BIOLOGY - IX

BOTANY

HIV / AIDS

1. AIDS means [ ]
   a) Acquired immuno deficiency syndrome b) Anti immune defective syndrome
   c) Acquired immune defense syndrome d) Adopted immune deficiency syndrome
2. The period between child hood and adult hood is known as [ ]
   a) Middle age b) Young age c) Adolescance stage d) All the above
3. In girls pimples appeal on the face due to the activation of these glands [ ]
   a) Oil glands b) Mammery glands c) Sweat glands d) a & c
4. First AIDS patient in India was recognized in the year [ ]
   a) 1986 b) 1983 c) 1990 d) 1985
5. Scaly red skin, black heads & white heads and pimples with inflammation are the symptoms of [ ]
   a) Acne b) Fever c) Allergy d) None
6. The first AIDS patient was reported from thin state in India [ ]
   a) Andhra Pradesh b) Uttar Pradesh c) Karnataka d) Tamilnadu
7. Syphilis, Gonosshoea, AIDS e.tc. are known as [ ]
   a) Viral transmitted diseases b) Bacterial/diseases
   c) Sexually transmitted infections d) All the above
8. AIDS cannot be spread by [ ]
   a) Shaking hands with AIDS patients b) Living together with HIV + ve persons
   c) Mosquitoes d) All the above
9. We can control our emotions like feal, anger, anxiety, stress, strain by [ ]
   a) Taking medicine b) Sleeping well
   c) Mingling with friends d) practising yoga, meditation e.tc
10. The feeling of others joys and sollows as ours is known as [ ]
    a) Endulance b) Empathy c) Enemity d) None
11. The symptoms appear within _____ years, after the entry of HIV virus into our body [ ]
    a) 3-5 years b) 5-8 years c) 6-10 years d) 1year
12. HIV acts on our [ ]
    a) Heart b) Liver c) Respiratory system d) Immune system
13. Hiv lives only in the human secretions .What in its fate if it is separted from them ? [ ]
    a) If becomes in active b) If becomes over active
    c) It dies d) Don't know what happens
14. Hiv belong to thin group of viruses [ ]
    a) Setrovirus b) Shin virus c) Adeno virus d) None
15. AIDs can be controlled mainly by bringing a wareness I about its causes ,the way its pleads the way it does't spreadr etc a mong people .This is done by thin organisation in india . [ ]
    a) NGO b) Social welfare Societyc) NACO d) None

16. The following cll count decrease in the blood of HIV + ve person [ ]
a) RBC b) Neutrophils c) Eosinophils d) T- lymphocytes

17. AIDs was first reported in the year [ ]
a) 1980 b)1981 c) 1983 d)1985

CROP IMPROVEMENT

1. Transferring and combining desisble characteristics into one plant species and then multiphying these improved plants is known as [ ]
a) Plant breeding b) Crop improvement c) Crop selection d) None

2. In areas where frequent cyclonic storms with strong winds, are seen farmers prefer to grow this variety of rice [ ]
a) Tall variety b) Dwarf variety
c) Disease resistant variety d) Earth maturing variety

3. The major objective of the plant breedes in a crop improvement is [ ]
a) To secure food by increasing yield in a unit area of cultivation
b) To secure food by growing many number of crops
c) To secure food by growing the crop in large areas
d) To secure food by growing mixed varieties of crops

4. We cannot get plants with new characters in self pollinated plants because [ ]
a) Self-pollinated plants do not produce large number of seeds
b) Both male and female gameter are from the same plant
c) Self-pollinated plants matures early
d) There are no new varieties in self pollinated plants

5. Getting plants growing in one area into another new area where they are not grown before is called [ ]
a) Transfer b) Selection c) Introduction d) None

6. The process of plants getting a dopted to new environment is known as [ ]
a) Adoption b) Adjustment c) Acquaintance d) Acclimatization

7. When new plants are introduced into a place from other place, there is a chance of diseases and pests to be carried along with the seeds or planting material. To restrict the entry of new pathogens and pests, seeds/ planting material in subjected to rigorous scientific tests called [ ]
a) Preventing tests b) Isolation c) Quarantine d) None

8. Theory of natural selection is put forward by [ ]
a) Charles Darwin b) Linnaeus c) Lamarck d) Engles

9. This is the oldest method of selection followed by farmers in India from a long time[ ]
a) Mass selection b) Pure line selection c) Clonal selection d) None

10. Pure line selection is done among [ ]
a) Self-pollinated crops b) Cross-pollinated crops
c) Both d) None

11. All the progeny of a single self-pollinated plant is known as [ ]
a) Progeny b) Offspring c) Hybrids d) Pure line

12. A group of genetically similar plants resembling the parent type, obtained by vegetative propagation of the parent plant is called a [ ]
a) Ramet b) Clone c) Pure line d) All the above

13. Vegetatively propagated plants like sugarcane, grapes etc. can be improved by [ ]
a) Mass selection b) Pure-line selection c) Clonal selection d) None

14. This is the first man made inter genetic hybrid [ ]
a) Triticale b) Raphanoblassica c) Solano pessicum d) All

15. The Process of bringing wild species under human management is called [ ]
a) Adoption b) Domestication c) Cultivation d) None

16. Removing the anthers from the bisexual flowers of female plant before they mature, to potect against self-pollination is called [ ]
a) Emasculation b) Sterilization c) Male sterility d) None

17. The superiority of hybrid plants over this parents is known as [ ]
a) Hybridvigour b) Heteosis c) Super power d) a & b

18. A sudden change in a orgmisn ,confined tothat generation only (ie not heritable) in called [ ]
a) Hybridvigour b) Heterosis c) Super powr d) A & b

19. Sudden heritable genetic change in an organism is know as [ ]
a) Mutation b) Variation c) Improvement d) None

20. This is the term used to explain the chromosome complement of a species [ ]
a) Haploid b) Diploid c) Ploidy d) All the above

21. A substance that in capable of causing mutations is known as [ ]
a) Mutant b) Mutagen c) Mutation agent d) Mutating chemical

22. Chromosomal number of a cell can be doubled by using [ ]
a) Colchicines b) x –rays c) Uvrays d) Chemicals

23. A deviation from diploid (2x) status of chromosomes in called [ ]
a) Euploid b)Aneuploid c) Polyploidy d) Meta ploid

24. A plant having more than two full sets of chromosomes is called [ ]
a) Euploid b) Diploid c)Tetra ploid d) Pohy ploid

