Padasalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

- Padasalai's NEWS - Group
https://t.me/joinchat/NIfCqVRBNj9hhV4wu6_NqA

- Padasalai's Channel - Group
https://t.me/padasalaichannel

- Lesson Plan - Group
https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw

- 12th Standard - Group
https://t.me/Padasalai_12th

- 11th Standard - Group
https://t.me/Padasalai_11th

- 10th Standard - Group
https://t.me/Padasalai_10th

- 9th Standard - Group
https://t.me/Padasalai_9th

- 6th to 8th Standard - Group
https://t.me/Padasalai_6to8

- 1st to 5th Standard - Group
https://t.me/Padasalai_1to5

- TET - Group
https://t.me/Padasalai_TET

- PGTRB - Group
https://t.me/Padasalai_PGTRB

- TNPSC - Group
https://t.me/Padasalai_TNPSC

Ravi home tutions

1 MAEK TEST 1

11th Standard

Date : 19-Feb-20

Biology

Reg.No. : | | | | | | |

Exam Time : 01:00:00 Hrs

Total Marks : 50

50 x 1 = 50

1) Identify the Archaebacterium
(a) Acetobacter (b) Erwinia (c) Treponema (d) Methanobacterium

2) The correct statement regarding Blue green algae is
(a) lack of motile structures (b) presence of cellulose in cell wall (c) absence of mucilage around the thallus (d) presence of floridean starch

3) Living things are made of _____
(a) Organisms (b) Atoms (c) Organs (d) Cells

4) _____ are obligate aerobes.
(a) Streptococcus (b) Clostridium (c) Micrococcus (d) E. Coli

5) Who introduced the Gram staining method?
(a) Bergy (b) Christian Gram (c) Ehrenberg (d) Lederberg

6) Indicate the correct statement:
(a) Virion is a circular molecule of ss RNA without a capsid (b) Virion is a phage injects to linear DNA into the host cell (c) Virion is an intact infective virus particle, which is non - replicating outside a host cell (d) Virion!s discovered by l.W Randles

7) Transfer of DNA from one bacterium to another is called:
(a) Conjugation (b) Transformation (c) Transduction (d) Binary fission

8) Porin is present in the cell wall of _____.
(a) Virus (b) Mosquito (c) Housefly (d) Bacteria

9) The bacterial plasma membrane is made up of _____.
(a) Protein (b) Lipids (c) Lipoprotein (d) Carbohydrates

10) Plasmids occur in _____.
(a) Bacteria (b) Viruses (c) Chloroplast (d) Chromosome

11) Cup fungus belongs to _____ .
(a) zygomycetes (b) oomycetes (c) ascomycetes (d) actinomycetes

12) Which group of fungus is called as Sac fungi?
(a) Deuteromycetes (b) Zygomycetes (c) Ascomycetes (d) Oomycetes

13) Number of ascospores in an asci is _____ .
(a) 2 (b) 4 (c) 6 (d) 8

14) Which of following represent generation in pteridophytes?
(a) Prothallus (b) Thallus. (c) Cone (d) Rhizophore

15) The haploid number of chromosome for an Angiosperm is 14, the number of chromosome in its endosperm would be
(a) 7 (b) 14 (c) 42 (d) 28

16) Algae growing in snow are called _____ .
(a) Cryophytic (b) Epiphytic (c) Terrestrial (d) Epizoic

17) Algae grown on the surface of aquatic plants are called _____ .
(a) Cryophytic (b) Epiphytic (c) Terrestrial (d) Epizoic

18) Match the following
A) Unicellular motile - 1. Volvox
B) Unicellular non - motile - 2. Hydrodictyon
C) Colonial motile - 3.Chalmydomonas
D) Colonial non - motile - 4.Chlorella

(a) A - 3, B - 4, C - 1, D - 2 (b) A - 4, B - 3, C - 2, D - 1 (c) A - 1, B - 2, C - 3, D - 4 (d) A - 4, B - 3, C - 2, D - 1

19) When the root is thick and fleshy, but, does not taken a definite shape, it said to be

(a) Nodulose root (b) Tuberous root (c) Monilliform root (d) Fasiculated root

20) Example for negatively geotropic roots

(a) Ipomoea, Dahlia (b) Asparagus, Ruellia (c) Vitis, Portulaca (d) Avicennia, Rhizophora

21) Foliar roots are seen in _____

(a) Bryophyllum (b) Dendrobium (c) White cotton (d) Pandanus

22) Stilt roots are seen in _____

(a) Zea mays (b) Delonix regia (c) Begonia (d) Ficus

23) Identify the wrong statement

(a) Branches of stem arise endogenously (b) Stem bears multicellular hairs (c) Stem is positively phototropic (d) Stem bears floral buds

24) Musa is an example for_____.

(a) climber (b) runner (c) stolon (d) sucker

25) Eichhornia exhibit_____ type of stem modification

(a) stolon (b) offset (c) runner (d) sucker

26) Underground stems are generally called as_____

(a) root caps (b) root stocks (c) root pockets (d) root modification

27) In an inflorescence where flowers are borne laterally in an acropetal succession the position of the youngest floral bud shall be

(a) Proximal (b) Distal (c) Intercalary (d) Anywhere

28) A true fruit is the one where

(a) Only ovary of the flower develops into fruit (b) Ovary and calyx of the flower develops into the fruit (c) Ovary, calyx, and thalamus of the flower develops into the fruit (d) All floral whorls of the flower develop into fruit:

29) Which of the following is a flowering plant with nodules containing filamentous nitrogen fixing micro-organisms?

