Biology MCQS DATA For PPSC Lecturer Recruitment 2017

Provided by Student INN TEAM Head
Malik Mohsin Hassan (QAU ISB)

∑ **Ecology deals with**
- **a) Biotic factors of environment**
- **b) Abiotic factors of Environment**
- **c) Environmental relations**
- **d) Both a&b**

∑ **Histology is study of living organisms at _____ level.**
- **a) Cell**
- **b) Organ**
- **c) Tissue**
- **d) Community**

∑ **Study of Geographical Distribution of animals is known as**
- **a) Biogeography**
- **b) Zoogeography**
- **c) Animal Geo graphics**
- **d) Non of above**

∑ **Unicellular Plasmodium is studied under the branch of biology called**
- **a) Microbiology**
- **b) Cell Biology**
- **c) Parasitology**
- **d) Pathology**

∑ **Study of life of ocean is**
- **a) Sea Biology**
- **b) Oceanography**
- **c) Marine Biology**
- **d) Ocean Ecology**

∑ **Insulin preparation comes under which branch of biology**
- **a) Social Biology**
- **b) Biotechnology**
- **c) Genetic Engineering**
- **d) Parasitology**

∑ **What is the right distribution of levels of study from smaller to larger**
- **a) Specie, community, population , Ecosystem**
- **b) tissue, cell, organ, system**
- **c) Individual, Specie, population, community**
- **d) Organelle, tissue, organ, System**

∑ **Term Vaccinization was discovered by**
- **a) Edward Jenner**

b) Louis Pasteur

c)Emil Fischer

d) Robert Khoshland

∑ **Biopesticides have advantage over chemical pesticides because**

a) Pests can not develop resistance against them

b) They are cheaper

c) Non Pollutant

d) All of above

∑ **Cloning surely produces organisms that have identical**

a) genotype

b) phenotype

c) genome

d) All of above

∑ **1. The mechanism by which organisms maintain the stability of their cellular environment is known as;**

a. Homeostasis

b. Normal health

c. Structural adaption

d. Osmoregulation

∑ **2. When the concentration of external medium is equal to the concentration of internal medium of cell is called; a. Hypertonic**

b. Hypotonic

∑ **c. Isotonic**

d. Heterotonic

∑ **3. Brassica and rose plant belong to group of plants;**

a. Hydrophytes

b. Mesophytes

c. Xerophytes

d. Succulents

∑ **4. Animals which are unable to adjust their internal salt concentration according to external environment is;**

a. Anhydrobiosis

b. Osmoregulators

c. Thermoregulatory

d. Osmoconformers

∑ **5. Which one of the following animal can survive without drinking water?**

a. Kangaroo rat

b. Pig

c. Kangaroo

d. Camel

6. Nitrogeneous wastes are produced as a result of;

∑

a. Photosynthesis

b. Ingestion

∑ c. Assimilation

d. Deamination

∑ 7. Fresh water protozoans pumped out excess water by a special structure called; a. Oral groove

b. Contractile vacuole

c. Pellicle

d. Vacuole

∑ 8. The term glycogenesis means, the conversion of;

a. glucose to Glycogen

b. Lactic acid to Glycogen

c. Glycogen to Glucose

d. Amino acid to Glycogen

∑ 9. Which one of the following nitrogenous compound is much more soluble in water? a. Uric acid

b. Urea

c. Ammonia

d. Creatine

∑ 10. The removal of amino group from amino acid is called;

a. Transamination

b. Deamination

c. Translocation

d. Transposition

∑ 11. The amount of water required for the removal of 2 g of ammonia is; a. 200 ml

b. 500 ml

c. 100 ml

d. 1000 ml

∑ 12. In flatworms excretory system consists of a net work of closed tubules with out internal openings are called; a. Nephridia

b. Protonephridia

c. Metanephridia

d. Nephrostome

∑ 13. According to the removal of nitrogenous wastes, reptiles and birds are the examples of; a. Uricotelic

b. Ammonotelic

c. Ureotelic

d. Ammoniotelic

∑

14. The functional unit of human kidney is called;

a. Nephridia

b. Collecting tubule

c. Nephron

d. Nephrotome

∑ **15. The end product of haemoglobin is the;**

a. Allontoin

b. Bilirubin

c. Xanthine

d. Creatinine

∑ **16. All of the following are the plasma proteins synthesize by Liver, except that of; a. Albumin**

b. Prothrombin

c. Glycogen

d. Fibrinogen

∑ **17. Liver is a large organ, making the body weight up to;**

a. 2 — 3 %

b. 3 — 6 %

c. 1 — 2 %

d. 3 — 5 %

∑ **18. The term Glycogenolysis means, the conversion of;**

a. Glucose into lactic acid

b. Glucose into Glycogen

c. Glucose into alcohol

d. Glucose into amino acid

∑ **19. Liver store tke vitamins A, D, E & K, which are the mainly;**

a. Fat soluble

b. Cold water soluble

c. Alcoholic soluble

d. Hot water soluble

∑ **20. As human kidney has less than one percent of total body weight and with each cardiac cycle it receive the bllod of about; a. 50 %**

b. 30 %

c. 20 %

d. 25 %

∑ **21. Creatinine is produced in;**

a. Liver

b. Muscles

c. Kidney

d. Blood

∑

22. All are related to urea cycle, except that of;

a. Citruline

b. Ornithene

c. Arginine

d. Creatinine

∑ **23. Urea leaves the kidney through;**

a. Ureter

b. Urinary bladder

c. Urethra

d. pelvis

∑ **24. Urea is produced by a cyclic process in the liver known as;**

a. Urea or Ornithene cycle

b. Urea or Citruline cycle

c. Urea or Arginine cycle

d. Both a & b

∑ **25. In man the expulsion of urine from the body the urethra is known as; a. Urination**

b. Elimination

c. Micturition

d. Filtration

∑ **26. Each nephron has a mass of blood capillaries which are partially enclosed by the blind ending region of the tubule is called; a. Glomerulus**

b. Bowman's capsule

c. Loop of henle

d. Vasa recta

∑ **27. The inner layer of the Bowman's capsule is made up o un-usual cells called; a. Endothelial cells**

b. Baesment membrane cells

c. Ciliated cells

d. Podocytes

∑ **28. the blood pressure in kidneys is higher that in the other organs this high pressure is maintained because;**

a. The afferent arteriole has a large diameter and efferent arteriole has a smaller diameter

b. Of the foot like process of Podocytes

c. Because of the Bowman's capsule

c. The efferent arreriole has a large diameter than the afferent arteriole

∑ **29. Marine mammal such as whale has a very thick layer of isulating fat called blubber just under the skin, which one of the is not related to the adaptive value of this fat?**

a. Because it is insoluble in water, so does not affect the osmotic balance of the cells

b. As fat is an energy storing compound, so it is utilized by the animal when storage of food