25. The technique used in prouding bigger size seedless fruits like water melon , pomeglanate e.t.c is called [ ]
a) Polyploidy b)Mutation c) Selection d) Hybridization

26. A number of plants are selected to make up a new naivety of plant in [ ]
a) Mass selection b) Clonal selection c) Puleline selection d) All the above

27. Glowing seed less varieties of fruits is not very profitable in these plants [ ]
a) Groundnut b) Sunflower c) Safflower d) All the above

28. Getting an entire plant from a single cell by growing it on cultured medium under controlled conditions is known as [ ]
a) Biotechnology b) Genetic engineering c) Tissue culture d) None

29. Seed multiplication and seed certification is done by [ ]
a) National seed corporation b) State seed corporation
c) Both d) None

30. A farmer obtained a packet of cotton seeds from an agent ,who said that it wil give good yield . The packet is having a golden yellow label on it .What type of seed in it ? [ ]
a) Foundation seed b) Bleeder seed c) Certified seed d) None

31. The seed having highest genetic purity is called [ ]
a) Nucleus seed b) Bleeder seed c) Foundation seed d) Certified Seed

32. _____ is to create an a wariness seed among the farming community on the magnitude of food grain wastage and losses during the post harvest handling . [ ]
a) Save seed campaign b) Save grain campaign
c) Save field campaign d) Save dormer campaign

33. Save glain campaign " head quarters in located at [ ]
a) Hyderabad b) Calcutta c) Chennai d) New Delhi

34. Thin can be sprayed on the lain bags ,walls , floors of the storing room to protect the grlins from insects and pests [ ]
a) Endrin b) Monocroto phos c) Malathion d) DDT

35. These are known as rodenticide [ ]
a) Rodafarin b) Warfarin c) Ratefin d) All the above

36. These tablets can be used to control rodents [ ]
a) Ammonium chloride b) Ammonium supplied
c) Zinc Bromide d) Ammonium phosphide

37. Rodafalin in thin type of drug used to control rodents [ ]
a) Anti transpirant b) Anti coagulant c) Anti sespilant d) None

38. Fungi like aspergillums ,penicillium , rhizopus are known as [ ]
a) Filed Fungi b) Storage fungi c) Saprophytic fungi d) None

39. To minimize fungal contamination of stored glains , the inherent moisture content of the grin is reduced to a safe level . Thin can be done by [ ]
a) Drying in sun b) Glain dryess c) Boiling d) A & B

40. The following are responsible for maximum damage of food grains in slotage [ ]
a) Alge b) Bacteria c) Fungi d) Birds

41. ICAR stands for [ ]
a) Indiax council of agricultural research
b) International center of agricultural research
c) Internal committe for agricultural research d)None

42. Directorate of oil seeds research (DOR) in located at [ ]
a) Lucknow b) Srinagar c) Chennai d) Hyderabad

43. Thin yields non –edible oil [ ]
a) Sunflower b) Mustard c) Castor d) Glovnd nut

44. Thin bacteria present in root nodules of legume plants ,that increase the sol fertility in [ ]
a) Rhizopus b) Rhizovium c) Rhodospirillum d)Bacillus

45. The type of chicken that in grown for eggs in knowas [ ]
a) Broiler b)Layer c) Both d)None

46. Aseel ,Chittagong ,Ghagun etc are [ ]
a) Sistrict in up b) Names of hill stations
c) Desi breeds of poultry d) Names of famous personality

47. Normally hens eggs are white in colour .But the eggs of these bleeds blown in colour [ ]
a) Indian b) Desi c) Hybrid d) American

48. De beaking is done to pleven losses in povltry due to pecking and harming of hens by other hens . De beaking means [ ]
a) Cutting of crown b) Cutting of beak
c) Cutting of claws / nails d) All the above

49. The following are dreaded viral disease seen in poultry [ ]
a) Fowl pox b) Ranikhet c) Both d) None

50 Chicks in the poultry can be protected from disease by [ ]
a) Giving tablets b) Providing good balanced diet
c) Vaccinating d) Giving treatment to the disease

NATURAL RESOURECES

1. Material present in large quantities and held in resesue for tuture use [ ]
a)Resource b) Pollution c) Planets d) Atmosphere

2. Renewable resources can be renew by means of [ ]
a)Recyclines b) Reproduction c) Replacement d) All

3. Coal ,petroleum , minerals are example for [ ]
a)Renewable resources b) Non renewable resources
b)Both a and b d) None

4. Chief component of our planet [ ]
a)Land b) Water c) Wal d) Petrdeum

5. Amount of fresh water available is [ ]
a)97% b) 80 % c) 3 % d) 5%

6. Chief cornponent of blood is [ ]
a)Water b) Blood cells c) Soil d)mimeses

7. Constant exchange of water between sea ,land and atmosphere is [ ]
a)Nitrogen cycle e b) 'Oxygen cycle c) Clbon cycle d) Hydrological cycle

8. Large amount of fresh water is present in [ ]
a)Polar ile laps b) Lakes c) Seas d) Rivers

9. Very few animals and plants are present in desert because [ ]
a)There is land b) There is very little water
c)There are no roads d) If is not in desert

10. Air is a mixture of gas unsounding earty. This is called [ ]
a)Pressure b) Atmosphere c) CO_2 d) Vapour

11. Green house effect of this atmosphere is due to the presence of [ ]
a) O_2 in air b) CO_2 in air c) Nitrogen in air d) Methane

12. Chlerofloro hydrocorals destroy [ ]
a)Atmosphere b) Water and vegetables
c) Green house d) Carbana dioxide

13. Pre biotic soop consists of [ ]
a)Water b) water and vegetables
c) water and meat d) Water and chemicals

14. Which are identified to be the earliest tiuing from : [ ]
a) Protolea b) Small plants c) Cyanobacteria d) Fungi

15. Which gas was absent in astrosphere when earth was formed [ ]
a) Methane b) hydrogen c) oxygen d) Ammonia

16. Experiments on the origin of life was conducted by [ ]
a) Aristotie b) Daswin c) Stanleyvilles d) Lamarck

17. Scientifie evidences indicate that earth was formed [ ]
a)4600 million years ago b) 5600 million years ago
c) 3600 million years ago d) 2600 million year ago