(a) Crotalaria juncea (b) Cycas revoluta (c) Cicer arietinum (d) Casuarina equisetifolia

30) Flowers are zygomorphic in

(a) Ceropegia (b) Thevetia (c) Datura (d) Solanum

31) Sequences of which of the following is used to know the phylogeny

(a) mRNA (b) rRNA (c) tRNA (d) Hn RNA

32) If mitotic division is restricted in G1 phase of the cell cycle then the condition is known as

(a) S Phase (b) G_2 Phase (c) M Phase (d) G_o Phase

33) In S phase of the cell cycle

(a) Amount of DNA doubles in each cell (b) Amount of DNA remains same in each cell (c) Chromosome number is increased (d) Amount of DNA is reduced to half in each cell

34) A group of organisms having similar traits of a rank is

(a) Species (b) Taxon (c) Genus (d) Family

35) Every unit of classification regardless of its rank is

(a) Taxon (b) Variety (c) Species (d) Strain

36) Cladogram considers the following characters

(a) Physiological and Biochemical (b) Evolutionary and Phylogenetic (c) Taxonimic and systematic (d) None of the above

37) Which of the following animals has a true coelom?

(a) Ascaris (b) Pheretima (c) Sycon (d) Taenia solium

38) The respiratory pigment in cockroach is

(a) Haemoglobin (b) Haemocyanin (c) Oxyhaemoglobin (d) Haemoerythrin

39) Pneumatic bones are seen in

(a) Mammalia (b) Aves (c) Reptilia (d) Sponges

40) The ciliated epithelium lines the

(a) Skin (b) Digestive tract (c) Gall bladder (d) Trachea

41) Prevention of substances from leaking across the tissue is provided by
(a) Tight junction (b) Adhering junction (c) Gap junction (d) Elastic junction

42) How many abdominal segments are present in male and female Cockroaches?
(a) 10, 10 (b) 9, 10 (c) 8, 10 (d) 9,9

43) Which of the following does not have an open circulatory system?
(a) Frog (b) Earthworm (c) Pigeon (d) Cockroach

44) Buccopharyngeal respiration in frog
(a) is increased when nostrils are closed (b) Stops when there is pulmonary respiration (c) is increased when it is catching fly (d) stops when mouth is opened.

45) Absorption of glycerol, fatty acids and monoglycerides takes place by
(a) Lymph vessels within villi (b) Walls of stomach (c) Colon (d) Capillaries within villi

46) First step in digestion of fat is
(a) Emulsification (b) Enzyme action (c) Absorption by lacteals (d) Storage in adipose tissue

47) Asthma is caused due to
(a) bleeding in the pleural cavity (b) infection of nose (c) damage of diaphragm (d) infection of lungs

48) The Oxygen Dissociation Curve is
(a) sigmoid (b) straight line (c) curved (d) rectangular hyperbola

49) At the venous end of the capillary bed, the osmotic pressure is
(a) Greater than the hydrostatic pressure (b) Result in net outflow of fluids (c) Results in net absorption of fluids (d) No change occurs

50) A patient's chart reveals that he has a cardiac output of 7500mL per minute and a stroke volume of 50 mL. What is his pulse rate (in beats/min)?
(a) 50 (b) 100 (c) 150 (d) 400

****

Ravi home tutions

1 MARK TEST 2

11th Standard

Date : 19-Feb-20

Biology

Reg.No. : | | | | | | |

Exam Time : 01:00:00 Hrs

Total Marks : 50

1) Nerium exhibits_____phyllotaxy.
(a) ternate (b) whorled (c) decussate (d) alternate

2) Ashwagandha refers to .....
(a) Datura sp (b) Withania sp (c) Atropa (d) Capsicum

3) Photosynthetic roots are present in _____.
(a) Viscum (b) Tinospora (c) Cassytha (d) Orabanche

4) Which ofthe following is advantageous for the animals in locomotion, food capture etc.?
(a) asymmetrical (b) radially symmetrical (c) biradially symmetrical (d) bilaterally symmetrical

5) _____is a catalytic RNA.
(a) mRNA (b) Ribozyme (c) Ribonuclease (d) rRNA

6) _____ are superior among all living things as they have an additional ability of self-consciousness.
(a) Animals (b) Plants (c) Humans (d) Monera

7) Which of the following has open type of circulation?
(a) frogs (b) garden lizard (c) man (d) cockroach

8) Sucrose is a
(a) Polysaccharide (b) Disaccharide (c) Monosaccharide (d) Triglyceride

9) Spiral arrangement of leaves show vertical rows called_____.
(a) decussate (b) bifarious (c) orthostichies (d) distichous

10) A branched corymb is called_____.
(a) Compound corymb (b) Homogamous head (c) Heterogamous head (d) Disc florets

11) Parallel venation is the characteristic feature of_____.
(a) angiosperms (b) gymnosperms (c) dicots (d) monocots

12) Mostly perennial herbs persisting by means of a sympodial rhizome in _____.
(a) Liliaceae (b) Polygonatum (c) Bulb (d) Corm

13) _____ are obligate aerobes.
(a) Streptococcus (b) Clostridium (c) Micrococcus (d) E. Coli

14) Palmately parallel divergent venation is seen in_____.
(a) Carica papaya (b) Borassusflabellifer (c) Zizyphus (d) Cinnamomum

15) _____are also known as metachromatic granules.
(a) Sulphur granules (b) Nucleus (c) Pore complex (d) Perinuclear space

16) What is the fruit in Petunia?
(a) Didynamous (b) Berry (c) Capsule (d) Endospermous

17) What is the name of Lily family?
(a) Liliaceae (b) Polygonatum (c) Bulb (d) Corm

18) _____protects the end of the chromosomes from damage
(a) Satellite (b) Kinetochore (c) Primary constriction (d) Telomere

19) What is the seed of Solanaceae?
(a) Didynamous (b) Berry (c) Capsule (d) Endospermous

20) _____is an important unit of cell which control II activities of the cell.
(a) Sulphur granules (b) Nucleus (c) Pore complex (d) Perinuclear space

21) Indicate a macromolecule:
(a) Amino acid (b) Protein (c) Nucleotide (d) Glucose

22) Which is not a pyrimidine base?

(a) Cytosine (b) Uracil (c) Guanine (d) Thymine

23) In Greek, 'taxis' means_____.