∑

c. Fat has low energy contents as compared to other energy storing compound such as glycogen

d. Fat ha an insulating function and having low heat conductivity

30. Which part of the Nephron maintains the normal pH of human blood?

a. Bowman's capsule

b. Ascending prtion of henle loop

c. Descending portion of henle loop

d. Collecting duct

∑ **31. Which one the following properties of water is the main contributory factor enabling homeotherms to adapt, to a range of environment? a. Water has a high heat of vaporization**

b. Water has high surface tension

c. Water has maximum density at 4 Co

d. It has a low viscocity

∑ **32. Which of the following is a function of the lever?**

a. Regulation of plasma bicarbonate ions

b. Storage of vitamin C

c. Production of plasma albumin

d. Production granulocytes

∑ **33. Which of the following is an endothermic?**

a. Humming birds

b. Bat

c. Fish

d. Birds

∑ **34. Human maintains their high body temperature with in a narrow range of about; a. 36 — 38 oC**

b. 35 — 37 oC

c. 37 — 38 oC

d. 37 — 39 oC

∑ **35. In human being body temperature is regulated by a part of brain; the**

a. Thalamus

b. Hypothalamus

c. Medulla oblongata

d. Cerebellum

∑ **36. Process of reabsorption is the movement of materials from;**

a. Filtrate to Glomerulus

b. Filtrate to blood capillaries

c. Glomerulus to filtrate

d. Pelvis to filtrate

∑ **37. Which of the following chemicals displaces the set point of the hypothalamus? a. Antigen**

∑

b. Antibodies

∑

c. Antibiotics

d. Pyrogen

38. The most common kidney stone is;

a. Calcium stone

b. Oxalate stone

c. Uric acid stone

d. Carbonate stone

∑ **39. The nitrogenous excretory compounds formed in Earth-worm are the;**

a. Urea

b. Ammonia

c. Both a & b

d. Uric acid

∑ **1. The matrix of the bone is composed of;**

a. Calcium phosphate

b. Collagen

c. Chitin

d. Calcium carbonate

∑ **2. Hydrostatic skeleton is pressent in;**

a. E.Worm & Jelly fish

b. Cockroach

∑ **c. Cray fish**

d. Millipedes

∑ **3. The most rigid connective tissues are the;**

a. Tendons

b. Ligaments

c. Cartilage

∑ **d. Bones**

∑ **4. All of the following are related to cranial bones, except that of;**

a. Parietal

b. Occipital

c. Vomer

d. Frontal

∑ **5. The structure formed by the fusion of anterior five pelvic vertebrae is the; a. Axis**

b. Sacrum

c. Atlas

d. Coccyx

∑

∑ **6. Which one of the following posses single occipital condyle?**

a. Fishes & Reptiles

b. Birds & Mammals

c. Birds & Amphibians

d. Reptiles & Birds

7. The antagonistic arrangement of skeletal muscles means the movement of muscles; a. In the same direction

b. Against each other

c. with out friction

d. With out contraction & relaxation

∑ **8. Which one deos not take place during repair of bone?**

a. Chondrocytes formation

b. Hematoma formation

c. Callus formation

d. Bony callus

∑ **9. which one is not correct about the sliding filament model of muscle contraction?**

a. Length of A band is reduced

b. Thick and thin filaments slide over each other

c. Z – lines come lose together

d. The I – band shortens

∑ **10. The fundamental contractile unit of a skeletal muscle is called;**

a. I – band

b. sarcolemma

c. Sarcomeres

d. H – zone

∑ **11. Which one of the following acts as a shock absorber to cushion the tibia and the femur where they come together? a. Central disc**

b. Ligament

c. Cartilage

d. Tendons

∑ **12. A muscle is a muscle;**

a. Bundle

b. Fiber

c. Filament

d. Fibril

∑ **13. The original function, in the first vertebrates, of the skeleton was to provide;**

a. Support for locomotion

b. Minerals

∑

c. blood cells

d. protection from enemies

∑ **14. Which one of the following connects the bone to bone?**

a. Tendon

b. Cartilage

c. Disc

d. ligament

15. The original function is still performed today by bones of the;

a. Jaw

b. Pelvis

c. Skull and rib cage

d. Thigh

∑ **16. Which one of the following is likely to have the strongest leg bones? a. Jockey**

b. Swimmer

c. Golfer

d. Weight lifter

∑ **17. The fundamental, repeating unit of a skeletal myofibril is the;**

a. Motor unit

b. Myosin cross bridge

c. Sarcomere

d. Sarcoplasmic reticulum

∑ **18. According to the now-established sliding- filament model of muscle contraction, the molecules that move o shorten a muscle are; a. Creatine phosphate**

b. Collagen

c. Myosin

d. Actin

∑ **19. Cross bridges, which connect the two molecules of a fibril during a muscle contraction, are made of;**

a. Troponin

b. Tropomyosin

c. Actin

d. Myosin

∑ **20. An oxygen debt develops during;**

a. An aerobic work

b. Aerobic work

c. Sarcoplasmic release

d. Tetanus

∑

∑ **21. The ion that must be present for binding of the cross bridges is;**

a. sodium ion

b. Potassium ion

c. Calcium ion

d. Magnesium ion

∑ **22. The all-or-non phenomenon of muscle contraction refers to a maximum contraction or no contraction of a;**

a. Muscle
b. Muscle fiber
c. Muscle bundle
d. Muscle fibril

∑ 23. An aerobic work becomes continue painful because of an accumulation of; a. Lactic acid
b. Carbon dioxide
c. Acetic acid
d. Calcium ions

∑ 24. An all-out sprint cannot continue for more than about 45 seconds because the muscles;
a. Accumulate acetylcholine on their plasma membranes
b. Accumulate too much Creatine phosphate
c. Run out of glycogen
d. Run out of oxygen

