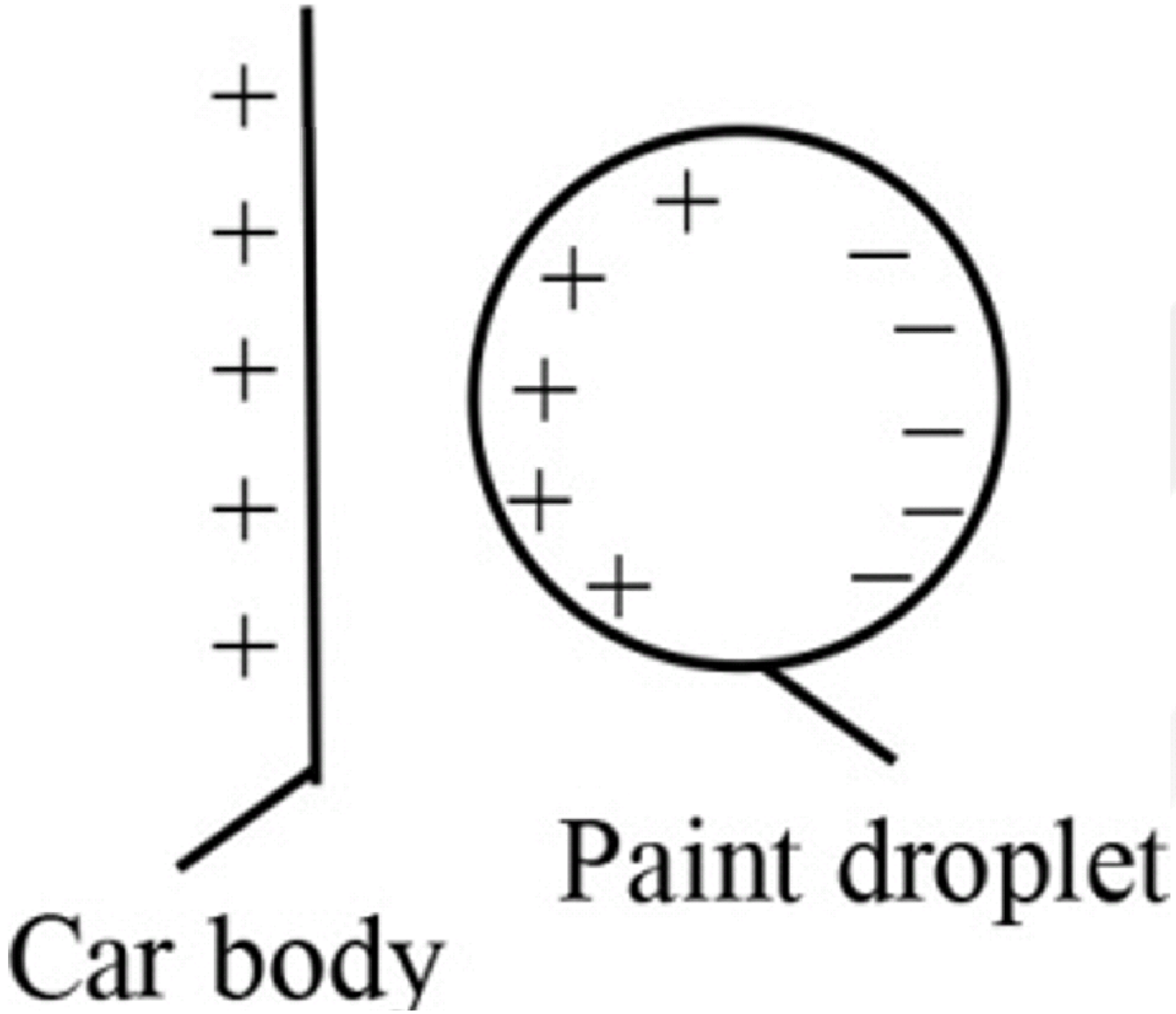
[B] 15V

[C] 20V

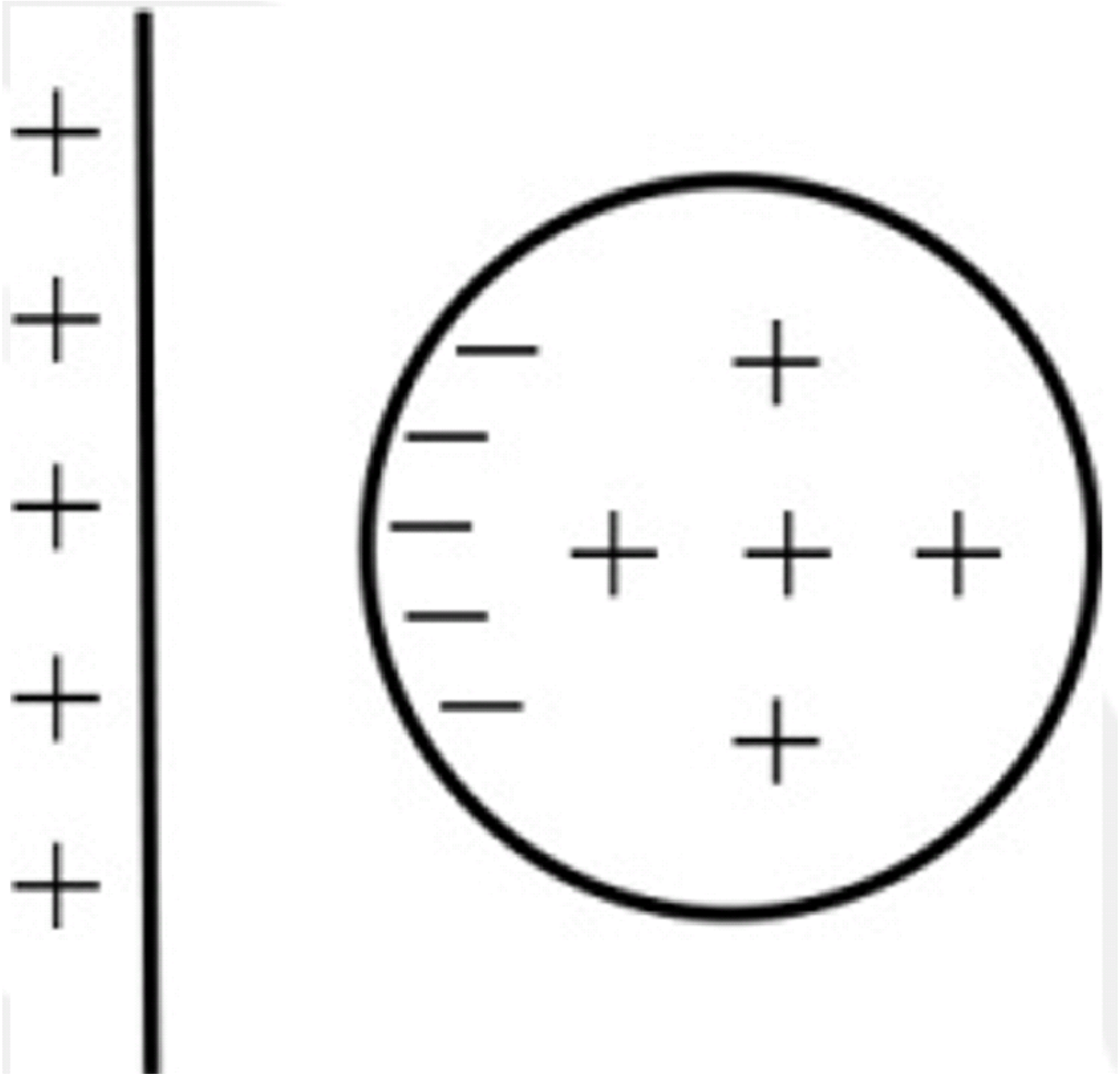
[D] 30V

Q.14) In a system used for spraying cars, a car body is positively charged. Neutral droplets of paint are then attracted to the car because the positive car body induces a charge on the droplets of paint. Which diagram best shows the charge pattern?