(a) crowding (b) spreading (c) arrangement (d) attachment

24) _____ at the centre of the head are tabular and bisexual.

(a) Compound corymb (b) Homogamous head (c) Heterogamous head (d) Disc florets

25) Mad cow disease is caused by _____

(a) Prions (b) Virion (c) Viroid (d) Phage

26) Source of illumination for image formation in dark field microscope is:

(a) Electron (b) ultra violet light (c) X- rays (d) Visible light

27) The word cell was first used by:

(a) Robert brown (b) Robert Hooke (c) Zemike (d) Robert schwann

28) Give an example for foliar buds _____.

(a) Agave (b) Bryophyllum (c) Citrus (d) Duranta

29) How many times is the genetic material replicated during meiosis?

(a) Twice (b) Once (c) Four times (d) None of the above

30) Prickles are seen in .....

(a) Solanum tuberosum (b) Solanum xanthocarpum (c) Solanum nigrum (d) Solanum trilobatum

31) In ..... of solanaceae flowers are zygomorphic.

(a) Physalis (b) Schizanthus (c) Salpiglossis (d) Capsicum

32) Idea of cell theory was first proposed by:

(a) Matthias Schleiden (b) Theodor schwann (c) H.J. Dutrochet (d) Rudolf Virchow

33) In the plant cell, cytokinesis occurs by _____

(a) Separation of the cytoplasm from the periphery to central region.

(b) Separation of the cytoplasm throughout the equatorial plane simultaneously.

(c) Separation of the cytoplasm from cell centre to its periphery

(d) Following of cytoplasm from two side at right angles to the plane of spindle pole

34) Sum total of constructive reactions is called as _____

(a) Anabolism (b) Catabolism (c) Metabolism (d) Embolism

35) Which is not a class of Gymnosperm?

(a) Lycopodia (b) Cycadopsida (c) Coniferopsida (d) Gnetopsida

36) More than 6 tepals are seen in .....of Liliaceae.

(a) Paris (b) Allium (c) Gloriosa (d) Scilla

37) Which of them has Haustorial roots?

(a) Cuscuta (b) Trapa (c) Tinospora (d) Avecinia

38) Cytokinesis is generally, but not always, seen in mitosis. If cells undergo mitosis and do not follow cytokinesis then it would result in:

(a) Cells with abnormal small nuclei (b) Ensuring genetic homogeneity of cell (c) A cell with a single large nucleus (d) A cell with two or more nuclei

39) The number of sugar units present in oligosaccharides:

(a) 14 to 15 (b) 6 to 8 (c) 2 to 10 (d) 11 to 12

40) Match the following.

A) Malic acid	i) Mimosa pudica
B)Tannins	ii) Apple
C) Raphide	iii)Dandelionstem
D) Heavy metals	iv) Dieffenbachia
E) Latex	v) Mustard

(a) A - i), B - ii), C - iii), D - iv), E - v) (b) A - v), B - iv), C - iii), D - ii), E - i) (c) A - v), B - i), C - iii), D - iv), E - ii) (d) A - li), B - i), C - iv), D -v), E - iii)

41) Coralloid roots of cycas have symbiotic association with_____

(a) Blue green algae (b) Mycorrhiza (c) Euglena (d) Rhizobium

42) Phase contrast microscope was invented by:

(a) Zemike (b) Robert brown (c) Sigmondy (d) Robert hooke

43) Pinus roots are in symbiotic relationship with _____

(a) Blue green algae (b) Mycorrhiza (c) Euglena (d) Rhizobium

44) Detection of changes in their living place by organisms is called

(a) Interactions (b) Consciousness (c) Autotropic (d) Meterotropic

45) _____ type of inflorescence exhibits single kind of florets.

(a) Compound corymb (b) Homogamous head (c) Heterogamous head (d) Disc florets

46) The inflorescence possesses both types of florets _____.

(a) Compound corymb (b) Homogamous head (c) Heterogamous head (d) Disc florets

47) Assertion (A): Dead space is not involved in gaseous exchange.

Reason (R): Some of the inspired air never reaches the gas exchange areas but fills the respiratory passages where exchange of gases does not occur. This air is called dead space.

(a) (R) is correct but (A) is wrong

(b) Both (A) and (R) are wrong

(c) (A) is correct but (R) is wrong

(d) (A) is correct and (R) explains (A)

48) Assertion (A): The Prokaryotes which have the ability to grow in extreme condition.

Reason (R): Prokaryotes can grow in volcano vents, hot springs and polar ice caps, hence are called extremophites. They are capable of synthesizing their food without sunlight and oxygen by utilizing hydrogen sulphide and other chemicals from the volcanic vents.

(a) Both (A) and (R) are wrong

(b) (A) is correct and (R) explains (A)

(c) (A) is wrong and (R) is correct

(d) (R) is wrong and (A) is correct

49) Assertion (A): Cockroaches can survive without a head.

Reason (R): A cockroach can live for a week without its head. Due to their open circulatory system, and the fact that they breathe through little holes on each of their body segments.

(a) (A) is correct but (R) is wrong

(b) Both (A) and (R) are wrong

(c) (A) is correct and (R) explains (A)

(d) (R) is correct but (A) is wrong

50) Assertion (A): Liver fluke is hermaphrodite or monoecious.

Reason (R): Schistosoma is commonly called hydatid worm.

(a) Both (A) and (R) are correct

(b) (A) and (R) are correct but (R) is not a correct explanation of the (A)

(c) (A) is correct, (R) is wrong

(d) Both (A) and (R) are wrong

****

RAVI MATHS TUITION CENTER, NEAR VILLIVAKKAM RLY STATION, CHENNAI – 82.
WHATSAPP - 8056206308

BOTANY MODEL 1

Date : 19-Feb-20

11th Standard

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

8 x 1 = 8

1) Identify the correctly matched pair

(a) Actinomycete - Late blight (b) Mycoplasma - Lumpy jaw (c) Bacteria - Crown gall (d) Fungi - Sandal spike

2) Endosperm in Gymnosperm is formed

(a) At the time of fertilization. (b) Before fertilization. (c) After fertilization. (d) Along with the development of embryo .