∑ 25. The depression used for articulation of femur is called;
a. Ischium
b. Pubis
c. Ilium
d. Acetabulum

∑ 26. The mammals used on the hoofed tip of the toes are called;
a. Unguligrades
b. Plantigrades
c. Digitigrades
d. Saltatorials

∑ 27. The most prehistoric extinct bipedal vertebrates were the;
a. Lobe finned fishes
b. Amphibians
c. Reptiles
d. Mammals

∑ 28. keel the modified bone of sternum is present in;
a. Dipnoi
b. Reptiles
c. Birds
d. Mammals

∑ 29. The stream-line body structure is present in;
a. Reptiles
b. Fishes
c. Mammals
d. Amphibians

∑ 30. Star fish moves with the help of;

a. Caudal fin
b. Myonemes
c. Tube feet
d. Foot

∑ 31. Which of the following animal show accordion like locomotion? a. Jelly fish
b. Earth-worm
c. Tape-worm
d. Amoeba

∑ 32. In man the contraction of which of the following muscles make the arm straight? a. Triceps Brachii
b. Brachialis
c. Biceps Brachii
d. Brachioradialis

∑ 33. during contraction of muscles the calcium ions released from;
a. Sarcomeres
b. T – tubules
c. Bone marrow
d. Sarcoplasmic reticulum

∑ 34. A grass-hopper moves from place to place when it muscles;
a. Pull it bones
b. Push it bones
c. Push it external plates
d. Pull its external plates

∑ 35. An earth-worm moves from place to place;
a. Peristalic waves of contracions of circular and longitudinal muscles
b. To and fro movements of many tiny parapodia
c. Many small paseudopodia called Setae
d. Rolling movements caused by statocysts

∑ 36. Tiny animals, such as the larvae of Cnidarians, move from place to place chiefly by;
a. Cytoplasmic streaming
b. The beating movement of cilia
c. Contraction of muscle cells
d. Amoeboid movement

∑ 37. The to-fro-movements of cilia and flagella in euglena & paramecium are caused by; a. Sliding microtubules
b. Contracting microfilaments
c. Elongating cell membranes
d. Changes in turgor pressure

∑ 38. Which of the following is mismatched?
a. Slightly moveable joint-vertebrate

b. Hinge joint-Hip

c. Synovial joint-elbow

d. Immovable joint-Sutures in cranium

∑ 39. Which of these is direct source of energy?

a. Adenosine Triphosphate

b. Lactic acid

c. Creatine phosphate

d. Both a & b

∑ 40. When muscles contract;

a. Sarcomeres increases in size

b. Myosin slides past actin

c. The "H-zone" disappears

d. Calcium is taken up calcium storage sites

∑ 41. The chest cage of man is supported by number of ribs;

a. Twenty four only

b. Twelve pairs

c. Ten pairs

d. Both a & b

∑ 42. during bone fracture the mass of clotted blood is called;

a. Remodeling

b. Hematoma

c. reduction

d. Bony callus

∑ 1. Viral genes are made of

a. RNA only

b. DNA only

c. Either DNA or RNA

d. Either protein or nucleic acid

∑ 2. A virion is a

a. Virus

b. Viral ribosome

∑ c. Viral lysosomes

d. Viral gene

∑ 3. An isolated virus is not considered living since it

a. Separates into tw inerts part

b. Cannot metabolize

c. Rapidly loses its genome

d. Is coated with air-tight , chemically inert sheild

∑ 4. Most RNA viruses carry a gene for an enzyme that uses viral RNA as template in the synthesis of more viral RNA this enzyme is a. Reverse transcriptase

b. RNA polymerase

∑ **c. Viral nuclease**

d. RNA replicase

∑ **5. The enzymes involved in viral replication are synthesized**

a. On the viral ribosome

b. By the host cell

c. On the interior surface of the viral membrane

d. On the interior surface of the viral coat

∑ **6. Much of the research on gene expression has been done with E.coli, which inhibits the human intestine.This organism is a a. Plasmid**

b. Virus

c. Bacterium

d. Protozoan

∑ **7. In general bacterial genes are regulated at the time of**

a. Transcription

b. Post-transcription

c. Translation

d. Cojugation

∑ **8. When DNA is exchanged via eytoplasmic bridges between two bacteria the process is called a. Transduction**

b. Conjugation

c. Transformation

d. Recombination

∑ **9. When a bacteriophage in its lytic phase carries some of the bacterium's partially digested chromosome with it to another host cell the process is called a. Conjugation**

b. Transformation

c. Transduction

d. Restricted transduction

∑ **10. A bacteriophage with a lysogenic cycle must have genes that are**

a. Made of RNA

b. Made of double-stranded DNA

c. Made of single-stranded RNA or DNA

d. With in a circular nucleic acid molecule

∑ **11. which of the following fungus is used to give the flavour , aroma and Characteristics colour to some cheese? a. Yeast**

b. Ergot fungi

c. Aspergillus

d. Penicillium

∑ **12. According to mode respiration which one of the following group of bacteria can grow either in the presence or absence of oxygen? a. Facultativebacteria (E.coli)**

b. Microaeerophilic (campylobacter)

c. Pseudomonas

d.Spirochete

∑ 13. which one is true for Pox-viruses?

a. RNA-enveloped

b. DNA-non enveloped

c. DNA-enveloped

d. DNA-naked virion

∑ 14. A disease virus in which nerves are damaged is the

a. Yellow fever

b. Polio

c. Measles

d. Xerophthalmia

∑ 15. In some bacteria when division ocurrs in random plane it will produce an Arrangement called

a. Streptococcus

b. sarcina

c. Diplococcus

d. Staphylococuus

∑ 16. Gram positive bacteria are usually

a. Cocci

b. Bacilli

c. Stained pink

d. Spirochete

∑ 17. A viral disease in which brain of the host is affected is the

a. Sleeping sickness

b. Rabies

c. Pellagra

d. Typhoid

∑ 18. Mumps and measles viruses belong to group paramyxo-viruses which are the

a. RNA enveloped viruses

b. DNA naked viruses

c. RNA non-enveloped

d. DNA enveloped viruses

∑ 19. There are about known species of bacteria that causes the diseases in man a. 250

b. 150

c. 200

d. 300

∑ 20. Morphologically the tobacco mosaic virus is the

a. Round shape

b. Tadpole like

c. Cubical shape

d. Rod shape

∑ **21. The flavour,all of the following is due to bacterial activity, except that of**