18. Sea needs accumulate [ ]
a) Thorium b) Iodine c) Chlorine d) Bromine

19. sand in the beaches of Kerala contains [ ]
a) Deuterium b) Gold c) Thorium d) uranium

20. Which of the following is economical to extract from sea [ ]
a) Gold b) Sodium chloride c) Molybdenum d)Iron

21. Which of the following is heaving isotope of hydrogen [ ]
a) Dentesium b) Thorium c) Gold d) Iran

22. Silicon used in computer industry is obtained from [ ]
a) Key board b) Sand c) Cement d)thorium

23. Quick line is obtained from [ ]
a) Sea weeds b) line water c) Shells of molluscs d) Sand

24. Sodium chloride in sea water is about [ ]
a) 1.8 % b)2.8 % c) 3.8 % d) 4.8 %

25. Top most layer of earth crust is called [ ]
a) Sand b) Grass c) top soil d) Dust

26. Loss of top soil is called : [ ]
a) Soil erosion b) Soil protection c) Soil conservation d) Soil degradation

27. Over grazing and improper tilling are [ ]
a) Natusol causes b) Man made cause c) Pollution causes d) Jhone type farsuing

28. The stern of dablergia yields : [ ]
a) Oil b) Timber c) Fibre d) Coir

29. Arornatic oils are present in [ ]
a) Cereals b) Pulses c) Spiles d) Oils

30. Plant product quinine is used in [ ]
a) Jandile b) Malaria c)Typhoid d) Aids

31. Heart disease are caused by a plant product [ ]
a) Quinine b) Neem c) Tulasi d) Digitalis

32. The important source for gene bank is [ ]
a) Wild life b) Forest life c) Desert life d) Aquatic life

33. Wild life act was passed in [ ]
a) 1972 b) 1973 c) 1974 d) 1975

34. Pakhal sanctuary in wrangle distick protects [ ]
a) Crocodiles b) Dees c) Tiger and Bison d) Migratory birds

35. Non pollutions unlimited energy resources are called [ ]
a) Renewable nesources b)Non renesources
c) Alterhrte fuels d) Fossil tuels

ORGANISMS HABITAT & ECOCOGICAL BALANCE

1. Hibernation means [ ]
   a)Summer sleep b) Winter sleep c) Night sleep d) No sleep
2. Animals permanently lives in cause do not have [ ]
   a)Nose b) Eyes c) Legs d) Stomach
3. Aestivation is seen daring [ ]
   a)Summer b) Winter c) Spring d) An times
4. Leaves in desest plants are covered by [ ]
   a)Moisture b)Fur c) Hair d) Wap
5. Pillion thermal animals are [ ]
   a)Warm blooded b) Cold blooded c) Normal temp d) High temp
6. Example for hunewternite animals [ ]
   a)Fish b) Amphibians c) Birds d) Replies
7. To present weter lots term body marne organics stere [ ]
   a)Ammonia b) Urea c) Uric acid d) Glucose
8. For every lometres depths the decrease in atmospheric depth is [ ]
   a)1 b)2 c) 3 d) 4
9. Organisms living an surface waters [ ]
   a)Phytoplankton b) Zooplankton c) Pelagic organisms d) Nekton
10. Which organism is called portughese – man of was [ ]
    a)Mollusca b) Plusalia c) Starfish d) Crocodile
11. The place where river joins th tea is [ ]
    a)Estuary b) Nektern c) Benthic zone d) Abyssal zone
12. In the deepes layer of the it is [ ]
    a)Dark b) Cold c) Dark & cold d) Dark & warm
13. Tropic level in an ecosystem represents the [ ]
    a)Water level b) Energy level c) Salt level d)Oxygen level
14. Which of the following represent a par biosphere [ ]
    a)Forest b) River c) Open sea d) Polas ice cap
15. Which one of the following is a physical component in a terrestrial ecosystem [ ]
    a)Type of soil b) Types of salts in soils
    c)Tots salt content of soil d) Total content of orgnic
16. Catalytic convertors are vled in [ ]
    a)Anto mobiles b) Wind mills c) Ponltiy farms d) Dairy farms
17. The gas unfed for killing bacterial in water is [ ]
    a)Nitrogen b) Carbandihyide c) Chlorine d) Helium
18. The pollutant present in coal wine exhaust [ ]
    a)Carbon monoxide b)Carbon dioxide c)Water vepour d) Ash
19. Exeams acts as somls fer : [ ]
    a) Hydrogen b) Oxygen c) Carbon dioxide d) Carbon monoxide
20. Electrostatic preliptelers are used to [ ]
    a) Reduce dust b) Reduce smolce c) Reduce air d) Reduce friction
21. Trimethyl lead is formed by busnis [ ]
    a) Wood b) Kerosene c) Petrol d) Coal

22. The stonily of physical ,chemical and biological aspects of fresh locates is [ ]
a) Hydrology b) Oceamosrephy c)Limniosy d) Genctics

23. Animals living fresh weter posses [ ]
a) gills b) Wings c) Suckers d) Scales

KEYSHEET

HIV / AIDS

1. A	**2.** C	**3.** D	**4.** A	**5.** A
6. D	**7.** C	**8.** D	**9.** D	**10.** B
11. A	**12.** D	**13.** C	**14.** A	**15.** C
16. C	**17.** D	**18.** B		

CROP IMPROVEMENT

1. B	**2.** B	**3.** A	**4.** B	**5.** C
6. D	**7.** C	**8.** A	**9.** A	**10.** A
11. D	**12.** B	**13.** C	**14.** D	**15.** B
16. A	**17.** D	**18.** B	**19.** A	**20.** C
21. B	**22.** A	**23.** B	**24.** D	**25.** A
26. A	**27.** D	**28.** C	**29.** C	**30.** B
31. B	**32.** B	**33.** D	**34.** C	**35.** D
36. D	**37.** D	**38.** B	**39.** D	**40.** C
41. A	**42.** D	**43.** C	**44.** B	**45.** B
46. C	**47.** B	**48.** B	**49.** C	**50.** C