3) Bryophyllum and Dioscorea are example for

(a) Foliar bud, apical bud (b) Foliar bud, cauline bud (c) Cauline bud, apical bud (d) Cauline bud, foliar bud

4) A true fruit is the one where

(a) Only ovary of the flower develops into fruit (b) Ovary and calyx of the flower develops into the fruit (c) Ovary, calyx, and thalamus of the flower develops into the fruit (d) All floral whorls of the flower develop into fruit:

5) Flowers are zygomorphic in

(a) Ceropegia (b) Thevetia (c) Datura (d) Solanum

6) Match the columns and identify the correct option:

	Column I		Column II
A	Thylakoids	1.	Disc-shaped sacs in Golgi apparatus
B.	Cristae	2.	Condensed structure of DNA
C.	Cisternae	3.	Flat membranous sacs in stroma
D	Chromatin	4.	Infoldings in mitochondria

(a)

A	B	C	D
3	4	2	1

(b)

A	B	C	D
4	3	1	2

(c)

A	B	C	D
3	4	1	2

(d)

A	B	C	D
3	1	4	2

7) Anastral mitosis is the characteristic feature of

(a) Lower animals (b) Higher animals (c) Higher plants (d) All living organisms

8) Grafting is successful in dicots but not in monocots because the dicots have

(a) Vascular bundles arranged in a ring (b) Cambium for secondary growth (c) Vessels with elements arranged end to end (d) Cork cambium

ANSWER 4

4 x 2 = 8

9) Why do farmers plant leguminous crops in crop rotations/mixed cropping?

10) Do you agree with the statement 'Bryophytes I need water for fertilization'? Justify your answer.

11) Compare pinnate unicostate and palmate multicostate venation.

12) Write any three significance of mitosis.

13) List out the non-photosynthetic parts of a plant that needs a supply of sucrose?

14) When there is plenty of light and the higher concentration of O_2, what kind of pathway does the plant undergo? Analyse the reasons.

ANSWER 3

3 x 3 = 9

15) How symbiotic relationship is executed in mycorrhiza?

16) Compare the anatomical features between Dicots & Monocots.

17) Make a tabular column showing types of terrestrial plants and their environmental adaptation with examples

18) Write systematic position of liliaceae based of Bentham and Hooker Classification?

19) Draw the Structure of Peroxisome's.

ANSWER ALL

2 x 5 = 10

20) Give a general account on lichens.

21) Differentiate cytokinesis in plant cells and animal cells.

22) Explain sclereids with their types.

23) A transverse section of the trunk of a tree shows concentric rings which are known as growth rings. How are these rings formed? What is the significance of these rings?

FOR ANSWERS VIEW MY YOUTUBE CHANNEL NAME - SR MATHS
OR WHATSAPP - 8056206308 FOR LINK

****

RAVI MATHS TUITION CENTER, NEAR VILLIVAKKAM RLY STATION, CHENNAI – 82.
WHATSAPP - 8056206308

ZOOLOGY MODEL 1

Date : 19-Feb-20

11th Standard

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

8 x 1 = 8

1) A living organism is differentiated from non- living structure based on
(a) Reproduction (b) Growth (c) Metabolism (d) Movement

2) The symmetry exhibited in cnidarians is
(a) Radial (b) Bilateral (c) Pentamerous radial (d) Asymmetrical

3) The main function of the cuboidal epithelium is
(a) Protection (b) Secretion (c) Absorption (d) Both (b) and (c)

4) The clitellum is a distinct part in the body of earthworm Lampito mauritii, it is found in?
(a) Segments 13 - 14 (b) Segments 14 - 17 (c) Segments 12 - 13 (d) Segments 14 - 16

5) Choose the incorrect sentence from the following:
(a) Bile juice emulsifies the fat. (b) Chyme is a digestive acidic food in the stomach. (c) Pancreatic juice converts lipid into fatty acid and glycerol. (d) Enterokinase stimulates the secretion of pancreatic juice.

6) Breathing is controlled by
(a) cerebrum (b) medulla oblongata (c) cerebellum (d) pons

7) What is the function of lymph?
(a) Transport of O_2 into brain (b) Transport of CO_2 into lungs (c) Bring interstitial fluid in blood (d) Bring RBC and WBC in lymph node

8) Concentration of urine depends upon which part of the nephron
(a) Bowman's capsule (b) Length of Henle's loop (c) P.C.T. (d) Network of capillaries arising from glomerulus

ANSWER 4

4 x 2 = 8

9) Differentiate between probiotics and pathogenic bacteria

10) Why are spongin and spicules important to a sponge?

11) Some epithelia are pseudostratified. What does this mean?

12) What characteristics are used to identify the earthworms?

13) Why are villi present in the intestine and not in the stomach?

14) Name the respiratory organs of flatworm, earthworm, fish, prawn, cockroach and cat.

ANSWER 3

3 x 3 = 9

15) List any five salient features of the family Felidae.

16) Compare Schizocoelom with enterocoelom.

17) Differentiate between elastic fibres and elastic connective tissue.

18) Write the types of respiration seen in frog.

19) Bile juice contains no digestive enzymes, yet it is important for digestion. Why?

ANSWER 2

2 x 5 = 10

20) What is the role of Charles Darwin in relation to concept of species

21) Write the classification of connective tissue and their functions.

22) How respiration takes place in cockroach?