a. Butter milk

b. Yogurt

c.Ice crem

d. Cheese

∑ **22. A scientist who established principles of immunity in "Anthrax &Rbies" was the**

a. Leeuwenhoek

b.Pasteur

c.Koch

d.Jenner

∑ **23. The poison, produced by bacteria during infection in host is called**

a. Toxins

b.Antitoxins

c. Toxoids

d.Afflotoxins

∑ **24. All of the following are antibiotics, except that of**

a. Penicillin

b. Streptomycin

c. Riboflavin

d. Terramycin

∑ **25. Bacteria ranges in size, whereas, the staphylococcus&streptococcus are in diameter a. 0.75 to 1.25 m**

b. 1.1 to 1.50 m

c. 2.0 to 6.0 m

d. 0.75 to 1.75 m

∑ **26. Which one is true for periplasmic space ,in different groups of bacteria**

a. Present in all gram -negative bacteria

b. Present in all gram positive bacteraia

c. Present in few gram negative bacteria

d. Present in all gram positive&few gram negative bacteria

∑ **27. The amount of lipid in outer noundry of gtam positive bacteria is about a. 1-4 %**

b. 11-12%

∑

c. 8-11%

d. 20-60%

28, Which one of the following antibiotics &related compounds cause permanent discoloration of teeth in young children a. Tetracyclin

b. Terramycin

c. Streptomycin

d. Penicillin

∑ **29, Antibiotics are synthesized by certain organisms such as**

a. Penicillium

b. Actinomycetes

c. Both a%b

d. Oscilletoria

∑ **30. Ecological role of fungi as decomposers is parallled only by**

a. Virus

b. Bacteria

c. Detrius

d.Nematodes

∑ **31. Are very good bio-indicator of air quality as they are very sensitive to pollution a. Bacteria**

b. Mycorrhizae

c. Lichens

d. Water blooms

∑ **32. Induction is a process in which a viral DNA**

a. Enters into bacterial cell and attached with bacterial DNA

b.Detached from bacterial DNA

c. Destroy the bacterial DNA

d. Multiply with bacterial DNA

∑ **1. The idea of inheritance of acquired character was proposed by;**

a. Linnaeus

b. Lamarck

c. Darwin

d. Wallace

∑ **2. From South America Darwin collected number of types of Finches;**

a. 20

b. 11

∑ **c. 15**

d. 13

∑ **3. Which one of the following mammals live only in America?**

a. Armadillos

b. Elephant

c. Opossum

d. Echidna

4. Which one of the following Island is present near the coastline of South America? a. Cape verd

b. Finland

c. Galapagos

d. Iceland

∑ **5. The oldest known fossils are of;**

a. Pisces

b. Prokaryotes

c. Protozoans

∑ **d. Algae**

∑ **6. Archaeobacteria can tolerate temperature up to;**

a. 100o C

b. 150 oC

c. 110 oC

d. 120 oC

∑ **7. Most fossils are found in;**

a. Sedimentary rocks

b. Ingeous rock

c. Black soil

d. Lava flowa

∑ **8. Charles Darwin's book, On the origin of species by Means of Natural Selection, was first published in; a. 1779**

b. 1831

c. 1859

d. 1959

∑ **9. The primary mission of the "voyage of H.M.S.beagle" (1831 — 1836) was to;**

a. Carry arms to the new world

b. Chart the S.American coastline

c. Find out how many species there were in the world

d. Disprove Lamarck's theory of inheritance

10. The wing of bird and the forelegs of a horse are;

a. Vestigial structures

b. Analogous structures

c. Phylogenetic structures

d. Homologous structures

∑ **11. The struggle for existence is a consequence of;**

a. Each organism leaving more offspring than needed to replace it self

b. The inevitable difficulty of coping with climatic conditions

c. Territories and dominance hierarchies

∑

d. Innate competitive tendencies

12. The idea of common descent was first suggested to Darwin by his observations on;

a. Comparative embryology

b. Blood groups of birds

c. Geographical distribution of species

d. Human pedigrees

∑ **13. Fossil record shows that the earliest known vertebrate fossils were of;**

a. Mammals

b. Fishes

c. Amphibians

d. Reptiles

∑ **14. The structures which have common origin but different function is;**

a. Vestigial structure

b. Analogous structure

c. Adaptive structure

d. Homologous structure

∑ **15. In terrestrial vertebrates, the gills are modified to form;**

a. Lungs

b. Eustachian tube

c. Ear muscles

d. Larynx

∑ **16. A respiratory protein found in all aerobic species is the;**

a. Cytochromes-c

b. Cytochromes-b

c. Cytochromes-a

d. Cytochromes-a3

∑ **17. which one of the following cannot change allelic frequency?**

a. Migration

b. Genetic drift

c. Random mating

d. Selectiion

∑ **18. The wings of a bird and the wings of an insect are;**

a. Analogous structures

b. Phylogenetic structures

c. Homologous structures

d. Vestigial structures

∑ **19. The best test of the relatedness of two species is in the similarity of their;**

a. Anatomy

b. Courtship behaviour

∑

c. Development

d. DNA & Protein

20. The unit of evolution is now known to be the;

a. Individual

b. Population

c. Family

d. Species

∑ **21. The total collection of genes, at any one time, in a unit of evolution is called the; a. Genotype**

b. Phenotype

c. Gene pool

d. Multiple-allelic group

∑ **22. A potential danger to a population that has been greatly reduced in number is the;**

a. Loss of genetic variability

b. Tendency towards assertive mating

c. Reduced gene flow

d. Hardy-Weinberg disequlibrium

∑ **23. The human blood groups — A, B, AB, and O — are an example of a;**

a. Dimorphism

b. Mutation

c. Gradeint of diploidy

d. Allelomorphism

∑ **24. All alleles originate from;**

a. Crossing over

b. Mutations

c. Gene flow

d. Non-disjunction

∑ **25. A beneficial allele increases more rapidly in frequency, if it is;**

a. Dominant

b. Recessive

c. Recently mutated

d. Rare

∑ **26. Biologist who study the sequence of organisms in the fossil record are;**