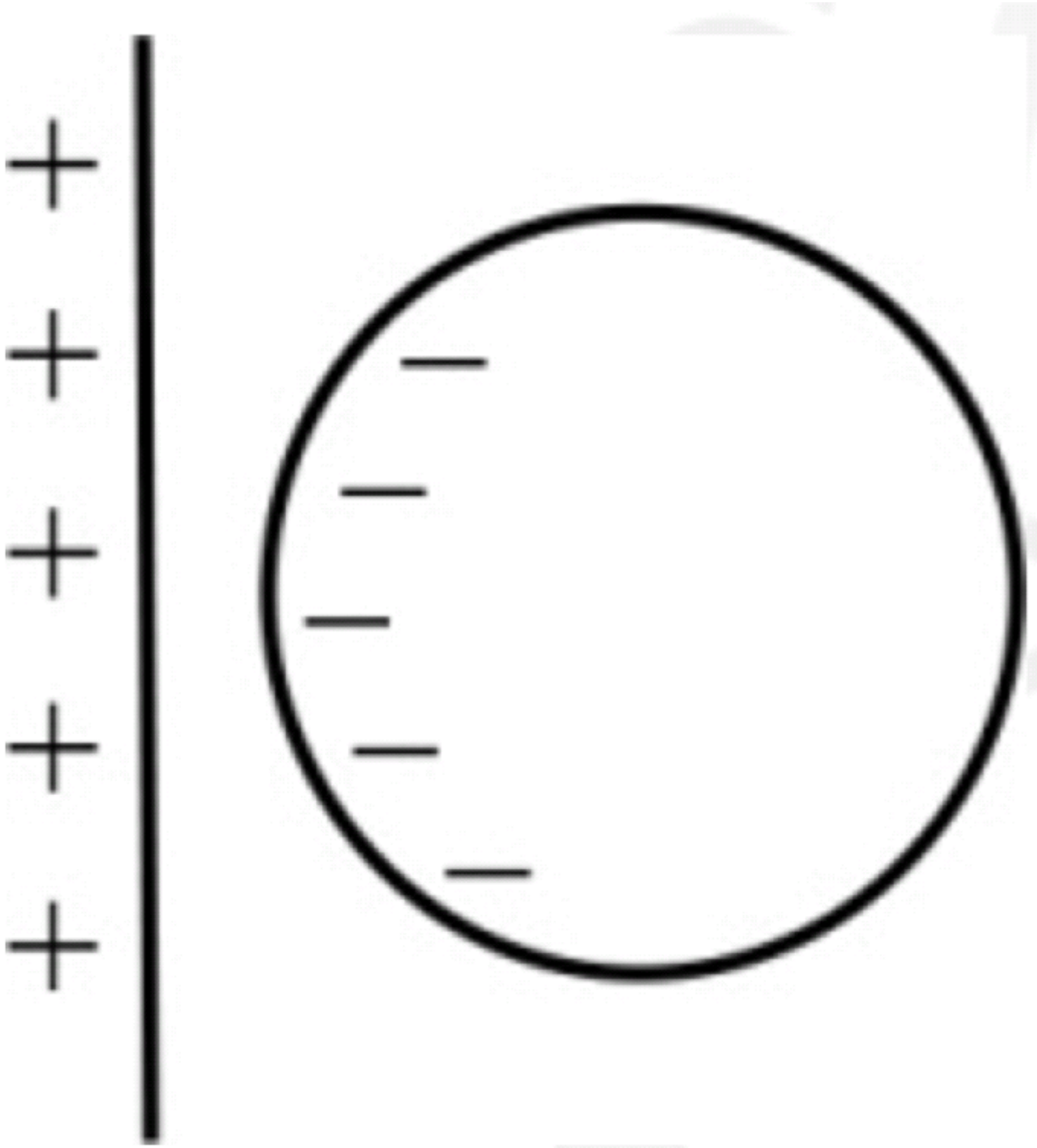
[A]