23) Diffusion of gases occurs in the alveolar region only and not in any other part of the respiratory system. Discuss

****

RAVI MATHS TUITION CENTER, NEAR VILLIVAKKAM RLY STATION, CHENNAI – 82.
WHATSAPP - 8056206308

BOTANY MODEL 2

Date : 19-Feb-20

11th Standard

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

8 x 1 = 8

1) Basidiomycetes do not possess this feature.
   (a) Clamp connection (b) Club Fungi (c) Dolipore septum (d) Lack sexual reproduction

2) Bacterial cell wall contains _____
   (a) peptidoglycan (b) glucose (c) flagellin (d) chitin

3) Unifoliate leaf is found in _____
   (a) Pea (b) Citrus (c) Royal palm (d) Oil palm

4) _____ species is the basic unit of evolutionary process.
   (a) Davis and Heywood (b) Simpson (c) carolus Linnaeus (d) Stebbins

5) Inflorescence of spikes in _____.
   (a) Ruscus (b) Similax (c) Yucca (d) Aloe

6) The term protoplasm was coined by_____.
   (a) A Purkinje (b) Mohl (c) Schultze (d) Felix

7) _____central part of the centriole is called hub, is connected to the tubules.
   (a) Glyoxysome (b) Microbodies (c) Sphaerosome (d) Centrioles

8) Fungi and other microbes synthesizes a number of _____
   (a) Water (b) Hydrogen (c) Organic compounds (d) Primary metabolites

4 x 2 = 8

9) How do living things grow?

10) Name some eminent algologists

11) What are geophytes?

12) Mention the types of special inflorescence.

13) Define Taxonomy.

14) Name the two kinds of electron microscopes

3 x 3 = 9

15) Briefly discuss on five kingdom classification, Add a note on merits and demerits.

16) Discuss the process of reproduction.

17) What are the three types of sexual reproduction occur in algae?

18) Explain the different types of placentation with example.

19) Distinguish between prokaryotes and eukaryotes.

20) Explain the insectivorous mode of nutrition in angiosperms?

2 x 5 = 10

21) List out some plant diseases caused by Bacteria.

22) Write the similarities and differences between
   (i) Avicennia and Trapa.
   (ii) Banyan and Silk cotton.
   (iii) Fusiform and Napiform root.

23) Give the floral characters of Clitoria ternatea.

24) Briefly outline the classification of enzymes.

****

RAVI MATHS TUITION CENTER, NEAR VILLIVAKKAM RLY STATION, CHENNAI – 82.
WHATSAPP - 8056206308

ZOOLOGY MODEL 2

Date : 19-Feb-20

11th Standard

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

8 x 1 = 8

1) The word Taxonomy was coined by _____ .
   (a) Linnaeus (b) Candolle (c) Aristotle (d) John Ray

2) Choose the correct statement with regard to Sponges.
   i) They have a opening called spongocoel.
   ii) They reproduce asexually by gemma formation.
   iii) Nutrition is intracellular.
   iv) Canal system is present
   (a) ii & iii (b) iii & iv (c) i only (d) All the above

3) Microvilli and Goblet cells are the modifications of
   (a) cuboidal epithelium (b) columnar epithelium (c) squamous epithelium (d) ciliated epithelium

4) _____ helps in digestion in cockroach.
   (a) Malpighian tubules (b) Hepatic caecae (c) Rectum (d) Crop

5) Sphincter of Oddi is seen between _____
   (a) ileum and jejunum (b) small intestine and large intestine (c) bile duct and duodenum (d) pancreatic duct and bile duct

6) Painful respiration is called _____
   (a) Dyspnoea (b) Narcosis (c) Hypoxia (d) Decompression sickness.

7) Choose the wrong statement:
   (a) RBC are biconcave in shape (b) There are about 5-5.5 million RBC in 1 cubic mm of blood. (c) The RBC's are devoid of Mitochondria, Ribsosomes etc (d) Liver is the graveyard of RBC

8) The ureter, blood vessels enter the kidney through_____
   (a) Hilum (b) Renal columns of Bertini (c) Hilus (d) Renal pelvis

ANSWER 4

6 x 2 = 12

9) Why mule is sterile in nature?

10) What are the four characteristics common to most animals

11) Differentiate white adipose tissue from brown adipose tissue.

12) What are earthworm casts?

13) Name the enzyme that catalyses the bicarbonate formation in RBCs.

14) Differentiate cortical from medullary nephrons

ANSWER 3

5 x 3 = 15

15) Concept Mapping - Use the following terms to create a concept map that shows the major characteristic features of the phylum nematode: Roundworms, pseudocoelomates, digestive tract, cuticle, parasite, sexual dimorphism.

16) Name any four important functions of epithelial tissue and provide at least one example of a tissue that exemplifies each function.

17) Differentiate between peristomium and prostomium in earthworm.

18) List the chemical changes that starch molecule undergoes from the time it reaches the small intestine.

19) Why is pneumonia considered a dangerous disease?

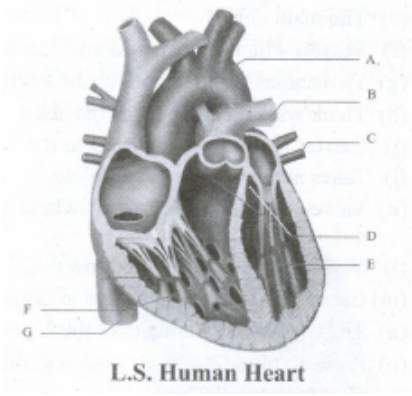
ANSWER 2

4 x 5 = 20

20) What are the rules of Nomenclature?

21) Sketch a flow chart to show the path way of air flow during respiration.

22) Name and Label the given diagrams to show A, B, C, D, E, F, and G



L.S. Human Heart

23) What is the function of antidiuretic hormone? Where is it produced and what stimuli increases or decreases its secretion?

****

RAVI MATHS TUITION CENTER, NEAR VILLIVAKKAM RLY STATION, CHENNAI – 82.
WHATSAPP - 8056206308

BOTANY MODEL 3

Date : 19-Feb-20

11th Standard

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

8 x 1 = 8

1) Consider the following statements:
In spring season vascular cambium
i. is less active.
ii. produces a large number of xylary elements.
iii. forms vessels with wide cavities of these
(a) (i) is correct but (ii) and (iii) are not correct (b) (i) is not correct but (ii) and (iii) are correct (c) (i) and (ii) are correct but (iii) is not correct (d) (i) and (ii) are not correct but (iii) is correct.

