BIOLOGY

Sample Paper-1

GUJCET

Time : 1:00 Hr.] **STD : XII** **[Total Marks : 40**

1. What is present on stems of woody plants which help in transpiration

   (A) Lenticels (B) Stomata

   (C) Cutical (D) Glands

2. Name mineral required for enzyme activation and Auxin synthesis

   (A) Ca (B) Zn

   (C) MO (D) Mn

3. Serine diffused out of mitochondria enters peroxisone is converted to _____ .

   (A) Glycerate (B) Malate

   (C) Ribalose (D) Glyoxylate

4. Autotrophic nutrition shows two alternative forms such as photosynthetic and _____ nutrition.

   (A) Parasitic (B) Symbiotic

   (C) Saprophytic (D) Chemosynthetic

5. Vitamin E constitutes _____ .

   (A) Retional (B) Thiamine

   (C) Tocoferol (D) Riboflavin

6. Deficiency of pyridoxin causes _____ .

   (A) Dermatitis (B) Marasmas

   (C) Pellagra (D) Beriber :

7. State type of teeth found in human :

   (A) Crodont (B) Heterodent

   (C) Poly Phydont (D) Diphyodont

8. Gastric juice in children contain _____ .

   (A) Renin (B) Cassin

   (C) Amylopsin (D) Frypsin

9. The outer covering of lung is attached with wall of :

(A) Sternum (B) Vertebral column

(C) Thoracic Cavity (D) Ribs

10. Twelve pairs of which muscles occurs between two layers of dorsal diaphropm.

(A) Striated (B) Unitriated

(C) Alary Muscles (D) Cardiac

11. Cellular component of fluid is called _____ .

(A) haemolymph (B) haemocytes

(C) haemocgel (D) haemoglobin

12. _____ appears slightly granular.

(A) Renal pelvis (B) Renal cortex

(C) Renal medulla (D) Renal tubes

13. There are four curvatures in the entire restehral column which provide _____ for upright movement.

(A) Flexibility and Elasticity (B) Flexibility and Foomnels

(C) Flexibility and Rigidity (D) Flexibility and Stoeyoth

14. Function of Jemporal lobe is _____ .

(A) Recall of audio visual (B) Bilateral visual centre

(C) Centres for vision (D) Centre related to movement of lips, arms etc.