ZOOLOGY
UNIT- I
Organisation of Life

1. Both living and non-living forms are made of atoms of same elements but why the living organisms can perform certain activities which non-living things can not perform [ ]
   a) The iron present in living forms is more strong
   b) The elements present in living and non-living forms do not obey the same rules of physics and chemistry
   c) The arrangement and organisation of atoms make the difference in their behaviour
   d) None of the above
2. Which of the following is not correct? [ ]
   a) Robert Brown discovered the cell
   b) Scheiden and Schwann formulated the cell theory
   c) Virchow explained that cells are formed from pre-existing cells
   d) A unicellular organism carries out the life activities with in a single cell
3. New cells generate from [ ]
   a) Bacterial fermentation b) Regeneration of old cells
   c) abiotic cells d) Pre-existing cells
4. Which of the following statement is correct? [ ]
   a) Both animal and plant cells have a cell wall b) Cell of all living organisms have a nucleus
   c) In prokaryotes there no membrane bound organelles
   d) Cells are formed from abiotic material
5. Nucleus was discovered by [ ]
   a) Robert Koch b) Leeuwen hock c) Robert Brown d) Robert Hooke
6. Schleiden and Schwann are connected with [ ]
   a) Theory of cell lineage b) Cell theory
   c) Protoplasm physical basis of life d) nuclear control of cell
7. Who discovered the cell in a thin section of cork? [ ]
   a) Schwann b) schleiden c) Robert Hooke d) Leeuwenhoek
8. Nucleus was first discovered by Robert Brown in the year [ ]
   a) 1665 b) 1831 c) 1838 d) 1810
9. Who discovered the existence of unicellular organism? [ ]
   a) Robert Brown b) Leeuwenhoek c) Pasture d) Schwann
10. Mitochondria are absent in [ ]
    a) Algae b) Amoeba c) Bacteria d) Euglena
11. Match the items listed in column I with appropriate items in column II [ ]

Column I	Column II
i) Diffusion of solvent	a) Exocytosis
ii) Diffusion of fluid material	b) Active transport
iii) Release of material from cells	c) Phagocytosis
iv) Intake of solid particles	d) Osmosis
v) Expenditure of energy	e) Pinocytosis

a) d, e, a, c, d b) e, a, c, b, d c) b, d, e, a, c d) a, e, b, d, c

12. Largest single cell of a multicellular organism is [ ]
a) Nerve cell b) Ostrich egg c) Muscle cell d) Epithelial cell

13. The longest cell is [ ]
a) Bone cell b) Epithelial cell c) Nerve cell d) Blood cell

14. Golgi apparatus are lacking in [ ]
a) Liver cells b) yeast c) higher plants d) Cyanobacteria

15. Membrane covering is lacking around [ ]
a) Lysosome b) Ribosome c) Mitochondria d) Plastids

16. The major component in protoplasm is [ ]
a) Carbohydrates b) lipids c) Proteins d) Water

17. Common to all the cells from bacteria to man or plant is [ ]
a) Mitochondria and chloroplast b) Ribosomes and Golgi complex
c) Plasma membrane and protoplasm d) Protoplasm and Endoplasmic reticulum

18. Pick the odd-men out [ ]
a) Cytoplasm b) Nucleoplasm c) Chromatin d) Nucleolus

19. Power houses of the cell are [ ]
a) Lysosomes b) Mitochondria c) Ribosomes d) Endoplasmic reticulum

20. Lysosomes are called as [ ]
a) Suicidal bags of cell b) Power houses of cell
c) Kitchens of cell d) Sugar factory

21. The organelle regarded a sugar factory in an autotrophic eukaryotic cell [ ]
a) Autotrophic eukaryotic cell b) Mitochondria
c) Endoplasmic reticulum d) Ribosomes

22. Pick out the wrongly matched one [ ]
a) Mitochondria – Oxidising carbohydrates b) Lysosomes – Intracellular digestion
c) DNA – Genetic material d) Ribosomes – Cell movements

23. Pick out the rightly matched one [ ]
a) Cytoskeleton - Mechanical support to cell and participate in cell movements
b) Golgi complex - Photosynthesis
c) Endoplasmic reticulum - Cell division d) Nucleus - Digestion

24. Match the following [ ]

i) Chloroplast	a) RNA factories
ii) Ribosomes	b) Sugar factories
iii) Smooth endoplasmic reticulum	c) Protein factories
iv) Nucleolus	d) Lipid factories

a) a, b, c, d b) d, c, b, a c) b, c, d, a d) c, d, b, a

25. Groups of ribosomes are called as [ ]
a) Polysomes b) Oxysomes c) Peroxysomes d) Desmosomes

26. Cell wall is absent in [ ]
a) Bacteria b) Algae c) Fungi d) Animals

27. The major component of cell wall is [ ]
a) Protein b) Fat c) Water d) Carbohydrates

28. Cellulose is absent in the cell wall of [ ]
a) Bacteria b) Plants c) Animals d) Trees

29. An animal cell bursts when placed in [ ]
a) Isotonic solution b) Hypotonic solution c) Sugar solution d) Hypertonic solution

30. Plant cell wall possesses [ ]
a) Cellulose b) Hemicellulose c) Pectin d) All the above

31. Adjacent cells in a plant cell are connected through [ ]
a) Plasmodesmata b) Matrix c) Nucleus d) RER

32. The membrane surrounding the vacuole is [ ]
a) Tonoplast b) Nucleoplast c) Vaculoplast d) Chloroplast

33. Centrioles and centrosomes occur in the cells of [ ]
a) Green plants b) Animals c) Bacteria d) Both b and c

34. Young tomatoes are white in colour as they mature they turn to green and then to red in colour. This shows [ ]
a) Tomatoes are sweet and sour
b) Plastids have capacity to change from one form to other
c) Tomatoes are rich in vitamin 'c' d) Tomatoes are good for health

35. Match the following [ ]

i) Centrioles	a) Pollination
ii) Leucoplast	b) Cell division
iii) Chloroplast	c) Store the food
iv) Chromoplast	d) Photosynthesis

a) b, c, d, a b) a, b, c, d c) b, c, a, d d) d, c, b, a

36. Significance of mitosis is [ ]
a) Quick division b) Increasing cellular mass
c) Occurrence in energy tissue
d) Production of cells, genetically similar to parent cell

37. Meiosis is [ ]
a) Equational division b) Multiplication division
c) Disjunctional division d) Reductional division

38. Plants and animals make their beginning with a Single cell called [ ]
a) Pollen cell b) Zygote c) Somatic cell d) Germ cell