2) The wood formed in spring season in called _____
(a) Hard wood (b) Soft wood (c) Early wood (d) Non porous wood

3) In a fully turgid cell
(a) DPD = 10 atm; OP = 5 atm; TP = 10 atm (b) DPD = 0 atm; OP = 10 atm; TP = 10 atm (c) DPD = 0 atm; OP = 5 atm; TP = 10 atm (d) DPD = 20 atm; OP = 20 atm; TP = 10 atm

4) Which of the following physical force is responsibl for ascent of sap?
(a) Imbibition (b) Capillary force (c) Transpiration pull and cohesion (d) Root pressure

5) Identify correct match:

1. Die back disease of citrus	(i) Mo
2. Whip tail disease	(ii) Zn
3. Brown heart of turnip	(iii) Cu
4. Little leaf	(iv) B

(a) 1(i i) 2 (ii) 3 (iv) 4 (i) (b) 1 (iii) 2 (i) 3 (iv) 4 (ii) (c) 1 (i) 2 (iii) 3 (ii) 4 (iv) (d) 1 (iii) 2 (iv) 3 (ii) 4 (i)

6) **Assertion (A):** Increase in Proton gradient inside lumen responsible for ATP synthesis
Reason (R): Oxygen-evolving complex of PS I located on thylakoid membrane facing Stroma, releases H^+ ions
(a) Both Assertion and Reason are True. (b) Assertion is True and Reason is False. (c) Reason is True and Assertion is False. (d) Both Assertion and Reason are False.

7) The number of ATP molecules formed by complete oxidation of one molecule of pyruvic acid is
(a) 12 (b) 13 (c) 14 (d) 15

8) Select the wrong statement from the following:
(a) Formative phase of the cells retains the capability of cell division. (b) In elongation phase development of central vacuole takes place. (c) In maturation phase thickening and differentiation take place. (d) In maturation phase, the cells grow further.

ANSWER 4

4 x 2 = 8

9) In which season the vessels of angiosperms are larger in size, why?

10) List out the non-photosynthetic parts of a plant that needs a supply of sucrose?

11) Write the role of nitrogenase enzyme in nitrogen fixation?

12) When there is plenty of light and the higher concentration of O_2, what kind of pathway does the plant undergo? Analyse the reasons.

13) Respiratory quotient is zero in succulent plants. Why?

14) What are the parameters used to measure growth of plants?

ANSWER 3

3 x 3 = 9

15) A timber merchant bought 2 logs of wood from a forest & named them A & B, The log A was 50 year old & B was 20 years old. Which log of wood will last longer for the merchant? Why?

16) The nitrogen is present in the atmosphere in huge amount but higher plants fail to utilize it. Why?

17) What are enzymes involved in phosphorylation and dephosphorylation reactions in EMP pathway?

18) What is plasticity?

ANSWER 2 2 x 5 = 10

19) A transverse section of the trunk of a tree shows concentric rings which are known as growth rings. How are these rings formed? What is the significance of these rings?

20) An artificial cell made of selectively permeable membrane immersed in a beaker (in the figure). Read the values and answer the following questions?

a. Draw an arrow to indicate the direction of water movement.

b. Is the solution outside the cell isotonic, hypotonic or hypertonic?

c. Is the cell isotonic, hypotonic or hypertonic?

d. Will the cell become more flaccid, more turgid or stay in original size?

e. With reference to artificial cell state, the process is endosmosis or exosmosis? Give reasons

21) Explain Cytochrome pump theory?

22) Explain Chemiosmotic theory.

****

Ravi home tutions

ZOOLOGY MODEL 3

11th Standard

Date : 19-Feb-20

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

8 x 1 = 8

1) Peyer's patches are seen in the _____
   (a) mouth (b) stomach (c) ileum (d) duodenum
2) In humans, digestion is
   (a) Intercellular (b) Intracellular (c) Extracellular (d) Both A and B
3) Insects respire through
   (a) body surface (b) trachea (c) gills (d) book lungs
4) Vocal cords occur in
   (a) Pharynx (b) Larynx (c) Glottis (d) Bronchial tube
5) Ventricular depolarisation is represented by_____in a ECG.
   (a) ST segment (b) T wave (c) QRS complex (d) PQ interval
6) What P indicates in ECG?
   (a) End of atrium systole (b) Starting of atrium systole (c) End of ventricle systole (d) Starting of ventricle systole
7) There are _____ pairs of thoracic nerves.
   (a) 8 (b) 5 (c) 1 (d) 12
8) Facial nerve is a_____nerve.
   (a) Sensory (b) Mixed (c) Motor (d) Efferent

ANSWER 4

6 x 2 = 12

9) What is BMI?
10) Define respiration.
11) What are basophils?
12) Which myofilament has the binding sites for calcium?
13) What is the significance of vitamin A in vision?
14) What is swarming in lac culture?

ANSWER 3

5 x 3 = 15

15) What is lymph? Write its function.
16) When a molecule or ion is reabsorbed from the lumen of the nephron, where does it go? If a solute is filtered and not reabsorbed from the tubule, where does it go?
17) How is the process of micturition altered by toilet training?
18) How does an isotonic contraction take place?
19) The choroid plexus secretes cerebrospinal fluid. List the function of it.