15. _____ Absorbsh stray light,

(A) Cones Cells (B) Cornea

(C) Choroid (D) Cilliary Body

16. There is _____ medium in Ampulla.

(A) Jelly libe (B) Gel libe

(C) Liquid (D) Semiliquid

17. Due to what activity of osteoclast in bone increases.

(A) Epinephrine (B) parathornone

(C) thyroid (D) calcitonic

18. G-protien activates what ?

(A) Adenglate cyclase (B) Adrenalin

(C) Antidiuretic (D) Aldosterone

19. The nuclei are arraged _____ in embryo sac.

(A) Centre (B) Corner over

(C) Peripherally down (D) All of these

20. Phyiologically growth is an outcome of :

(A) Metabolism (B) Cell divison

(C) Increase in cell size (D) Increase in weight

21. Which type of carvature occurs during growth of leaf and stem tendrils.

(A) Spiral (B) Autonomous

(C) Curvature (D) Spoiral rotary

22. Maintainiy and increasing the mobility of sperms occars due to secretion from :

(A) Prostrate gland (B) Seminal vericle

(C) Vas deferous (D) Bulbo-urethal gland

23. Fluid within blastocyst is formed by call of

(A) Blasfula (B) Embryo

(C) Trophoblalt (D) Zena pellacid

24. Secretions of osteoblasts and chondrioblast have which type of growth :

(A) Auzentic (B) Accrestsonary

(C) Mulplicative (D) Cellular

25. With the increase in age secretion of what reduces to almost one half.

(A) HGH (B) GH

(C) GSH (D) None

26. Unit formed through the interations various population occupying a given habitat is called :

(A) Cemmunity (B) Ecosystem

(C) Population (D) Biome

27. Micro climate is also generated around a :

(A) Sea (B) River

(C) Pond (D) Lake

28. In which zone light reaches upto the bottom

(A) benthic (B) limnetic

(C) littoral (D) profoundal

29. Plants which complete their life cycle in short favourable season and survive in dormant state as seeds are called :

(A) epiphytes (B) sciophytes

(C) ephemeral (D) heliophytes

30. Which shaped population growth pattern is observed in frogs ?

(A) J (B) S

(C) L (D) T

31. Ecological efficiency is more in _____ .

(A) Trees (B) Grasses

(C) Algae (D) Fungs

32. During which stage there is almost no surface Walter

(A) Sedge - Meadow stage (B) Submerged hydrophyte

(C) Reed - Swamp stage (D) Pioneer stage

33. In _____ energy is obtained through fusion of hydrogen nuclei.

(A) Fussion reactor (B) Fast breeds reactor

(C) Atomic fussion reactor (D) Auto reactor

34. As BOD in water increases, the O_2 in water _____ .

(A) Increases (B) Decreases

(C) Ramains same (D) Increase-Decrease

35. Which of the following is used to manufature detergents.

(A) Red Algae (B) Agar - Agar

(C) Fish (D) Prowns

36. What is the equation of average annual growth rate ?

(A) $\left\{\frac{p_1 - p_2}{p_1 \times N}\right\} \times 100$ (B) $\left\{\frac{p_1 - p_2}{p_2 \times N}\right\} \times 100$

(C) $\left\{\frac{p_2 - p_1}{p_2 \times N}\right\} \times 100$ (D) $\left\{\frac{p_2 - p_1}{p_1 \times N}\right\} \times 100$

37. Which animal disease spreads by species babesia ?

(A) Authrax (B) Tick fever

(C) Rinder pest (D) Ascarialis

38. Which chemical substances, present in mast cells are responsible for inflammation ?

(A) Lysozyme and Histamine (B) Histamine and Prostaglydine

(C) Prostaglydine and Lglozyme (D) Histamine and Prostaglandin

39. Which method enhances union of bones ?

(A) MRI (B) Endoscopy

(C) Sonography (D) X - Rays

40. What is Positron ?

(A) Radiation (B) Subatom

(C) Atom (D) Proton

BIOLOGY
GUJCET

Sample Paper-2

Time : 1:00 Hr.] **STD : XII** **[Total Marks : 40**

1. Which component of water pofential depends on position of water mass ?

   (A) Gravitational (B) Concentration

   (C) Position (D) Capillary

2. Growing points die, young leaves are yellow and crinlkly due to deficiency of _____.

   (A) Mg (B) Mo

   (C) Ca (D) Mn

3. The ____ from which we obtain enegry is also a product of photosynthetic activity in past.

   (A) Fule (B) Fossil Fule

   (C) Organic Matter (D) Wood

4. RQ of Tripalmitin is _____.

   (A) 4 (B) 1

   (C) 0 (D) Infinite

5. Cod Fish and Shark Fish liver oil is rich in :

   (A) Retinol (B) Thiamine

   (C) Riboflavin (D) Tocoferol

6. A bong structure which form main part of tooth is _____.

   (A) Pulp (B) Crown

   (C) Gums (D) Dentive

7. What makes the bolus smooth and facilitates its swallouing.

   (A) Macus (B) Enzyme

   (C) Water (D) Jalivary Juice

8. What heeps oespiratory pallage open and prevent it from blockage.

   (A) Cartilage (B) Cartihagenous plates

   (C) Cartilagenous (D) Diaphragm

9. Fluid arculating through blood sinuses in cockroach is called _____.

(A) Haemolymph (B) Haemosinus

(C) Haemocoel (D) Haemocoelom

10. Pulse of _____ is selated to cardiac cycle.

(A) Arteries (B) Veins

(C) Woist (D) Heart

11. A large number of _____ and a large number of micronilli occur in the cells of wall of winiferous tabale.

(A) Golgi apparatus (B) Mitochendria

(C) Ribosomes (D) Lysosomes

12. The concentration of substances which is to be semoned from patients blood must be nil in dialysing liquid. State which of the following ?

(A) Urea, Sulphate (B) Na^{++}, K^{+}

(C) Creatinine (D) Uric acid

13. Prolonged cortisone treatment can cause _____.

(A) Ostearthritis (B) Rheratoid asthritis

(C) Osteoporosis (D) Gouty arthritis

14. Nervous system is arranged like a ladder in the body in which of following animal.

(A) Planaria (B) Hydra

(C) Earthuosm (D) Cockroach

15. Structurally as well as neurochemically specialised group of cells occur among reficular system. They are called _____.