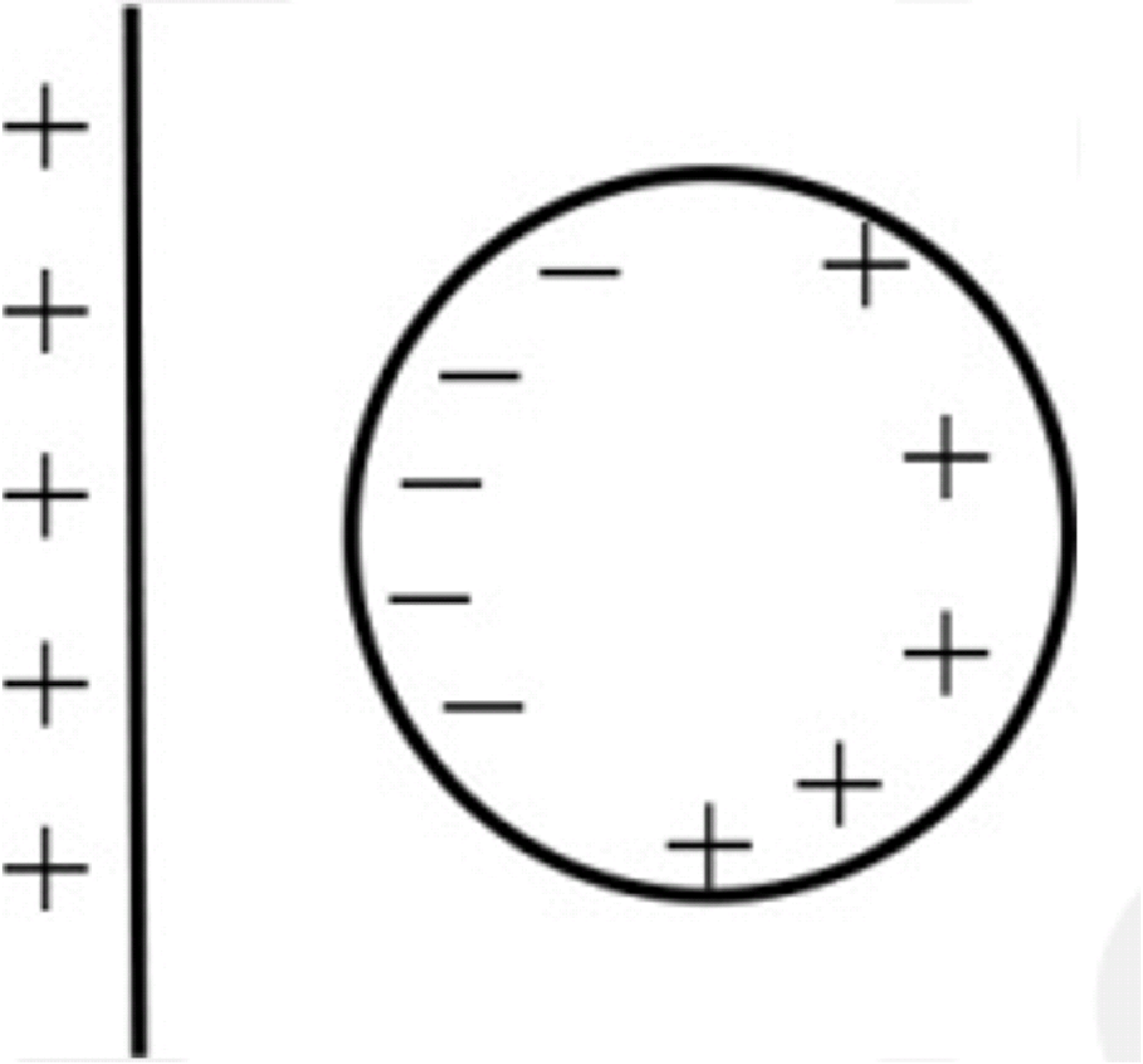
[B]



[C]



[D]



Q.15) If a torch is used in place of monochromatic light in Young's experiment what will happens?

[A] Fringe will appear for a moment then, it will disappear

[B] Fringes will occur as from monochromatic light

[C] Only bright fringes will appear

[D] No fringes will appear

Chemistry

Q.1) An unknown alcohol is treated with Lucas reagent to determine whether the alcohol is primary, secondary or tertiary. Which alcohol reacts fastest and by which mechanism?