ANSWER 2

4 x 5 = 20

20) Explain the internal structure of the gut.
21) Differentiate hyperglycaemia from hypoglycaemia
22) Animal husbandry is the science of rearing, feeding and caring, breeding and disease control of animals. It ensures supply of proper nutrition to our growing population through activities like increased production and improvement of animal products like milk, eggs, meat, honey, etc.
    a. Poultry production depends upon the photoperiod. Discuss
    b. Polyculture of fishes is of great importance.
23) Explain the principle involved in PET scan

****

RAVI MATHS TUITION CENTER, NEAR VILLIVAKKAM RLY STATION, CHENNAI – 82.
WHATSAPP - 8056206308

BOTANY MODEL 4

Date : 19-Feb-20

11th Standard

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

8 x 1 = 8

1) Thick walled aplanospores are called_____
   (a) akinete (b) hormogone (c) hypnospore (d) tetraspore

2) Petiole is present in:
   (a) Calotropis (b) Hibiscus (c) Gloriosa (d) None of the above

3) Pappus is seen in _____
   (a) Potato (b) Hibiscus (c) Papaya (d) Tridax

4) Engler and Prantl proposed ..... system of classification.
   (a) Natural (b) Sexual (c) Phylogenetic (d) Artificial

5) Mitosis can occur in _____
   (a) Haploid and diploid cells both (b) Pollen mother cells (c) Haploid cell only (d) Diploid cell only

6) Gymnosperm wood is known as _____
   (a) non porous wood (b) hard wood (c) porous wood (d) sap wood

7) Identify the wrong statement with reference to Diffusion
   i) It is seen in gases and liquids.
   ii) It is a active process and hence no energy expenditure is required.
   (iii)The rate of diffusion is determined by concentration gradient.
   (iv) It is independent of the living system.
   (a) ii and iii (b) i and iv (c) ii only (d) i only

8) _____ is not linked to protein - lecithin theory.
   (a) phosphatidic acid (b) ATP4 (c) Choline (d) Dehydrogenase

4 x 2 = 8

9) Name the methods of asexual reproduction seen in algae.

10) Define Meristematic zone.

11) What is a Syconus?

12) Give the Binomials of a) Sun hemp b) Flame of the forest

13) What is closed mitosis?

14) Mention any two sulphur containing amino acids.

3 x 3 = 9

15) Mention three salient features of Brown algae.

16) What are hook climbers?

17) Mention any three functions of fruit

18) What is Karyotaxonomy / Cytotaxonomy?

19) What is Endomitosis?

2 x 5 = 10

20) Write down the characteristic features of Chlorophyceae.

21) Write a note on the regions of the root.

22) Write a note on Schizocarpic fruits.

23) List the ICN principles.

****

Ravi home tutions

ZOOLOGY MODEL 4

Date : 19-Feb-20

11th Standard

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

8 x 1 = 8

1) _____is called the bird man of India.
   (a) Dr. Subramaniam (b) Dr. Salim Ali (c) Whittaker (d) Varad Giri

2) The special flagellated cells lining the spongocoel is:
   (a) Choanocytes (b) Cridocytes (c) Nematocyst (d) Lasso cells

3) Radiata include
   (a) diploblastic and bilaterally symmetrical animals. (b) Triploblastic and radially symmetrical animals. (c) Diploblastic and radially symmetrical animals. (d) Triploblastic and bilaterally symmetrical animals.

4) Squid, cuttle fish and Octopus belongs to class of
   (a) decapoda (b) scaphopoda (c) cephalopoda (d) apods

5) What distinguishes an insects from crustacean?
   (a) number of eyes (b) arrangement of nerve cords (c) number of appendages (d) presence of wings.

6) _____ are described as tubular blind processes.
   (a) Hepatic caecae (b) Malpighian tubules (c) Nephridia (d) Colleterial gland

7) Find the incorrect statement.
   (a) Gaseous exchange continues in the lungs because some air remains inside the lungs even after deepest exhalation (b) The blood is the tissue capillaries contains higher pO_2 than tissue fluid. (c) Deoxygenation of blood promotes the release of carbon di oxide from the blood in the lungs. (d) All the above

8) Respiratory centre of brain is stimulated by
   (a) Carbon dioxide content in venous blood (b) Carbon dioxide content in arterial blood (c) Oxygen content in venous blood (d) Oxygen content in arterial blood

ANSWER 4

6 x 2 = 12

9) Write down the binomial names for the following
   (i) National Bird of India,
   (ii) National Animal of India,
   (iii) Tamil Nadu State Bird.

10) Why are round worms so called?

11) Which is longest species of earthworm in South India and in Africa?

12) Name the three layers of alveoli.

13) Give examples of fishes grown in Brackish water aquaculture.

14) Write about the unique flight taken by the queen bee during the breeding season

ANSWER 3

5 x 3 = 15

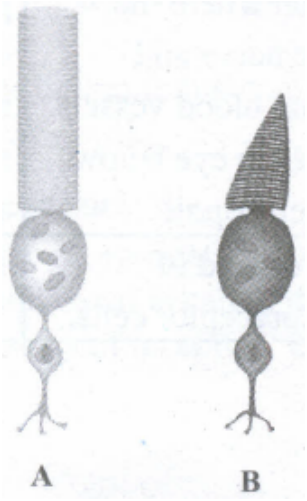
15) What is genus? Mention the types.

16) Differentiate Chordates and Non-Chordates.

17) Describe the economic importance of earthworm.

18) Discuss the five primary functions of the respiratory system.

19) Identify A and B. Write the significance of each.



ANSWER 2 4 x 5 = 20

20) What is the difference between a Zoo and Wild Life Sanctuary

21) Explain the human respiratory system.

22) Animal husbandry is the science of rearing, feeding and caring, breeding and disease control of animals. It ensures supply of proper nutrition to our growing population through activities like increased production and improvement of animal products like milk, eggs, meat, honey, etc.

a. Poultry production depends upon the photoperiod. Discuss

b. Polyculture of fishes is of great importance.

23) Explain the stages involved in rearing of poultry.