(A) Nuclei (B) Gyri

(C) Sulci (D) Lissures

16. Cavity between Cornea and lens is ftleed with aqueous alhaline fluid called as _____

(A) Vitreous humor (B) Anterior cavity

(C) Fluid filled cavity (D) Aqueous humour

17. Endolymph is formed of _____

(A) Saccules (B) Semicircular canals

(C) Chochlea (D) Otolithe

18. Myxodema occurs due to reduction of _____ in Adults.

(A) Searotion of Thyroxine (B) Cortisol

(C) Calcitonia (D) Aldosterone

19. Which hormone can enter cell a nudeus directly ?

(A) Sodine Containing (B) Peptide

(C) Glycoprotein (D) Steroid

20. Main supporting plant is called ____ plant.

(A) Scion (B) Stock

(C) Stolon (D) Symbiont

21. In vallisheria female flower have waxy stigma due to water thay become _____.

(A) Gel like (B) Semisolid

(C) Concave discs (D) Silid

22. The _____ is absorbed in the cotyledens of the developing embryo.

(A) Malticellular endosperm (B) Water

(C) Nutrients (D) Minerals

23. In phase of _____ volume of cells increases.

(A) Cell formation (B) Cell differentiation

(C) Cell enlargement (D) Cell division

24. Cytokinins was first obtained from the sperm of _____.

(A) Herring Fish (B) Cod Fish

(C) Shark (D) Whale

25. Algue like chlamydononal and volvox show _____ movements.

(A) Amoebrid (B) Cydocis

(C) Rotatory (D) Flagellary

26. Autonomous movement of curvature in growth of stem from an apical bud is called ____.

(A) Nutation (B) Tropism

(C) Nartism (D) Pulvinus

27. Amoeta withdraws thair Pseudopodia and create hard protective three lagered cyst is called :

(A) Encrustation (B) Encystation

(C) Endocytosis (D) Entogenous

28. Blood vellels, nerves and conducting tabular all these structure jointly conetitute :

(A) Vasa deferens (B) Urethra

(C) Spesmatic cord (D) Seminal Veride

29. Corpur luteum secreter the hoemone _____.

(A) Progesferone (B) Tertosterone

(C) Oestrerogen (D) None

30. What is chorion villi covered by blood sinupel of maternal tissue called as.

(A) Haemochorional Placenta (B) Umbilicol cord

(C) Placenta (D) Alantois

31. Animals like _____ can discard their entire alimentary canal an regenerate it.

(A) Star fish (B) Lizard

(C) Sea Cucumber (D) Sea Urchin

32. What is present in safe vaccines ?

(A) Dead Virus (B) Capsid Virus

(C) Dead Bacteria (D) Nuclear Part of Becteria

33. From the following who activates B Cells :

(A) IgA (B) IgM

(C) IgG (D) PgC

34. Which plant shows viviparous germination ?

(A) Lotus (B) Lemna

(C) Hydrilla (D) Rhizophora

35. In the higher catagory plants, 80% of plants show which type of root ?

(A) Repiratory root (B) Aerial root

(C) Stable root (D) Mycorhiza

36. Which of the following animal is from Tundra ?

(A) Monkey (B) Lizard

(C) Caribow (D) Lion

37. The CO_2 released from Lichens during sespioation reacts with water to form _____.

(A) Acid (B) Bafe

(C) Organic substances (D) Inorganoc substances

38. Which of following family is not belaging to Petroplants ?

(A) Euphorbiaceae (B) Amaryllidaceae

(C) Apocynaceae (D) Asclepidiaceae

39. What reacts with Ozone and produces chlorine monoxide and oxygen ?

(A) CFC (B) HFC

(C) CO_2 (D) CH_4

40. In which method of diagnous iodine is used ?

(A) Digital Substraction Ayerography (B) CT Scan

(C) MRI (D) PET

BIOLOGY
GUJCET
Sample Paper-3