a. Taxonomists

b. Phycologists

c. Paleobiologists

d. Mycologists

∑ **27. The richest source of fossils is;**

∑

a. Igneous rock

b. Granite

c. Basalt

d. Sedimentary rock

28. How many possible phenotypes are there for the "ABO" blood groups? a. 4

b. 6

c. 8

d. 16

∑ **29. The genotypic expression seen in a person of blood group "AB" is called;**

a. Dominant-recessive

b. Incomplete dominance

c. Co-dominance

d. Over-dominance

∑ **30. The pelvis and the leg bones of a snake are;**

a. Homologous structures

b. Vestigial structures

c. Adaptive structures

d. Analogous structures

∑ **31. A child with blood-group genotype IA / IB is born of a woman with genotype IB / IB , the father could not be a man of genotype; a. IA / IB**

b. IA / IA

c. IB / IB

d. IA / i

∑ **32. The locus of gene that controls the "AOB" blood type is present on chromosome number; a. 11**

b. 21

c. 7

d. 9

∑ **33. The pattern of sex determination found in protenor hug is;**

a. XO — XX

b. WZ — ZZ

c. Honey bee method

d. XY — XX

∑ **34. In monochromacy which types of light receiving cone cells are absent?**

a. Blue — Green

b. Red — Blue

c. Red — Green

d. Red — Yellow

∑

∑ **35. Which one is not correct for Drosophila melanogaster?**

a. XXY — is fertile female

b. XO — fertile male

c. XX — is female

d. XY — male

36. Which one is not correct for recessive sex-linked inheritance?

a. Gene for eye colour is present on "X" sex chromosomes

b. Y — chromosome is inert

c. Female can be homozygous or heterozygous

d. Sex – linked traits are more common in females as compared to males

∑ **37. The genes for blue Opsin protein are present on autosomal chromosomes number; a. 07**

b. 11

c. 09

d. 21

∑ **38. A woman receives her " X " chromosomes from;**

a. Her mother only

b. Both her mother & her father

c. Her father only

d. Extra-nuclear DNA in her mother's egg

∑ **39. When a mutation is limited to the substitution of one nucleotide pair for another, it is called a;**

a. Point mutation

b. Transiocation

c. Base inversion

d. Sugar-phosphate deletion

∑ **40. The creation of mutations is called;**

a. Evolution

b. Radiation

c. Mutagenesis

d. Saltatory changes

∑ **41. The father of a girl is hemophilic but mother is normal.she may be;**

a. hemophilic

b. Carrier

c. Normal

d. None of these

∑ **42. Genes not located within the nucleus are almost always located in the; a. Cytosol**

∑

b. Cell membrane

c. Cytoskeleton

d. Organelles

∑ **key**

1.b

2.d

3.a
4.c
5.b
6.d
7.a
8.c
9.b
10.d
11.a
12.c
13.b
14.d
15.b
16.a
17.c
18.a
19.d
20.b
21.c
22.a
23.d
24.b
25.a
26.c
27.d
28.a
29.c
30.b
31.b
32.d
33.a
34.c
35.b
36.d
37.a
38.b
39.a
40.c
41.b
42.d

∑ **1. which of the following plants is rich in atropine drug**

a. datura

b. red pepper

c. petunia

d. nicotiana tobacum

∑ 2. how many carbon atoms are there in a molecule of Ribulose biphospahte? a. three

b. four

∑ c. five

d. six

∑ 3. which one of the following is an ornamental plant?

a. physalis

b. melangena

c. atropa

d. petunia

4. plant donot store carbohydrates as glucose because it is

a. attracts insect herbivores

b. dissolves in water thereby altering the osmotic balance

c. is an unstable molecule

d. would replace ribose in DNA replication

5. which of the following organisms are involed in the spreading of cholera and hepatitis? a. house fly

b. mosquito

c. tse tse

d. locust

6. which one is not true for grade radiate?

a. radially symmetry

b. diploblastic

c. coelomate

∑ d. body with single opening

7. which one of the following round worm is cosmopolitan?

a. hook worm

b. pin worm

c. thread worm

d. fillaria

8. taenia is an endoparasite of human cattle and pig that completes its life cycle in two hosts the intermediate host is the a. snail

b.sheep & man

c. sheep

d. pig & cattle

∑ 9. which one of the following groups of animals are acoclomste?

a. nematode

b. flat worms

c. cnidarians

d. aschelminthes

10. the genus rabditis contains “enterobius vermicularis” which is commonly known as a. pin worm

b. thread worm

c. hook worm

d. round worm

11. coelom is cavity present b/w body wall & alimentry canal and is lined by a. ectoderm

b. endoderm

c. mesoderm

d. choanoderm

12. proglottids are related to which of the fpllowing animals? a. fasiola

b. schistosoma

c. dugesia

d. taenia

13. protandrous mode of sexual is found in

a. aurelia

b. sponges

c. hydra

d. obelia

14. n which of the following flat worms the digestive system is absent?

a. tape worms

b. liver fluke

c. hydra

d. blood fluke

15. the name cnidaria has been given to this group of animals due to the presence of special cells called

a. nematocysts

b. cnidocytes

c. pinachocytes

d. choanocytes

16. in which group of animal phyla alternation of generation is present a. coelenterate

b. nematodes

c. aschelminthes

d. parazoa

17. pseudocoelom of round worms consists of a number of vacuolated cells filled with a protein rich fluid that devolpes high a. osmotic pressure

b. partial pressure

c. hydrostatic pressure

d. diffusion pressure

18. many colonial coelenterates such as “Corals” produce a hard exoskeleton composed of a. sodium carbonate

b. calcium carbonate

c. calcium phosphate

d. silicon dioxide

19. in flat worms the excretory system consists of branching tubes ending in bulb like cells called a. glomerulus

b. nephrostome

c. flame cells

d. nephridia

20. in multicellular organisms the integumentary and nervous system develop from a. mesoderm

b. archenteron

c. endoderm

d. ectoderm

21. in sponges the inner body layer is made of special flagellated collar cells called a. pinachocytes

b. choanocytes

c. gelatinous mesenchyma

d. amoeboid cells

22. acyclostoma dueodenela a parasite of human small intestine is commonly known as a. hook worm

b. pin worm

c. thread worm

d. guinae worm

23. which one of the following parasitic flat worm lives in the bile duct of its host a. taenia worm

b. dugesia

c. fasiola hepatica

d. tape worm

24. in asymmetrical parazoa the skeleton is in the form of variously shaped needle like structure called