****

RAVI MATHS TUITION CENTER, NEAR VILLIVAKKAM RLY STATION, CHENNAI – 82.
WHATSAPP - 8056206308

BOTANY MODEL 5

Date : 19-Feb-20

11th Standard

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

8 x 1 = 8

1) The correct statement regarding Blue green algae is
   (a) lack of motile structures (b) presence of cellulose in cell wall (c) absence of mucilage around the thallus (d) presence of floridean starch

2) Monotropa derives nutrition by _____
   (a) Root Nodules (b) Lichens (c) Mycorrhizae (d) Roots

3) Curcuma amada, Curcuma domestica, Asparagus, Maranta are example of
   (a) Tuberous root (b) Beaded root (c) Moniliform root (d) Nodulose root

4) Which of the following is a flowering plant with nodules containing filamentous nitrogen fixing micro-organisms?
   (a) Crotalaria juncea (b) Cycas revoluta (c) Cicer arietinum (d) Casuarina equisetifolia

5) Centromere is required for
   (a) transcription (b) crossing over (c) cytoplasmic cleavage (d) movement of Chromosome towards pole

6) Enzymes that catalyse interconversion of optical, geometrical or positional isomers are
   (a) Ligases (b) Lyases (c) Hydrolases (d) Isomerases

7) Read the following sentences and identify the correctly matched sentences.
   i. In exarch condition, the protoxylem lies outside of metaxylem.
   ii. In endarch condition, the protoxylem lie towords the centre.
   iii. In centarch condition, metaxylem lies in the middle of the protoxylem.
   iv. In mesarch condition, protoxylem lies in the middle of the metaxylem.
   (a) i, ii and iii only (b) ii, iii and iv only (c) i, ii and iv only (d) All of these

8) Which chlorophyll molecule does not have a phytol tail?
   (a) Chl- a (b) Chl-b (c) Chl- c (d) Chl -d

6 x 2 = 12

9) Why do farmers plant leguminous crops in crop rotations/mixed cropping?
10) What is the unique feature of cell membrane of Archaebacteria?
11) Compare sympodial branching with monopodial branching.
12) Potato has scale leaves and not foliage leaves. Give reason.
13) How phosphorylase enzyme open the stomata in starch sugar interconversion theory?
14) A tree is believed to be releasing oxygen during night time. Do you believe the truthfulness of this statement? Justify your answer by giving reasons?

5 x 3 = 15

15) Write down the non- living characteristic features of virus.
16) Describe the Functions of the stem.
17) Mention any three roles of Botanical gardens
18) Microspores are produced is the multiples of four. why?
19) What are the steps involved in phloem loading?

4 x 5 = 20

20) Explain the characteristic features of Mycoplasma or Mollicutes.
21) Compare the location, cellular types and the functions of different zones of root.
22) Write down the economic importance of Family Fabaceae.
23) What are enzyme Inhibitors? Explain the two types of inhibitors?

****

Ravi home tutions

ZOOLOGY MODEL 5

Date : 19-Feb-20

11th Standard

Biology

Reg.No. : | | | | | | |

Exam Time : 01:30:00 Hrs

Total Marks : 35

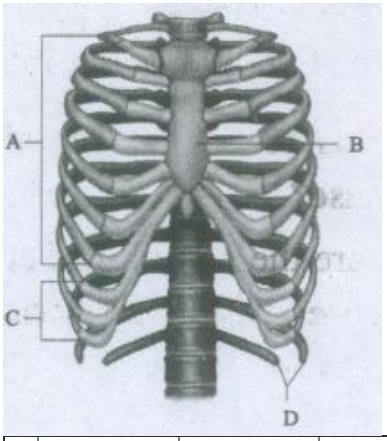
8 x 1 = 8

1) Book written by Darwin_____
   (a) Historia Generalis (b) Origin of species (c) Systema Naturae (d) Phylogeny of plants
2) According to Aristotle, the animals with red blood cells are called:
   (a) Anaima (b) chromista (c) Enaima (d) Protozoa
3) The first segmented animals to evolve were the
   (a) Annelids (b) Arthropods (c) Molluscs (d) Echinoderms
4) Which of the following shows metamerically segmented body?
   (a) Aschelminthes (b) Annelida (c) Arthropoda (d) Platyhelminthes
5) Wuchereria is found in
   (a) lymph nodes (b) lungs (c) eye (d) gonds
6) ------ helps to stop substances from leaking across a tissue.
   (a) Gap junction (b) Tissue junction (c) Tight junction (d) Adhering junction
7) 'Angina' refers to_____
   (a) Heart muscle (b) Stroke (c) Coronary heart disease (d) Chest pain
8) Erythroblastosis foetalis is a condition of incompatibility related to _____.
   (a) Rh antigen and Rh antibodies (b) anti A and antigen B (c) anti B and antigen A (d) antigens A and B

ANSWER 4

6 x 2 = 12

9) Define the following terms - (i) Halophiles
   (ii) Methanogens
   (iii) Thermoacidophiles
10) Expand the abbreviations DAISY and ABIS.
11) How does crocodile differ from the rest of the reptiles?
12) Write the location of compound epithelium
13) What is aneurysm? How much it is dangerous?
14) Identify the parts marked as A, B, C and D for the below diagram



	A	B	C	D
(a)	True ribs	Sternum	False ribs	Floating ribs
(b)	Sternum	False ribs	Floating ribs	True ribs
(c)	False ribs	Floating ribs	True ribs	Sternum
(d)	Floating ribs	True ribs	Sternum	False ribs

ANSWER 3

5 x 3 = 15

15) How did Aristotle classify organisms?

16) Give an account of the General features of subphylum caphalochorelata.

17) What is ECG?

18) Draw a L.S. of Kidney and label

(a) Ureter, (b) Capsule, (c) Pelvis

19) Name the different methods of poultry farming.

ANSWER 2 4 x 5 = 20

20) Can we use recent molecular tools to identify and classify organisms

21) Observe the animal below and answer the following questions.

a. Identify the animal

b. What type of symmetry does this animal exhibit?

c. Is this animal Cephalized?

d. How many germ layers does this animal have?

e. How many openings does this animal's digestive system have?

f. Does this animal have neurons?

22) List the hormones of the anterior lobe of the pituitary gland?

23) Explain the stages involved in rearing of poultry.

****