Time : 1:00 Hr.] **STD : XII** **[Total Marks : 40**

1. Which is a correct path of the conduction of water and solute from soil to the conduting tissue of root ?
   (A) Soil → Root hair → Cortex → Endodermis → Pericycle → Metaxytem → Protoxylem
   (B) Soil → Root hair → Cortex → Pericycle → Endodermis → Protoxylem → Metaxylem
   (C) Soil → Epidermal Cells of Root → Cortex → Endodermis → Metaxylem → Protoxylem
   (D) Soil → Root hair → Cortex → Endodermis → Pericycle → Protoxylem → Metaxylem
2. Which wineral ion is structrural component of cytochrome and ferridoxin ?
   (A) Iron (B) Chlorine
   (C) Magnesium (D) Boron
3. From Chloroplast, into which organell glycolate enters ?
   (A) Chloroplast (B) Mitochondria
   (C) Peroxisome (D) Golgi Complex
4. In which reference, C_4 plants differs from C_3 plants ?
   (A) Substance that accepts CO_2 during carbon fixation
   (B) Type of endoproduct of photosynthesis
   (C) Number of ATPs that are consumed in the synthesis of sugar
   (D) Type of pigments involved in photosynthesis
5. In which of the following during kreb cycle substrate bases phosphorylation occurs ?
   (A) α - Ketoglutarate → Succinylco A
   (B) Succinate → Fumrate
   (C) Succinyl -Co A → Succinate
   (D) Isocitrate → α - Ketoglutarate
6. It is the structural component of respiratory pigment.
   (A) Potassium (B) Iron
   (C) Iodine (D) Zinc
7. If forms brain of cockroach :
   (A) Sub-oesophageal ganglion formed by the fusion of three ganglia
   (B) Two sub-oesophageal ganglion
   (C) Two Supra-oesophageal ganglion
   (D) Supra-oesophageal ganglion formed by the fusion of three ganglion

8. Deficiency of which vitamin results in dermatitis ?

(A) Riboflavin (B) Folic acid

(C) Pyridoxin (D) Biotin

9. Why is alkaline auedium required indoudenum ?

(A) For the activity of Enzymes of Pancreatic juice

(B) For digestion by bile

(C) For the absorpten of nutrient

(D) None above

10. In cockroach, which branch of longitudinal tracheal trunk is providing O_2 to alimentary canal ?

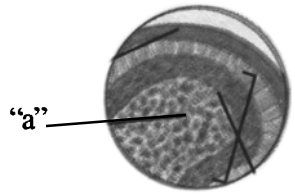
(A) Dorsal branch (B) Ventral branch

(C) Middle branch (D) Lateral branch

11. In the given diagram of lymph node section, what does "a" represent ?

(A) Capsule (B) Sinus

(C) Cortex (D) Medulla



12. These are functions of haemolymph in cockroach.

(A) Transport of O_2 and water storage

(B) Transport of CO_2 and water pressure

(C) Transport of nutrient, water storage and water pressure

(D) Transport of nutrient and O_2

13. During which process of urine formation water, glucose, amino acid and mineral ions are taken back into blood flow ?

(A) Pressure filtration (B) Tubular secretion

(C) Selective reabsorption (D) Excretion

14. Secretion of which gland keeps skin oily ?

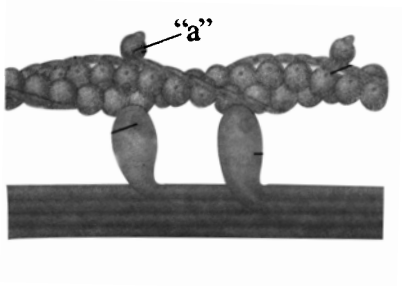
(A) Touch gland (B) Green gland

(C) Sweat gland (D) Sebaceous gland

15. In the given diagram, what does "a" represent ?

(A) Tropomysin (B) Troponin

(C) Actin Filament (D) Myosin Cross-brigde



16. Why are 8, 9, 10 ribs called vertebro - chondrial ribs ?

(A) They are joining with each other trough cartilage.

(B) They individually join to 7th rib through cartilage.

(C) They join to 12th rib through cartilage.

(D) They join with each other, as well as to 7th rib through cartilage.