39. Pick out the wrongly matched one [ ]

a) Germ cell	-	Pollen mother cell
b) Somatic cell	-	Megaspore mother cell
c) Mitosis	-	Somatic cells
d) Meiosis	-	Germ cells

40. Mitotic cell division results in [ ]
a) Two diploid daughter cells b) Two haploid daughter cells
c) Four diploid daughter cells d) Four haploid daughter cells

41. Select the wrong statement [ ]
a) Meiosis results in four haploid daughter cells
b) A cell with two sets of chromosomes is a diplid cells
c) Doubling of the number of chromosomes is not a major event during cell division
d) Inter phase is the period when the cell grows in size and performs the physiological functions

42. In a plant cell [ ]
a) Centrioles never appear in cell
b) Centrioles temporarily appear during cell division
c) No cell division takes place d) Haploid number of chromosomes are present

43. A centriole with spindle fibres is called an [ ]
a) Aster b) Diploid cell c) Somatic cell d) Chromatid

44. Chromosomes move to the centre of the cell and form equatorial plate in [ ]
a) Prophase b) Metaphase c) Anaphase d) Telophase

45. Match the following [ ]

i) Prophase	a) Division of nucleus
ii) Cytokinesis	b) Chromosomes start condensing
iii) Telophase	c) Spindle fibre pull chromosomes to opposite ends
iv) Anaphase	d) Chromosomes decondense
v) Karyokinesis	c) Division of cytoplasm

a) b, e, d, c, a b) a, b, c, d, e c) a, c, d, e, b d) e, d, c, b, a

46. Pairing of chromosomes and crossinover occurs during [ ]
a) Meiosis b) Meiosis-I c) Mitosis d) Meiosis-II

47. Karyokinesis and cytokinesis occurs twotimes in [ ]
a) Mitosis b) Meiosis c) Amitosis d) None of the above

48. The life span of R.B.C is 120 days. After this time they become old and useless. They are replaced by new R.B.Cs by [ ]
a) Meiosis b) Mitosis c) Amitosis d) All the above

49. Crossing over of chromosomes occur during meiosis and is important for exchange of genetic information between individuals of species and results in [ ]
a) Evolution of species b) Fixed parental features
c) Clones d) All the above

50. Mitosis helps in [ ]
a) Growth b) Wound healing
c) To replace old and worn. out cells d) All the above

51. If the cell is having more than two sets of chromosomes then the condition is called as [ ]
a) Hcyloid b) Diploid c) Polyploid d) None

52. Uncontrolled division of cells results in the formation of [ ]
a) Callus b) Tumour c) Explant d) Embryo

53. Which is not a carcinogenic agent [ ]
a) Nicotine b) Aflatoxin c) DDT d) Glucose

54. Match the following [ ]

i) Leukaemia	a) Epithelial cells
ii) Carcinoma	b) Muscle cells
iii) Sarcoma	c) Blood cells

a) c,a,b b) a,b,c c) c, b, a d) a,c,b

55. Select the wrong statement [ ]
a) Ability of plant cell to give rise to whole plant is called tot potency .
b) In amoeba differentiation is common
c) Meristems have rapidly dividing cells .
d) Kidneys are derived from mesoderm.

56. Division of labour is not mesoderm. [ ]
a) Amoeba b)Volvox c) Earthworm d) Plants

57. The fundamental simple tissue in plants is [ ]
a) Collenchyma b) Sclerenchyma c)Parenchyma d) Xylem

58. Which tissue in plants conducts water [ ]
a) Xylem b) Phloem c) Sclerenchyma d) Collenchyma

59. Match the following [ ]

i) Chlorenchyma	a) Phloem
ii) Aerenchyma	b) Leaves
iii) Water storage	c) Tubers
iv) Store food materials	d)Hyclrophytes
v) Store food materials	e) Xerophytes

a) b,d,e,c,a b) a,b,c,d,e c) e,d,c,b,a d) c,b,a,d,e

60. Which is a dead tissue in plants [ ]
a) parenchyma b) collecnchyma c)Sclerenchyma d) All the above

61. Match the following [ ]

i) Areolar tissue	a) Adipose tissue
ii) Tip of ribs	b) Ligament
iii) Bone of bone	c) Packing tissue
iv) Bone to muscle	d) Cartilage
v) Fat tissue	e) Tendon

a) c,d,b,e,a b) a,b,c,d,e c) e,d,c,b,a d)b,e,a,d,c

62. Select the wrongly matched [ ]
a) Connective tissue → Fibroblasts
b) Osteocytes → Bone
c) Collagen → Ligament and Tendon
d) Epithebal tissue → Connective tissue

63. In fishes ,amphibians and reptiles R.B.C'S are [ ]
a) Nucleated b) Enucleated c) Both d) None

64. Match the following and select the right option [ ]

i) R.B.C's	a) Destroy micro organisms
ii) W.B.C's	b) Transport O_2 and CO_2
iii) Platelets	d) Form clot

a) b , a , c b) a , b, c c) c, b , c d) a ,c, b

65. Striated and voluntary muscles are present in [ ]
a) Skeleton b) Blood vessels c) Alimentary canal d) Heart

66. Involuntary striated muscles are present in [ ]
a) Heart b) Skeleton c) Alimentary canal d) Blood vessels

67. Blood vessels have [ ]
a) Striated muscles b) Cardiac muscles c) Smooth muscles d) None

68. The supporting cells of nervous system are [ ]
a) Neurons b) Glial cells c) Germ cells d) Blood cells

69. Meiosis has an evolutionary significance because it produces [ ]
a) Cienetically similar daughter cells b) Four daughter cells
c) Genetic variations d) Eggs and sperms

70. Nissl's granules occur in [ ]
a) Nerve cells b) Cartilage cells c) Muscle cells d) epithelial cells

71. Mammalian ear pinna is supported by [ ]
a) Bone b) Cartilage c) Adipose d) Tendon

72. Lining of intestine of mans is [ ]
a) Muscle b) Epithelium c) Bone d) Ligament

73. Number of mitosis divisions required to produce 128 cells from a single cell is [ ]
a) 7 b) 14 c)16 d)32

74. Which one is present on a chromosome ? [ ]
a) Centrosome b) Centromere c) Nucleus d) Golgi body

75. When the paternal and maternal chromosomes mutually exchange their material in cell division , the event is called [ ]
a) Synapsis b) Crossing is called c) Bivalent formation d) Dyad formation