a. calcareous shell

b. spicules

c. siliceous shell

d. keratinized shell

25. in hydra alternation of generation is absent and it exist only in

a. medusae form

b. conozoid form

c. gastrozoid form

d. polyps form

26. the stony mass of living coelenterate is called

a. corals

b. coral leef

c. polyps

d. medrepora

27. the bark which of the following plants are used in tanning industry

a. bauhinia verigata

b. tamarindus indica

c. cassia senna

d. both a & b

∑ 1. i\In ireland people are completely dependent on

a. potatoes

b.tomatoes

c. tobacco

d. red pepper

∑ 2. Capsium anum is the scientific name of

a. datura

b. tobacco

c.red pepper

d. black pepper

∑ 3. which one of the following is the favourite home garden vegetable that was once believed to be poisoned

a. physalis

b. lipersicum esculentum

c. soalanum meelangenad, atropa belladona

∑ 4. photosynthetic autotrophs get their energy from

a. heat

b. inorganic molecules

∑ c. organic molecules

d. light

∑ 5. in 1930 van neil hypothesised that oxygen atoms in the oxygen gas released by plants come from

a.carbon dioxide

b. water

c. glucose

d. chlorophyll

∑ 6. in plant cell .the dark reactions of photosyntheses takes place in

a. stroma

b. thylakoids

c.granum

d. lamellae

∑ **7. which of the following colurs of light work best for photosynthesis**

a. green&blue

b. red%green

c. blue&red

d. violet&oraange

∑ **8. a description of wavelength absorbed by a pigment is called its**

a. action apectrum

b. anteena cells

c. reaction center

d. absorption spectrum

∑ **9. production of NADPH in a chloroplast takes place during**

a. dark reaction

b. non-cyclic photophosphyrlation

c. cyclic photophosphyrlation

d. chemiosis

∑ **10. which of thr following plant leaves are used for curing of ring worm skin disease a. cassia alata**

b. cassia fistula

c. bauhinia vegeteriadd. tamarindus indica

∑ **11. which one of the following process releases a carbon dioxide molecule a. glycolysis**

b. lactic acid fermentation

c. alcoholic fermentation

d. hydrolysis of glycoen

∑ **12. when yeast is poducing wine, which of the following is not formed**

a. pyruvic acid

b. acetyl co enzyme-A

c. ethanol

d. carbon dioxide

∑ **13. in the conversion of pyruvic acid to acetyl co eenzyme -A, pyruvic acid is a. oxidised**

b. isomerized

c. broken into one carbon fragment

d. reduced

∑ **14. how many carbon atomsare in an oxolacetate molecule, ehich joins with an acetyl group during step -1 in krebs cycle**

a. 2

b.3

c.4

d.6

∑ **15. in ETC ,the final acceptor of electron is**

a. cytochrome -b

b. cytochrome a3

c. oxygen

16. the atom within each cytochrome molecule that actually accepts and releases electrons isa. carbon

b. iron

c. zink

d. oxygen

17. how many carbon atoms are in citric acid molecule?

a. four

b. six

c. three

d. five

18. in aerobic cellular respiration most of the ATP is synthesized during

a. electron transport chain

b. glycolysis

c. citric acid cycle

d. oxidation of pyruvate

19. in eukaryotic cell the krebs citric acid cycle and terminal electron transport take placea. with in the nucleus

b. on rough ER

c. in the cytoplasm

d. with in the mitochondria

20. the inner membrane of mitochondria is very selective about what it normally allows to leave the organelle.one molecule that regularly passes out of a mitochondria is a. citric acid

b. ATP

c. pyruvic acid

d. glucose

21. the function of the mitochondrial cristac is to

a. prevent escape O2 gas

b. store co-enzyme-A

c. increase the surface area of the inner membrane

d. increase the avalibility of phospholipids

22. a source of protons for the protons for the proton gradient with in chloroplast isa. water

b. chlorophyll

c. CH2O

d. phospholipids within thylakoids membranes

23. the molecule in the Calvin-Benson cycle that combines with carbon dioxide is

a. glyceraldehyde phosphate

b. ribulose biphosphate

c. phosphoenolpyruvate

d. 1, 3 biphosphoglycerate

24. how many carbon atoms are there in a molecule of glyceraldehyde phosphatea. four

b. five

c. three

d. six

25. the source of hydrogen atom for the synthesis of glucose is

a. H2O

b. FADH2

c. n(CH2O)

d. NADPH

26. an edible fruit, the husk tomato obtained from the plant family the

a. poaceae

b. solanaceae

c. ceasalpiniaceae

d. cassia family

∑ Biology Mcqs For Lecturer & Subject Specialist Exams

∑ Biology Mcqs For Lecturer & Subject Specialist Exams

∑ 1. What is the main purpose of white blood corpuscles?

A. To carry nutrients

B. To combat infection

C. To carry oxygenD. To give strength

Answer is = B

2. Total volume of blood in a normal human being is

A. 5 – 6 liters

B. 3 – 4 liters

C. 8 – 10 liters

D. 10 – 12 liters

Answer is = A

3. Red blood corpuscles are formed in the

A. Liver

B. Bone marrow

C. KidneysD. Heart

Answer is = B

4. Blood does not coagulate inside the body to the presence of

A. Fi brin

B. Heparin

C. HaemoglobinD. Plasma

Answer is = B
5. Lungs are situated in the
A. Abdominal cavity
B. Buccal cavity
C. Pericardinal cavity
D. Thoracic cavity
Answer is = D
6. How many numbers of bones in the human body of an adult ?
A. 210
B. 206
C. 250
D. 450
Answer is = B
7. The pancreas secretes
A. Insulin
B. Vatiman A
C. Bile juiceD. None
Answer is = A
8. The seat of memory in the human brain is located in the
A. Medulla oblongata
B. Cerebrum
C. Cortex
D. Cerebellum
Answer is = C
9. Tibia is a bone found in the
A. Arm
B. Skull
C. Leg
D. Face
Answer is = C
10. The main function of the kidney is
A. To control blood pressure
B. To control body temperature
C. To remove waste products from the body
D. To help in digestion of food
Answer is = C
11. The strongest muscle in the human body is found in
A. hands
B. neck
C. buttocks
D. legsAnswer is = C 12. What is gene?