[A] Tertiary alcohol by S_N1

[B] Secondary alcohol by S_N2

[C] Tertiary alcohol by S_N2

[D] Secondary alcohol S_N1

Q.2) Benzaldehyde and acetone can be best distinguished using

[A] Fehling's solution

[B] Sodium hydroxide solution

[C] 2,4-DNP

[D] Tollens reagent

Q.3) Which of the following is the strongest acid

[A] Benzoic acid

[B] 4-nitrobenzoic acid

[C] 4-methoxy benzoic acid

[D] 4-methyl benzoic acid

Q.4) The octahedral complex of a metal ion M^{3+} with four monodentate ligand L_1,L_2,$L_3$and L_4 absorb wavelengths in the region of red , green , yellow, blue, respectively . The increasing order of ligand strength of the four ligands is

[A] L1 L2 L4 L3

[B] L4 L3 L2. L1

[C] L1 L3 L2 L4

[D] L 3. L 2 L4 L1

Q.5) Which of the following metal oxides is most basic?

[A] ZnO

[B] Al_2O_3

[C] As_2O_3

[D] K_2O

Q.6) $(Co(NH_3)_4(NO_2)_2)$ Cl shows :

[A] Ionization isomerism, geometrical isomerism, optical isomerism

[B] Linkage isomerism, geometrical isomerism and optical isomerism

[C] Linkage isomerism, ionization isomerism, optical isomerism

[D] Linkage isomerism. , ionization isomerism and geometrical isomerism

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Q.7) Methyl α - D- glycoside and methyl β – D- glycoside are

[A] Epimers

[B] Anomers

[C] Enantiomers

[D] Conformational Diastereomers

Q.8) Consider the following statements
A) $La(OH)_3$ is the least basic among hydroxides of lanthanides
B) Zr^{4+} and Hf^{4+} possess almost the same ionic radii
C) Ce^{4+} can act as an oxidising agent
Which of the above statements is/are true