76. In mitiosis , nuclear envelope and nucleolus reappear during [ ]
a) Prophase b) Metaphase c) Telophase d) Anaphase

Unit – II
Life Processes

77. A autotroph is an organism that [ ]
a) Uses water as solvent b) Sustain itself in the absence of O_2
c) Sustain itself without eating other organisms d) Requires no input of materials

78. The autotrophic organisms which obtain energy by oxidising simple inorganic compounds such as hydrogen sulphide , ammonia etc are . [ ]
a) Photo autotrophs b) Chaemoautotrophs c) Both 'a' and 'b' c) None

79. Association between organisms of different species is called [ ]
a) Predation b) Symbiosis c) Heterotrophs d) Autotrophs

80. The association which is beneficial to both the partners is [ ]
a) Parasitism b) Mutualism c) Prey and predator relationship d) None

81. Association in which one organism derives benefit causing harm to other is called [ ]
a) parasitism b) Mutualism c) Insectivorous d) None

82. Select the wrong match [ ]
a) Nitrogen fixing bacteria - Root nodules
b) Hermit crab - Sea anemones .
c) Parasite - Host
d) Lichens - Parasitism

83. Insectivorous plants are [ ]
a) Autotrophic b) Chemoautotrophic c)Saprophytic d) None

84. If a solution outside a cell is made more concentrated so that the cell loses water to its environment and shrinks, the external solution is said to be _____ to the cell contents . [ ]
a) Hypotonic b) Isotonic c) Hypertonic d) In equilibrium

85. An animal cell bursts having behind the 'ghosts ' when placed in a solution that is. [ ]
a) Isotonic b) Hypotonic c) Hypertonic d) Salt solution

86. Roots can absorb minerals from the soil, when they are in [ ]

a) Solid state b) Liquid state c) Ionic state d) Gaseous state

87. Which of the following is an nitrogen –fixing soil bacterium [ ]

a) Rhizobium b) Cyanobacteria c)Arch bacterium d) All the above

88. Nepenthes is a [ ]

a) Producer b) Consumer c) Decomposer d) Both a and b

89. Insectivores plants kill insects because [ ]

a) Insects eat their leaves b) Insects eat their fruits

a) They are heterotrophs d) They obtain nitrogen from killed insects

90. Natural openings in leaves which participate in transpiration are [ ]

a) Stomata b) Air spaces c) Root hairs d) Leaf hairs

91. Which two phenomenon's helps to pull the water upwards by several meters in tall trees and help to supply water to the leaves in tall trees . [ ]

a) Root pressure and transpiration b) Adhesive and root pressure

c) Both 'a' and 'b' d) None

92. Snails have teeth like structures tongue called [ ]

a) Radula b) Suckers c) Antennae d) None

93. Two types of heterotrophic nutrition are [ ]

a) Auto trophic and saprozoic b) Autotrophic and holozoic

c) Saprozoic and holozoic d) none of the above

94. Match the following [ ]

i) Pseuclopodia	a) Earthworm
ii) Tentacles	b) Leech
iii) Long proboscis	c) Hydra
iv) Anticoagulant	d) Amoeba
v) Soil organic matter	e) Butterflies

a)d ,c e, b , a b) a , b , c , d , e 3) c, d ,c ,b a 4)c , b ,a , d ,e

95. Select wrong match [ ]

a) Caterpillar larva of silk worm -Mulberry leaves

b) Male mosquitoes -Plant Juices

c) Female mosquito -Vertebrate blood

d) Adult butterfly -Leaves

96. The process of converting complex non –diffusible molecules to simple diffusible molecules is called as [ ]

a) Digestion b) Respiration c) Oxidation d) Excretion

97. Enzymes are [ ]

a) Very specific in their action b) Non – specific c) Act on any substrate d) All the above

98. Match the following [ ]

i) Carbohyalrates	a) Protease
ii) Proteins	b) Amylases
iii) Fats	c) Intracellular digestion
iv) Protozoans	d) Lipases

a) b, a, d, c b) a, b, c, d c) d, c,b,a d) c, d, a, b

99. Muscle cells in digestive system help in [ ]
a) Secrete enzymes b) Movement and mixing of food
c) Secrete mucous d) Absorption

100. Select the correct statement [ ]
a) Cellulose is the mayor enzyme required to digist herbivores diet
b) Cellulose is present in human intestine
c) Herbivores need not take the help of micro organisms to digest cellulose
d) Cellulose help in the digestion of chlorophyll

101. Canine teeth are absent in herbivores because [ ]
a) They can grnd the food throughly b) To nip the grass and plants
c) They eat grass d) They do not eat meat

102. After swallowing ,animals like cow, ox, buffalo bring back the food into the mouth and chew leisurely .This is called as [ ]
a) Caprophagy b) Rumination c) Digestion d) None

103. The true stomach of ruminants where most of the digestion takes place is [ ]
a) Rumen b) Omasum c) Reticulum d) Abomasum

104. Which is false for nutrition in amoeba [ ]
a) Omnivorous b) Pseudopdia feeder c) Reticulum d) Abomasum

105. Animals eating own faecal matter are [ ]
a) Sanguvorous b) coprophagous c) Frugivorous d) Detrivorous

106. Cub chewing animals are known as [ ]
a) Frugivores b) Sanguivores c) Cannibals d) Ruminants

107. Substrate of amylase enzyme is [ ]
a) Starch b) Protein c) Fat d) Cane sugar

108. Ptyalin is secreted by [ ]
a) salivary gland b) Prostate gland c) Stomach d) Pancreas

109. Taking in the food by an animal is called [ ]
a) Ingestion b) Absorption c) Assimilation d) Egestion

110. Muscular contraction of stomach are known as [ ]
a) Circulation b) Egestion c)Peristalsis d) Absorption

111. Cell membrane is [ ]
a) Permeable b) Inpermeable c)Semi- permeable d)Selectively permeable

112. Seeds swell when placed in water because of [ ]
a) Osmosis b) Inbibition c)Hydrolysis d) Plasmolysis

113. Plants die due to wilting when [ ]
a) Pholem is blocked b)Xylen is blocked
c) Few roots are broken d) Stomata open

114. Saprophytes [ ]
a) Can absorb liquidised food ctriect from dead matter
b) Can not synthesize their own protoplasm
c) Can not synthesize any complex food
d) Need help of enzymes for absorption