A. Sleep inducing drug
B. Unit of heredity
C. A type of body cell
D. A kind of vitamin
Answer is = B
13. The function of haemoglobin is
A. To transport oxygen
B. Destruction of bacteriaC. Prevention of anaemia
D. Utilization of energy
Answer is = A
14. A vegetable containing sulphur is
A. Potato
B. Cabbage
C. Brinjal
D. Pumpkin
Answer is = B
15. Enzymes help in
A. Respiration
B. Digestion of food
C. Immune system
D. Reproduction
Answer is = B
16. Ptyalin is an enzyme produced in the
A. Salivary glands
B. Pituitary gland
C. Thyroid glands
D. Pancreas
Answer is = A
17. Heightened emotion is caused by
A. Pituitary gland
B. Thyroid glands
C. Adrenal glands
D. Salivary glands
Answer is = C
18. The shortest bone in the human body is
A. Vertebrae
B. Stapes
C. Phalages
D. Metacarpals
Answer is = B
19. A balanced diet contains

A. Animals protein
B. Macro and micro nutrients
C. Food nutrients for growth and maintenance
D. Butter and ghee
Answer is = C
20. Wisdom teeth normally grow between the age of
A. 34-40
B. 17-30
C. 45-55
D. 10-17
Answer is = A
21. ‘Dossier’ means
A. the do of medicine
B. the actual things
C. relevant paper
D. unarranged papers
Answer is = C
22. Lack of————causes diabetes
A. Sugar
B. Insulin
C. Calcium
D. Vitamins
Answer is = B
23. Biopsy is done on
A. tissue taken from a dead body
B. tissue taken from living body
C. blood from veins
D. blood from arties
Answer is = B
24. Triple antigen vaccine is given children to protect them against
A. polio
B. whooping cough
C. tuberculosis
D. contagious diseases
Answer is = B
25. A man weighing 96 Kg consists of approximately ————-liters of water
A. 50 litters
B. 66.5 litters
C. 82 litters
D. 42 litters
Answer is = B

26. What does blood consists of?
60 % plasma, 40 % crop
65 % plasma, 40 % crop
62 % plasma, 40 % crop
68% plasma, 45 % crop
Answer is = A

MCQ Biology – Learning through MCQs

Biology Multiple Choice Questions and Answers for Different Competitive Exams

∑ -

1. Breeding for disease resistance requires

a) a good source of resistance
b) Planned hybridisation
c) Diseases test
d) all of these

2. Polyploidy is induced through

a) Irradiation
b) Mutagenic chemicals
c) Ethylene
d) Colchicine

3. Heterosis is

a) Appearance of spontaneous mutations
b) Induction of mutations
c) Mixture of two or more traits
d) Superiority of hybrids over their parents.

4. The quickest method of plant breeding is

a) introduction
b) Selection
c) Hybridisation
d) Mutation Breeding

5. The new varieties of plants are produced by

a) Introduction and mutation
b) Selection and hybridisation
c) Mutation and Selection
d) Selection and Introduction

6. Pure line breed refers to

a) heterozygosity only
b) homozygosity only
c) homozygosity and self assortment
d) heterozygosity and linkage

7. A scientist wants to study the viral effects on plants. Which of the following part of the plant should be excluded?

a) pith

b) shoot apex

c) phloem

d) cortex

8. Somatic hybridisation is achieved through

a) Grafting

b) Conjugation

c) Protoplast fusion

d) Recombinant DNA technology

9. Bagging is done to a) Avoid cross pollination

b) Avoid self pollination

c) Achieve desired pollination

d) Prevent contamination from foreign pollen

10. A technique of micropropagation is

a) Multiple root production

b) Somatic embryogenesis

c) Growth of micro organisms on culture medium

d) Multiple shoot production and embryo rescue

Answers

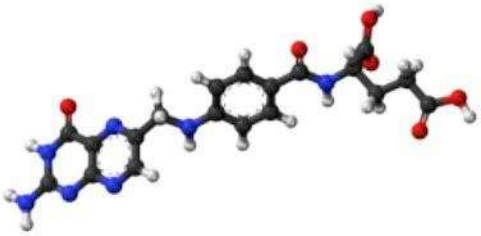
1. d) all of these
2. d) Colchicine
3. d) Superiority of hybrids over their parents.
4. d) Mutation Breeding
5. b) Selection and hybridisation
6. b) homozygosity only
7. b) shoot apex
8. c) Protoplast fusion
9. d) Prevent contamination from foreign pollen
10. b) Somatic embryogenesis

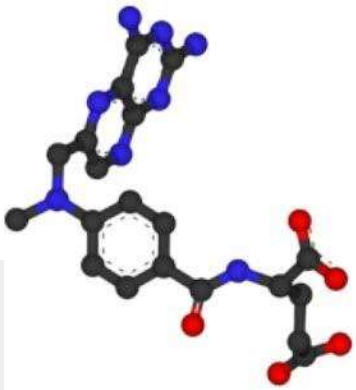
Multiple Choice Questions onBiochemistry

1. Which of the following mineral element facilitates insulin binding to cell receptor site?

a) Zinc
b) Selenium
c) Copper
d) Chromium

2. Which of the following is a folate analog?





a) Carnosine
b) Aniserine
c) Azaserine
d) Methotrexate

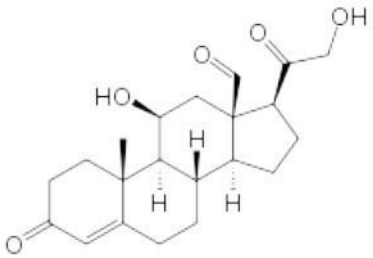
3. ATP concentration is maintained relatively constant during muscle contraction by

a) Increasing the metabolic activity
b) The action of creatine phosphokinase
c) The action of adenylate kinase
d) all of the above

4. The cone of retina

a) Are responsible for colour vision
b) Are much more numerous than rods
c) Have red, blue and green light- sensitive pigment that differ because of small difference in the retinal prosthetic group
d) Do not use transducin in signal transduction

