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BIOLOGY

- 1- **Ringworm is caused by:**
 - a) Round worm
 - b) Fungus
 - c) Protozoa
 - d) None of the above

- 2- **Adrenal glands are found adjacent to:**
 - a) Kidney
 - b) Heart
 - c) Lungs
 - d) Liver

- 3- **When a diploid egg is formed w/o fertilization.**
 - a) Parthenogenesis
 - b) Apomixis
 - c) Facultative apomixes
 - d) Reverse transcription

- 4- **The drastic change in climate over a past century has been illustrated by:**
 - a) Increase in rainfall
 - b) Decrease in rainfall
 - c) Colder winter
 - d) Warmer winter

- 5- **The uptake of minerals in a plantare through:**
 - a) Root hair
 - b) Root cap
 - c) Coot tip
 - d) Stomata
 - e) Guard cells

- 6- **Positive geotropism by the:**
 - a) Root
 - b) Stem
 - c) Leave
 - d) Flower

- 7- **The internal maintenance in human:**
 - a) Homeostasis
 - b) Peliploidy
 - c) Excretion
 - d) Epistaxis

- 8- **Animal w/open circulatory system:**
 - a) Cockroach
 - b) Frog
 - c) Snake
 - d) Duck billed platypus

- 9- The ability of cell to swell after absorption of H_2O :
- Inhibition
 - Deplasmolysis
 - Guttation
 - Transpiration
- 10- Sensors that receive stimulus:
- Receptor
 - Neuron
 - Effector
 - All of the above
- 11- A lipid molecule is composed of glycerol fatty acid in a ratio of:
- 1:1
 - 1:3
 - 1:4
 - 1:2
- 12- Which of the following is not a reflex action?
- Eye blink
 - Knee jerk
 - An animal salivating spontaneously as the bell rings without given food.
 - Watering of mouth at the sight of food
- 13- 50% of blood volume is:
- Plasma
 - Formed elements
 - Cells
 - Both b and c
- 14- Plasmodium can be founding the mosquito at:
- Salivary gland
 - CBC
 - Stomach
 - Both A & B
- 15- The formula of glyceraldehyde is:
- $C_3H_6O_4$
 - $C_3H_6O_3$
 - $C_6H_{12}O_6$
 - $C_7H_{14}O_7$
- 16- A green single celled organism in the protista kingdom:
- Algae
 - Bacteria
 - Euglena
 - Amoeba

17- Ribosomes are attached to:

- a) One another
- b) ER
- c) Golgi bodies
- d) Centromeres

18- The reproductive structure of ferns is:

- a) Cones
- b) Needles
- c) Sporophyll
- d) Gametophylls

19- Solanacea is also called:

- a) Legume family
- b) Potato family
- c) Night Shade Family
- d) b & c both

20- In mitosis the no. of chromosomes in daughter cells:

- a) $2n$
- b) n
- c) $1/2n$
- d) None of the above

21- A purely marine phylum:

- a) Mollusca
- b) Echinodermata
- c) Annelids
- d) Arthropods

22- Which animal uses highly vascularized skin for respiration:

- a) Fish
- b) Frog
- c) Snake
- d) A new borne mammal

23- The end product of glycolysis:

- a) Citric acid
- b) Pyruvic acid
- c) Lactic acid
- d) Acetyl CoA

24- Process of transferring bacterium from a donor bacterium to a receive bacterium.

- a) Conjugation
- b) Transduction
- c) Transformation
- d) Regressive Mutation

25- **Lamarck identified evolution as:**

- a) Natural selection
- b) Acquired characters
- c) Disuse / use of organs
- d) Mutation Theory

26- **pH of blood is about:**

- a) 7.35
- b) 7.00
- c) 7.85
- d) 7.66

27- **An ecosystem is:**

- a) Population living together
- b) Species living together
- c) A community with its non living components
- d) A community with its living & non living components

28. _____ **movement is due to touch response:**

- a) Thermonastic
- b) Photonastic
- c) Seismonastic
- d) Thigmotropism

29. **Ascent of sap is governed by the activity of the living cell in the form of pulsatory. This theory is called:**

- a) Physical force theories
- b) Passive force theories
- c) Vital force theories
- d) Active force theories

30. **In coughing the air is forcibly blown larynx while in sneezing it is blown through:**

- a) Mouth
- b) Nasal cavities
- c) Both of these
- d) None of these

CHEMISTRY

- 1- **What will make an electrolyte:**
 - a) Salt dissolved in water
 - b) Sugar dissolved in water
 - c) Salt dissolve inorganic solvent
 - d) All of the above