115. Dental formula of adult man is [ ]
a) $\frac{2,1,2,3}{2,1,2,3}$ b) $\frac{2,1,2,2}{2,1,2,2}$ c) $\frac{2,1,2,3}{2,1,2,4}$ d) $\frac{2,1,3,2}{2,1,3,2}$

116. Rumen of a cow is a part of its [ ]
a) Intestine b) Stomach c) Caecum d) Rectum

117. Ruminant digestion is a good example for [ ]
a) Symbiosis b) Parasifism c) Predator d) Insectivorous

118. Caprophagy is seen in [ ]
a) Cow b) Rabbit c) Goat d) Ox

119. Pick out the wrong statement [ ]
a) Blood glucose levels in ruminants are low when compared with other animals
b) Ruminant obtain protein from diet
c) Fatty acids are the main fuels for energy production
d) Micro – organisms in the ruminant stomach ferment glucose and produce fatty acids

120. The enzyme cellulose for the digestion of cellulose is secreted by [ ]
a) Intestinal bacteria b) Large intestine
c) Vermiform appendsc d) Small intestine

121. Read the following statement 'A' and 'B' [ ]
A. The human small intestine is the longest portion in the alimentary canal
B. Absorption of digested food requires a very large surface area
Indentify the correct choice on the two statements
a) Statement A is correct , B is wrong b) Statement A and B are both correct
c) Both the statements are wrong d) Statement B is correct , A is wrong

122. Emulsification is the function of [ ]
a) Protease b) Esterases c) Lipases d) Bile

123. If the chyme of a person who had orally consumed only starch as food is analylsed before it enters duodenum , it will show the presence of [ ]
a) Maltose and glucose b) Dextrin and maltose
c) Starch ,dextrin ,glucose d) Starch , dextrin , maltose .

124. Villi are present in the [ ]
a) Large intestine b) Small intestine c) Colon d) Stomach

125. Which of the following is both exocrine and endocrine gland . [ ]
a) Liver b) Pancreas c) Thyroid d) Adrenal

126. The total number of canines in the permanent dental set of humans is [ ]
a) 4 b) 6 c)12 d) 8

127. Hcl of gastric juice [ ]
a) Kills bacteria only b) Destroys the structure of protein
c) Both d) None

128. Select the wrong statement [ ]
a) Food that enters duodenum is chyme
b) Pyloric sphincter allows only small quantities of food into duodenum at a time
c) Liver is the largest digestive gland . d) Bile facilitates the digestion of proteins

129. Vestigial organ is [ ]
a) Colon b) Rectum c) Appendix d) Stomach

130. Select wrongly matched [ ]
a) Lipase $\rightarrow$ lipids $\rightarrow$ Fatty acids and glycerol.
b) Pepsin $\rightarrow$ Proteins $\rightarrow$ peptones , proteoses
c) Enterokinase $\rightarrow$ Trypsiogen $\rightarrow$ Trypsin d) Renin $\rightarrow$ Sugar $\rightarrow$ Glucose .

131. Kidney of a mannal resembles contractile vacuole of amoeba in expelling out [ ]
a) Salt b) Glucose c) Excess water d) Urea and uric acid

132. Ammonia is the chief nitrogenous excretory material in [ ]
a) Mosquitoes b) Fowl c) Fish d) Man

133. Major nitrogenous waste products in ureotelic animals lilke rabbit and other mammal is [ ]
a) Uric acid b) Urea c) Ammonia d) Amino acids .

134. Two examples in which nitrogenous waster are excreted fro body in the form of uric acid are [ ]
a) Reptiles and birds b) Mammals and Birds
c)Insects and mammals d) Amphibians and birds

135. Match the following and select right option . [ ]
i) Cinchona officianlis a) Caffeine
ii) Nicotiana tobacum b) Quinine
iii) Papower somniferum c) Reserpine
iv) Rauwolfia serpentine d) Nicotine
v) Coffea Arabica e) Morphine
a) d, b ,e c, a b) b ,d , e , c , a c) a , c ,e , b, d d) a , c, e ,d , b

136. The latex of hevea braziliensis gives [ ]
a) Rubber b) Alkaloids c) Oil d) Dyes

137. In flatworms like planaria the excretory organs are [ ]
a) Flame cells b) Nephridia c) Kidney d) Amphibian tubules

138. Select the wrong statement [ ]
a) In arthropods , malphigian tubules participate in excretion
b) In protozoa ,coelenterate and echinodermata dissolved waster are eliminated by diffusion through body surface
c) In all vertebrates , kidneys are the excretory organs .
d) The CO_2 released in photosynthesis is used as raw material in respiration

139. Fiteration of blood occurs in [ ]
a) Bowman's capsule b) Loop of Henle c) Neck of nephron d) Renal papillae

140. Bowman's capsule occurs in [ ]
a) Pancreas b) Kidneys c) Pituitary body d) Adrenal gland

141. Blood vessels leading into a glomerulus is called [ ]
a) Afferent arteriole b) Efferent arteriole c) Renal artery d) Renal vein

142. In mammals , the urinary bladder opens into [ ]
a) Uterus b) Urethra c) Vestibule d) Ureter

143. In which of the following the gut expels out excretory waste along with faeces [ ]
a) Human being b) Dog c) Arthropods d) Earthworm

144. Malpighi an body is constituted by [ ]
a) Glomerulus only b) Glomerulus and Bowman's capsule
c) Glomerulus and efferent vessel d) Glomerulus and afferent vessel

145. The yellow colour of urine is due to [ ]
a) Uric acid b) Urea c) Urochrome d) BIlirubin

146. Functional unit of kidney is [ ]
a) Nephron b) Nephritis c) Neuron d) Loop of henlie

147. The amount of blood filtrate per minute by kidney is [ ]
a) 500 ml b) 600 ml c) 120 ml d) 25 ml

148. In children urination is a [ ]
a) Voluntary action b) Involuntary action c) Both d)None

149. Blood dialysis is also called artificial [ ]
a) Lung b) Heat c) Kidney d) Liver

150. In mammals urinary bladder opens into [ ]
a) Uterus b) Urethra c) Vestibule d) Ureter

Unit – 4
World of energy

151. The potential ability to perform work by a system is called [ ]
a) Work b) Strength c) Energy d) Heat

152. Radiant energy is used for [ ]
a) Photosynthesis b) Visual activity
c) For communication in some animals d) All the above