5. The C 21 steroid hormones include



a) Vitamin D3
b) Estradiol
c) Testosterone
d) Aldosterone

6. Which of the following oxidoreductases form hydrogen peroxide as one of its products?

a) Oxidases
b) Peroxidases
c) Dehydrogenases
d) Oxygenases

7. The major protein responsible for the storage of iron

a) Ferredoxin
b) Ferretin
c) Hemosiderine
d) Transferine

8. Which of the following is an excitatory neurotransmitter?

a) Glutamate
b) GABA

c) Glycine
d) Taurine

9. Which of the following is not involved in enzyme regulation?

a) Covalent modification
b) Competitive inhibition
c) Suicide inhibition
d) Allosteric activation

10. The preferred substrate for hexokinase is

a) Glucose
b) Fructose
c) Glucose and fructose are equally preferred
d) None of these

Answers

1. d) Chromium
2. d) Methotrexate
3. d) all of the above
4. a) Are responsible for colour vision
5. d) Aldosterone
6. a) Oxidases
7. b) Ferretin
8. a) Glutamate
9. c) Suicide inhibition
10. a) Glucose

MCQ onBiochemistry – Amino acids

1.Aminoacids are

a) building blocks of carbohydrates

b) building blocks of nucleic acids

c) building blocks of lipids

d) building blocks of proteins

2. Amino acids has

a) both amino group and carboxyl group

b) both amino group and keto group

c) amino group only

d) carboxyl group only

3. The simplest amino acid is

a) Proline

b) methionine

c) glycine

d) serine

4. Which of the following amino acid is a 'α-helix terminator'

a) tryptophan

b) phenyl alnine

c) tyrosine

d) proline

5. The first amino acid in a polypeptide chain is a)

Serine

b) Valine

c) Alanine

d) Methionine

6. Which of the following amino acid has buffering capacity a)

Tryptophan

b) cysteine

c) histidine

d) arginine

7. Which of the following is an α imino acid

a) serene

b) threonine

c) valine

d) proline

8. The naturally occurring form of amino acid in proteins

a) L-amino acids only

b) D-amino acids only

c) both L and D amino acids

d) none of these

9. Sulphur containing amino acids are

a) Cysteine and methionine

b) Methionine and threonine

c) Cysteine and threonine

d) Cysteine and serine

10. Aromatic amino acids include

a) Phenylalanine, tyrosine and tryptophan

b) Phenylalanine, serine and tryptophan

c) Threonine, tyrosine and tryptophan

d) Asparagine, tyrosine and tryptophan

11. Positively charged basic amino acids are

a) Lysine and arginine

b) Lysine and asparagine

c) Glutamine and arginine

d) Lysine and glutamine

12. Acidic amino acids include

a) Arginine and glutamate

b) Aspartate and asparagine

c) Aspartate and lysine

d) Aspartate and glutamate

13. Amino acids with hydroxyl groups are

a) serine and alanine

b) Alanine and valine

c) serine and threonine

d) Valine and isoleucine

14. The 21st amino acid is

a) hydroxy lysine

b) hydroxyl proline

c) selenocysteine

d) citrulline

15. Absorbance at 280nm exhibited by protein is due to

a) aliphatic amino acids

b) all amino acids

c) Non-polar amino acids

d) aromatic amino acids

Answers

1-d	**2-a**	**3-c**	**4-d**	**5-d**
6-c	**7-d**	**8-a**	**9-a**	**10-a**

11-a	**12-d**	**13-c**	**14-c**	**15-d**

MCQ onBiochemistry – Nucleic acids (RNA)

1. RNA is the genetic material in

a) Viruses only

b) In some viruses and some prokaryotes

c) In some viruses and some prokaryotes and rarely in eukaryotes

d) Only in some viruses

2. RNA is

a) Single stranded

b) Double stranded

c) Triple stranded

d) Both a and b**3. The sugar in RNA is**

a) Deoxyribose

b) Ribose

c) Hexose

d) Fructose

4. Nucleotides in RNA are joined by

a) 3’5’ phosphodiester bond

b) 3’4’ phosphodiester bond

c) 3’2’ phosphodiester bond

d) 3’6’ phosphodiester bond

5. Thymine in DNA is replaced by

a) Guanine in RNA

b) Adenine in RNA

c) Cytosine in RNA

d) Uracil in RNA

6. The most abundant type of RNA in the cell is

a) rRNA

b) mRNA

c) tRNA

d) hnRNA

7. Which of the following RNA serves as adaptor molecule during protein synthesis

a) rRNA

b) mRNA

c) tRNA

d) hnRNA

8. rRNA is synthesised in

a) nucleus

b) Cytoplasm

c) RER

d) Nucleolus

9. cDNA is

a) complementary to mRNA

b) complementary to rRNA

c) complementary to tRNA

d) complementary to hnRNA

10. Amino acids are attached to the

a) acceptor arm of tRNA

b) anti-codon arm of tRNA

c) codon arm of tRNA

d) none of these

11. Ribozymes are

a) enzymes with catalytic activity

b) RNAs with catalytic activity

c) proteins with catalytic activity

d) nucleic acids with catalytic activity

12. RNA is primarily seen in

a) nucleus

b) Cytoplasm

c) RER

d) SER

13. Ribose sugar in RNA is

a) D-ribose

b) L-ribose

c) Both L and D form

d) None of these

14. Which of the virus has double stranded RNA as genetic material?

a) Tobacco mosaic virus

b) Influenza virus

c) Rous Sarcoma virus

d) Reoviruses

15. Ribosomes are composed of

a) DNA and RNA

b) RNA and proteins

c) DNA and Proteins

d) RNA only

Answers:

1-d	**2-a**	**3-b**	**4-a**	**5-d**
6-a	**7-c**	**8-d**	**9-a**	**10-a**
11-b	**12-b**	**13-a**	**14-d**	**15-b**

1. Genetic code consists of
2 letters
3 letters
4 letters
5 letters
2. The initiator AUG in prokaryotes codes for
Valine
Methionine
Phenyl alanine
Formyl methionine
3. Genetic code is not
overlapping
degenerate
universal
with commas
4. UAA is known as
Opal
Amber
Ochre
None of these
5. Amber is
AAA
GGG
UAG
UGA
6. Which one of the following is known as Opal
AUG
GUG
UAG
UGA
7. If methionine comes as an intermediate amino acid in protein synthesis, the codon which codes it is

AUG
GUG
UUU
AGG
8. Glycine is coded by
GGG
CCC
AAA
UAA
9. Which one of the following is not an mRNA codon
UUG
UCU
TAG
UUU
10. Wobble hypothesis was proposed by
Watson
Crick
Nirenberg
Holley