- 2- **Chemistry is the study of:**
 - a) Chemicals
 - b) Acids
 - c) Base
 - d) Water
 - e) None of the above

- 3- **For Boyle's law to be true, which of the following must be fixed :**
 - a) Isothermal
 - b) Isochoric
 - c) Adiabatic
 - d) Isobaric

- 4- **Which of the following statements about fluorine is not true:**
 - a) It is the most electronegative element
 - b) 19 proton in nucleus
 - c) Compound can engage in H bond
 - d) Oxidation state - 1
 - e) Found in nature as diatomic gas

- 5- **Which of the following molecules has the strongest carbon to carbon bond.**
 - a) C_2H_2
 - b) C_2H_4
 - c) C_2H_6
 - d) C_3H_8

- 6- **Gases are good conductors at:**
 - a) High pressure
 - b) Low temperature
 - c) Low pressure
 - d) None of the above

- 7- **Which of the following will increase the rate of a reaction:**
 - a) Lowering the temp
 - b) Increasing volume
 - c) Reducing activation energy
 - d) Increasing activation energy

- 8- **Bituminous coal can be produced by destructive distillation of:**
 - a) Coke
 - b) Coal gas
 - c) Coal tar
 - d) Coal tear

- 9- **Period three elements have:**
- Same atomic no.
 - Same atomic mass
 - Principal quantum no.
 - Azimuthal No.
- 10- **The tabular arrangement of _____ principle is called long term of the periodic table.**
- (n+l) rule
 - Pauli's Exclusion principle
 - Aufbau principle
 - Hund's rule
- 11- **The K.E. of molecules is:**
- Linearly proportional to Temperature
 - Inversely proportional to temperature
 - Linearly proportional to square root of temperature.
 - Inversely proportional to square root of temperature
- 12- **The K.E. of molecular theory does not state**
- There are intermolecular forces w/n gases
 - There is no volume in gases
 - Collision course is elastic
 - All of the above
- 13- **Capillary action is due to:**
- Surface tension
 - Cohesion
 - Adhesion
 - Viscosity
- 14- **Which is the most electronegative element.**
- Cl
 - Br
 - Ca
 - K
- 15- **The order of which period 3 gases, in order of increasing atomic weight:**
- K, Ca, Br, Kr
 - Br₂, Ca, Kr, Ca
 - N₂, O₂, Cl₂, Ar
 - F₂, N₂, O₂, Ne
- 16- **What happens when no of moles of gas are doubled at a fixed volume:**
- Pressure doubles
 - Pressure is reduced to 1/2
 - Pressure is reduced by 1/4
 - Pressure stays the same

17- Which of these is organic:

- a) SO_2
- b) CH_4
- c) H_2O
- d) HCl

18- Alkenes is the first:

- a) Saturated hydrocarbon
- b) Unsaturated hydrocarbon
- c) Aromatic Hydrocarbon
- d) Super saturated Hydrocarbon

19- Which of the following has highest BP.

- a) Ethylalcohol
- b) Diethyl ether
- c) H_2O
- d) Acetone

20- The first alkane is:

- a) Methane
- b) Ethane
- c) Halothane
- d) Methene

21- The density of Methane at 27 C and 2 atm is?

- a) 0.6 gm/dm³
- b) 9.1 gm/dm³
- c) 1.8 gm/dm³
- d) 0.91 gm/dm³

22- Which of the following is not a chemical change:

- a) Rusting of iron
- b) Refractive index
- c) Boiling of water
- d) Electrolysis of Cu^{++}

23- What is true about water density:

- a) It is less than that of ice
- b) It is more than that of ice
- c) It is equal.
- d) None of the above

24- _____ periods, contain equal elements:

- a) 1st & 2nd
- b) 2nd & 3rd
- c) 2nd & 4th
- d) 6th & 7th

25- The elements which have only one valence electron are called:

- a) Coinage metals
- b) Alkaline earth metals
- c) Alkali metals
- d) Heavy metals

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- 26- The position of hydrogen in periodic table is:
- IA
 - IVA
 - VIIA
 - Still undecided
- 27- Liquefying point of N_2 gas is:
- $-252^\circ C$
 - $+252^\circ C$
 - $-196^\circ C$
 - $+196^\circ C$
- 28- M.P of NaCl is $801^\circ C$. In down's process it is reduced to $600^\circ C$ by using:
- MgCl
 - CaCl
 - $MgSO_4$
 - $CaSO_4$
- 29- Which one of the following sets of atomic numbers represents only alkali metals:
- 2, 4, 10
 - 3, 11, 19
 - 2, 10, 18
 - 9, 17, 35
- 30- The I.U.P.A.C. name of $K_4[Fe(CN)_6]$:
- Potassium hexacyano ferrate (II)
 - Potassium hexacyano ferrate (III)
 - Potassium ferrocyanate
 - Potassium ferricyanide