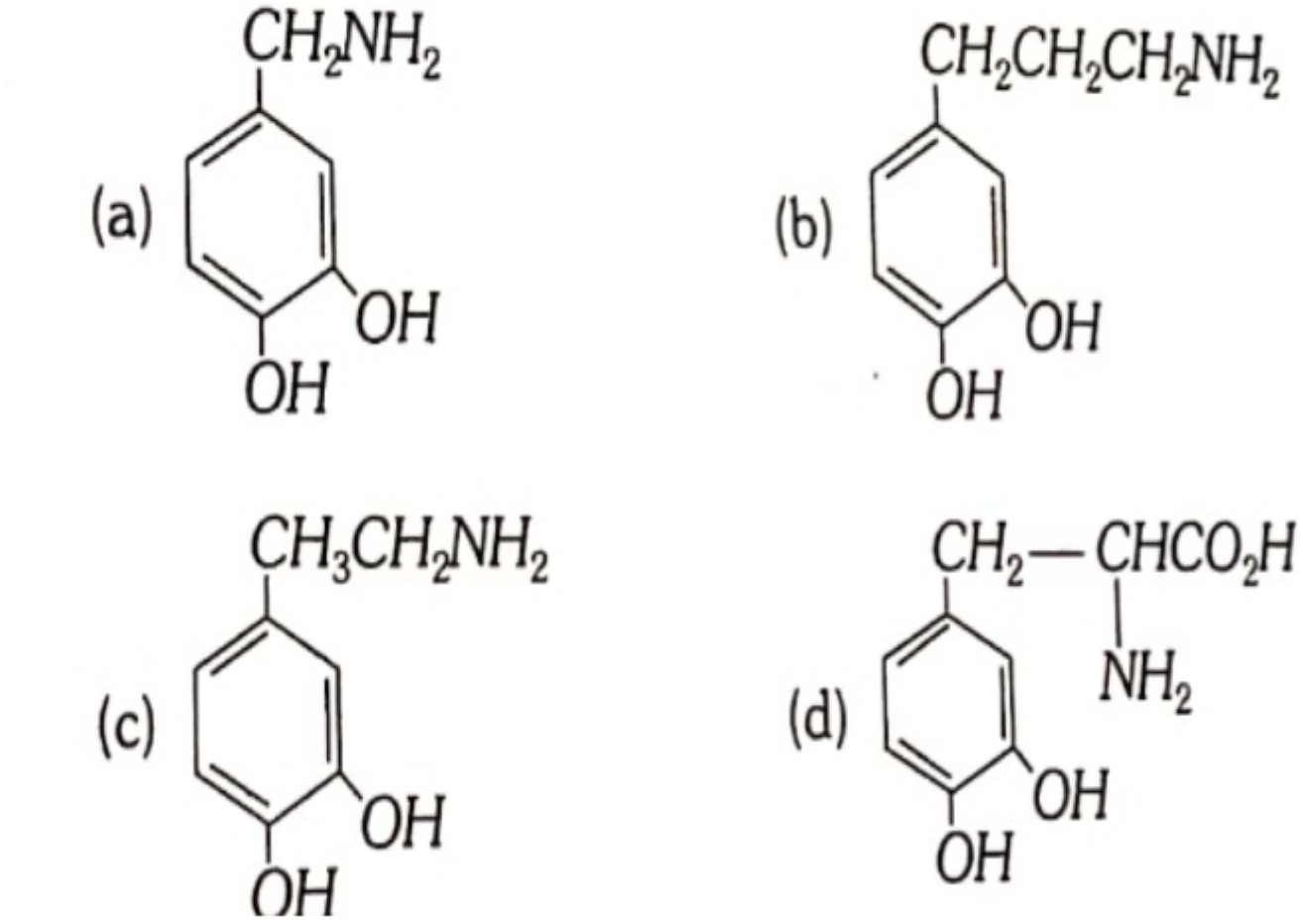
[A] A and C

[B] B and C

[C] B only

[D] A and B

Q.9) Parkinson's disease is linked to abnormalities in the levels of dopamine in the body . The structure of dopamine is



[A] a

[B] b

[C] c

[D] d

Q.10) .In a polymer sample, 30% of molecule have a molecular mass 20000 , 40% have 30000 and the rest have 60000 . What is the weight average molecular mass of the polymer?

[A] 40300

[B] 30600

[C] 43333

[D] 50400

Q.11) The methods chiefly used for the extraction of lead and tin from their ores are respectively

[A] Self reduction and carbon reduction respectively

[B] Self reduction and electrolytic reduction

[C] Carbon reduction and self reduction

[D] Cyanide process and carbon reduction

Q.12) The vapour pressures of pure benzene and toluene are 160 and 60mm Hg respectively. The mole fraction of benzene is vapour phase in contact with equimolar solution of benzene and toluene is

[A] 0.073

[B] 0.027

[C] 0.27

[D] 0.73

Q.13) Williamson synthesis of ether is an example of

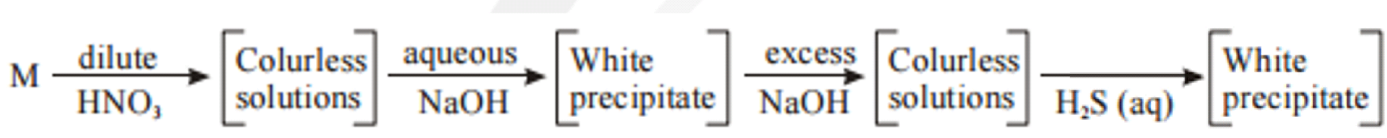
[A] Nucleophilic substitution

[B] Nucleophilic addition

[C] Electrophilic Substitution

[D] Electrophilic addition

Q.14) A metal M and its compound can give the following observable changes in a consequence of reactions



[A] Mg

[B] Pb

[C] Zn

[D] Sn

Q.15) Bakelite and polythene are considered as an example of:

[A] Thermosetting polymers

[B] Elastomers and thermoplastic polymers

[C] Thermoplastic polymers

[D] Thermosetting and thermoplastic polymers