153. The energy stored in the glucose molecule is released during oxidation and is used for the synthesis of [ ]
a) ATP molecule b) ADP c)AMP d) None

154. During shivering ,heat is generated due to [ ]
a) More blood flow b) Rapid heart beat
c) Contraction of muscles d) Digestion of food

155. In biological system electrical energy is generated due to the differences in the concentration of ions across the membrane and used for [ ]
a) Neuronal activities b) Excretion c) Metabolism d) None

156. According to the laws of thermodynamics [ ]
a) Energy can neither be created nor destroyed
b) Energy can be transformed from one form to other
c) Energy transformations are not 100% efficient d) All the above

157. Energy yield from one gram carbohydrates and one gram of fat is [ ]
a) 4.k.cal and 9.4 k. Cal b) 9.4 k. Cal and 4.k cal
c) 5.4 k .cal and 6 k cal d) 6.k cal and 5.4 k cal

158. The word used for synthesis of chemical substance is [ ]
a) Anabolism b) Catabolism c) Metabolism d) None

159. The word used for degradation of a chemical substance is [ ]
a) Catabolism b) Anabolism c) Metabolism d) None

160. Movement of substances for higher concentration to lower concentration is called [ ]
a) Active transport b) Passive transport c) Both 'a' and 'b' d) None

161. Movement of substances against the concentration gradient is called [ ]
a) Active transport b) Passive transport c) Blood transport d)All

162. ATP energy is used in [ ]
a) Active transport b) Passive transport c) Both 'a' and 'b' d) None

163. In biological systems electrical potentials are generated due to difference in concentration [ ]
a) Sodium and potassium ions across the membrane
b) Sodium and phosphate ions across the membrane

c) Calcium and phosphate ions across the membrane
d) Magnesium and calcium ions across the membrane

164 The rate of metabolism observed when an organism is resting and relaxed at normal temperature is called as [ ]
a) Catabolic rate b) Anabolic rate c) Basal metabolic rate d)Heart rate

165. BMR can be determined by an instrument called [ ]
a) Spirometer b) Thermometer c) Barometer d) Calorimeter

166. Per unit weight of the body BMR is high in [ ]
a) Large animals b) Small animals c) Moderate animals d) None

167. The primary source of energy in ecosystem is [ ]
a) Sun light b) Heat c) Cold d) Electricity

168. The primary producers in an ecosystem are [ ]
a) Plants b) Animals c) Decomposers d)None

169. The rate at which the organic matter is produced by the plants in an ecosystem using solar energy is called [ ]
a) Primary productivity b) Secondary productivity
c) Net primary productivity d) Net secondary productivity

170. The rate of which the organic matter its stored in the plant parts is called [ ]
a) Primary productivity b)Secondary productivity
c)Net primary productivity d)Net secondary productivity .

171. The amount of energy present at each level in the food chain is called [ ]
a) Trophic level b) Food chain c) Food web d) None

172. The total amount of dry mass produced all the organisms in an ecosystem in given time period [ ]
a) Bio fuel b) Biomass c) Secondary productivity d) None

173. Wood , petroleum , Natural gas are called as [ ]
a) Bio fuels b) Biomass c) Both 'a' and 'b' d) None

174. The forest for the people by the people [ ]
a) Social forestry b) Agro forestry c) Industrial forest d)All the above

175. In marshy areas trees grown for energy plantation are [ ]
a) Avicinea b) Lecucina c) Eucalyptus d) Casuarina

176. Example of "petro –crops" [ ]
a) Calotropis procera b) Nilagiri c) Casuarina d) Avi cinea

177. The blend of alcohol and gasoline is called [ ]
a) Gasohol b)Sugar c) protein d) Petroleum

178. The large brown sea weeds are known as [ ]
a) Gasohol b) Bio fuels c) Kelps d) None

179. Molasses serve as a basic raw material for [ ]
a) Sugar Formation b) Salt formation c) Alcohol fermentation d) None

180. Synthesis of new molecules in a cell require the following energy [ ]
a) Mechanical b) Electrical c) ATP d) Heat

KEYSHEET

Unit-I

1) C	2) A	3) D	4) C	5) C
6) B	7) C	8) C	9) B	10) C
11) A	12) B	13) C	14) D	15) B
16) D	17) C	18) A	19) B	20) A
21) C	22) D	23) A	24) C	25) A
26) D	27) D	28) A	29) B	30) D
31) A	32) A	33) B	34) B	35) A
36) D	37) D	38) B	39) B	40) A
41) C	42) B	43) A	44) B	45) A
46) B	47) B	48) C	49) A	50) D
51) C	52) B	53) D	54) A	55) B
56) A	57) C	58) A	59) A	60) C
61) A	62) D	63) A	64) A	65) A
66) A	67) C	68) B	69) C	70) A
71) B	72) B	73) A	74) B	75) C
76) C				

Unit-II

77) C	78) B	79) B	80) B	81) A
82) D	83) A	84) C	85) A	86) A
87) A	88) C	89) B	90) C	91) A
92) D	93) D	94) A	95) D	96) A
97) A	98) A	99) B	100) A	101) D
102) B	103) D	104) D	105) B	106) D
107) A	108) A	109) A	110) C	111) C
112) B	113) B	114) A	115) A	116) B
117) A	118) B	119) B	120) A	121) B
122) D	123) D	124) B	125) B	126) A
127) C	128) D	129) C	130) D	131) C
132) C	133) B	134) A	135) B	136) A
137) A	138) D	139) A	140) B	141) A
142) B	143) C	144) B	145) D	146) A
147) C	148) B	149) C	150) B	

Unit-IV

151) C	152) D	153) A	154) C	155) A
156) D	157) A	158) A	159) A	160) B
161) A	162) A	163) A	164) C	165) A
166) B	167) A	168) A	169) A	170) C
171) A	172) B	173) A	174) A	175) A
176) A	177) A	178) C	179) C	180) c