PHYSICS

- 1- In a NPN transistor, P work as a:
- Collector
 - Base
 - Emitter
 - None of these
- 2- A transformer works according to:
- Mutual induction
 - Lenz's law
 - Faraday's law
 - All of the above
- 3- Work has same units as:
- Torque
 - Power
 - Momentum
 - Angular Momentum
- 4- Two mass each of 60g are attached to a fiction less pulley. When 10g are added to one of the mass, what is it downward acc in cm/s^2 .
- 32
 - 80
 - 160
 - 320
- 5- Compton effect describes the nature of light as a:
- Photon
 - Wave
 - Dual nature
 - Longitudinal waves
- 6- A bomb blasts on the moon, its sound will be heard on earth after:
- Sound will not be heard
 - 11-2 min later
 - 138 minutes later
 - 88 minutes later
- 7- Longitudinal waves cannot travel in:
- Water
 - Solid
 - Vacuum
 - Air
- 8- By changing the temperature of air which of the following quantities will not change:
- Wavelength
 - Frequency
 - Intensity
 - Amplitude

- 9- **Torque describes:**
- Acceleration
 - Angular acceleration
 - Linear acceleration
 - Direction of movement
- 10- **Which of the following is not an adiabatic process:**
- Rapid expansion of air
 - Burst of fire
 - Cloud formation
 - Freezing of liquid water into ice.
- 11- **A radioactive element will not emit:**
- Electron
 - Proton
 - Beta particle
 - Helium
- 12- **A 20Ω and a 60Ω are connected in series to a DC generator. The $I = 4.0A$, What will be the voltage across 60Ω resistor**
- 180
 - 120
 - 240
 - 24
- 13- **The define velocity (angular) by linear velocity of an object moving in a circle is always:**
- 90°
 - 180°
 - 270°
 - 0
- 14- **Doppler's effect applies to:**
- Sound waves only
 - Light waves only
 - Both sound waves by light waves only
 - Magnetic waves only
- 15- **The distance of a monochromatic source of light is tripled from the surface, what happens to intensity:**
- Doubled
 - Tripled
 - Reduced to $1/3$
 - Reduced to $1/9$

16- α -rays are:

- a) Hydrogen nuclei
- b) Helium nuclei
- c) Hydrogen electrons
- d) negatively charged electrons

17- The thing needed / required in the medium for light wave propagation:

- a) Elasticity
- b) Resistance
- c) Density
- d) None of the above

18- An ideal current has resistance:

- a) Zero
- b) Finite but zero
- c) Infinite
- d) 1 Ohm

19- An emf introduced in the DC generator depends on:

- a) Thickness of armature
- b) Thickness of Shaft
- c) The strength of magnetic field
- d) Capacitance of Inductor

20- Unit of Conductance is:

- a) Siemens
- b) Ohm
- c) MHO
- d) Diopes

21- An object is placed, 30cm from a convex lens whose focal length is 15cm, What is the height of image as compared to object.

- a) Same
- b) Smaller
- c) Larger
- d) Double the size

22- A convex lens produces virtual image when the object is placed.

- a) at f
- b) b+w principle focus & centre of curvature
- c) b+w principle focus & Optical center
- d) Beyond 2f

23- In SHM, the velocity is maximum:

- a) Extreme position
- b) Mean position
- c) In the middle
- d) None of the above

24- Capacitance depends on:

- a) Density of wire
- b) Thickness of wire
- c) Resistance of wire
- d) All of the above

25- Vector addition follows:

- a) Commutative law
- b) Associative law
- c) Distributive law
- d) All of thus



ENGLISH**1- Jubilant Antonym:**

- a) Triumphant
- b) Dejected
- c) Rejected
- d) Perceptive

2- Transitory synonym:

- a) Get through
- b) Hesitant
- c) Short lived
- d) Interval

3- Elegant synonym:

- a) Graceful
- b) Ugly
- c) diligent
- d) Mercurial

4- Will I go now no error.

- a b c d e

5- Global warming is the term Referred to:

- a) The temp of the earth is rising
- b) The temp of the universe is rising
- c) The temp of the specific regions is rising
- d) The temp of the ozone layer is rising