17. Which part of brain is controlling the process of sneezing, vomitting and swallowing ?

(A) Cerebellum (B) Medulla oblongata

(C) Cerebrum (D) Mid brain

18. Which cranial nerve enervates thoracic and abdominal regions ?

(A) II (B) IV

(C) XII (D) X

19. Hyposecretion of which gland increases phosphate level in blood ?

(A) Thyroid gland (B) Pituitary gland

(C) Thymus gland (D) Parathyroid gland

20. It stimulates sythesis of lipid and protein and prevent their utilization as energy resources ?

(A) Glucagon (B) Aldosterone

(C) Insulin (D) Cortisol

21. In whic plant stigma is branched hairy and sticky ?

(A) Water pollinated (B) Wind pollinated

(C) Insect pollinated (D) Bird pollinated

22. Which hormone is added to culture medium, to continue cell division process ?

(A) ABA (B) Cytokinin

(C) Ethylene (D) GA_3

23. It is a process of formation of a spiral structure through development of apical bud ?

(A) Tropism (B) Taxis

(C) Nutation (D) Nastism

24. Which of the following pairs are correct match for column-I and column-II ?

	Column - I		**Column - II**
(a)	Follicular phase	(I)	LH level increase
(b)	Ovulation	(II)	Corpus luteum
(c)	Luteal phase	(III)	Maturation of ovarin follicle and more FSH

(A) a- III, b - I, c - II (B) a- I, b - II, c - III

(C) a- II, b - III, c - I (A) a- II, b - I, c - III

25. In which of the following sperms are attaining maturity ?

(A) Vasa deference (B) Epididmis

(C) Seminal vesicle (D) Ejaculation duct

26. Accroding to which theory ageing is a predetermined ?

(A) Living theory (B) Free redicate theory

(C) Programmed, senescence theory (D) Wear and tear theory

27. It is the way in which, an organism utilizes its habitat for sustaining its life.

(A) Acclimatization (B) Competition

(C) Antibiosis (D) Niche

28. What is the difference in the number of individuals between that at the begining and that at the end of the given period called ?

(A) Death Rate (B) Density

(C) Dispersal (D) Natality

29. In this horizon of soil, accumulation of humic compound is found ?

(A) O (B) A

(C) B (D) C

30. Which of the following is equation of photosynthesis efficiency ?

(A) $\frac{\text{Use of Energy in Food}}{\text{Energy obtained through food}} \times 100$

(B) $\frac{\text{Gross Primary production}}{\text{Net Primary Production}} \times 100$

(C) $\frac{\text{Gross primary Production}}{\text{Available Solar Energy}} \times 100$

(D) $\frac{\text{Production of biomass at own level}}{\text{Production of bio mass at a lower trophic level}} \times 100$

31. With reference to floating stage of hydroseric syccession, which one is irrelevant ?

(A) Lemna (B) Snail

(C) Crab (D) Tortoise

32. Which plants are found in savana ?

(A) Zizyphus and Capparis (B) Teak and Bombax

(C) Acacia and Bombax (D) Teak and Lichens

33. Which of the following is removed in second stage of sewage treatment ?

(A) Large suspended substances (B) Nitrates and Phosphate

(C) Sludge (D) Grit

34. Which pollutants can cause disease of lungs and heart ?

(A) Hydrogen Cyanides (B) Nitrogen Oxides

(C) Hydrogen Fluorides (D) Hydrocarbon

35. In which disorder, person does things compulsively against one's own will ?

(A) Anxiety (B) Mood

(C) Attention deficit (D) Obsessive Compulsive

36. The population size of a region is 50,000 as per present census and population size as per past census is 10,000, then what will be an average, annual growth rate (in percentage) ?

(A) 10% (B) 50%

(C) 60% (D) 40%

37. Which hormone is added in suspension culture ?

(A) Gibberrelins (B) 2, 4–D

(C) Abscisic Acid (D) Ethytene

38. After obtaining patent for brazzein, by using which plant America made genetically auodified variety, and which product was manufactured through this variety ?

(A) Plant : Maize and Product : Sugar

(B) Plant : Brassica and Product : Cry protein

(C) Plant : Gymnema and Product : Sugar

(D) Plant : Turmeric and Product Antiseptic

39. Its function is to activate B - Cell.

(A) I_g G (B) I_g M

(C) I_g A (D) I_g E

40. Which of the following secretions are responsible for inflaumatory barrier ?

(A) Heparin and Histamine (B) Dil.HCl and Lysozyme

(C) Histamine and Prostaglandin (D) Heparin and Prostaglandin