



BIOLOGY

BOOKS - SURA BIOLOGY (TAMIL ENGLISH)

SELF-EVALUATION TEST 2 MARKS

Answer Any Questions Physics

1. What is power of accomodation of eye?



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2. Fill in the blanks:

(i) The amount of work done to move charge from one point to another is called_____.

(ii) When a circuit is open,_____ cannot pass through it.



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3. Define one calorie.



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4. What is radio carbon dating ?



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5. True or False. If false give the correct statement:

(i) The power of lens depends on the focal length of the lens.

(ii) Luminous object which give out their own light.



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6. What is the minimum distance needed for an echo?



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7. A cobalt specimen emits induced radiation of 75.6 millicurie per second. Convert this disintegration into becquerel.

(one curie = $3.7 \times 10^{10} Bq$)



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8. How does an astronaut float in a space shuttle ?



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9. Name any two devices, which are working on the heating effect of the electric current .



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10. The amount of scattering of light depends on _____ and _____.



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11. Define critical mass.



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12. True or false. If false give the correct statement.

(i) Sound can travel through solids, gases, liquids and even vacuum.

(ii) The particles of the medium move from one part to another part during propagation.



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13. Name the process of heat transmission.



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14. Why does sound travel faster in solids than in gases?



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15. The refractive index of kerosene is 1.44 & that of diamond is 2.42 . Calculate the refractive index of diamond with respect to kerosene.



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16. Define moment of a couple.



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17. The effective resistance of three resistors connected in series is lesser than the lowest of the individual resistances.



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18. Define electric power.





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19. Temperature is an indication of the _____ of molecules.



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20. What are stokes lines ?



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21. Which material is used to make fuse wire?



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22. What is stellar energy ?



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23. Fill in the blanks:

(i) Nuclear fusion is possible only at an extremely high temperature of the order of

___K.

(ii) The phenomenon of radioactivity is exhibited by elements having atomic number_____.



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24. A constant force F acts on a truck over a distance s and for a time t . What is the momentum gained by the truck ?



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25. What is meant by Natural Radioactivity ?



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26. Define- Temperature.



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27. The eye of the nocturnal birds like owl are having a large cornea and a large pupil. How does it help them ?





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28. If the net torque acting on the body is zero, then the body is in



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29. What are longitudinal waves? Give one example.



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30. Fill in the blanks:

(i) By convention, the blockwise moments are taken as-____ and the anticlockwise moments are taken as ____.

(ii) The apparent weight of an object_____ in an elevator while accelerating upward.



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31. "Wearing helmet and fastening the seat belt is highly recommended for safe journey"

justify your answer using Newton's law of motion.



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32. What is meant by Rayleigh scattering.



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33. For a given heat in liquid, the apparent expansion is more than that of real expansion.



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34. If you keep ice at $0^{\circ}C$ and water at $0^{\circ}C$ in either of your hands, in which hand you will feel more chillness? Why?



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35. Fill in the blanks:

(i) Dolphins and bats hear_____.

(ii) If the energy in a longitudinal wave travels

from south to north, the particles of the medium would be vibrating in ____.



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36. State Snell's law.



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37. What is vo-efficient or real expansion ?



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38. True or false. If false give the correct statement:

(i) Weight of a body is greater at the equator and less at the polar region.

(ii) The relation between absolute units of force on MKS and C.G.S system is $1\text{N}=10^5\text{dyne}$.



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39. What is the direction of current ?



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40. X- ray should not be taken often'. Give the reason.



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41. True or false. If false give the correct statement:

(i) If a moderator is not present , then a nuclear reactor will behave as an atom bomb.

(ii) Gamma rays are deflected by both electron and magnetic fields.



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42. What is resistance?



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43. What will be the frequency of sound having 0.20m as its wavelength, when it travels with a speed of 331 m s^{-1} ?



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44. What is co-efficient of cubical expansion?



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[Answer Any Questions Chemistry](#)

1. Find the mass of 2.5 mole of oxygen atom .



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2. Volume percentage decreases with increases in temperature because _____.



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3. Roasting is the process in which the ore is heated in the presence of excess air.



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4. Name the acid that renders aluminium passive . Why ?



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5. What is meant by binary solution ?



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6. Fill in the blanks:

(i) Conductivity of water has resulted from the

_____ of water.

(ii) _____ decomposition reaction may occur in the presence of heat or light.



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7. The mass of the molecule of an element or compound is measured in hydrogen scale.



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8. Calculate the number of moles in 2g of NaOH .



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9. 'A' is a blue coloured crystalline salt . On heating it loses blue colour and to give 'B' when water is added , 'B' gives back to 'A' Identify A and B, write the equation .



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10. Can a nickel spatula be used to stir copper sulphate solution ? Justify your answer .



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11. Anything that has mass and occupies space is called _____



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12. True or False. If false give the correct statement:

(i) In a solution the component which is present in lesser amount is called solvent.

(ii) Deliquescent substances do not change its state on exposure to air.



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13. Write the different types of isotopes of oxygen and its percentage abundance .





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14. Define Volume percentage .



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15. What is the melting point of aluminium ?



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16. Define endothermic reaction . Give an example .



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17. A is a silvery white metal. A combines with O_2 to form B at $800^\circ C$, the alloy of A is used in making the aircraft . Find A and B



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18. 2.82 g of glucose is dissolved in 30 g of water. Calculate the mole fraction of glucose and water.



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19. True or False. If false give the correct statement:

(i) Organic compounds are readily soluble in water.

(ii) Red ants contain formic acid.





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20. How does the property vary in periods and in groups ?



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21. Butter is an example of one type of colloidal solution .Name it .



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22. When a soap a detergent is dissolved in water , the molecules join together as clusters called _____



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23. True or False. If false give the correct statement:

(i) Esters are represented as R-CHO.

(ii) Successive members of homologous series differ by a methyl group ($-CH_3$).



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24. Calcium carbonate is decomposed on heating in the following reaction



How many moles of CO_2 are there in this equation ?



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25. Name the simplest ketone and give the structural formula .



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26. Fill in the blanks:

(i) The third period contains ___ elements.

(ii) _____ is defined as half the distance between the nuclei of adjacent metal atoms.



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27. True or False. If false give the correct statement.

(i) Noble gases are Diatomic.

(ii) 1 mole of Gold and Silver contain same number of atoms.



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28. Why does the reaction rate of a reaction increase on raising the temperature ?



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29. Fill in the blanks:

(i) (Saturated/Unsaturated)_____compounds

decolourize bromine water.

(ii) Biodegradable detergents are made of _____ (branched/straight) chain hydrocarbons.



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30. True or False. If false give the correct statement:

(i) If few drops of water is added to anhydrous $CuSO_4$, it turns blue in colour.

(ii) In exothermic process, solubility decreases with increase in temperature.



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31. What are metathesis reaction ?



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32. How is ethanoic acid prepared from ethanol? Give the chemical equation.



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33. Find the percentage of nitrogen in ammonia.



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34. What is rectified spirit ?



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35. Atoms of different elements having _____ mass number , but _____ atomic numbers

are called isobars .



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36. True or False. If false give the correct statement:

(i) An alloy is a heterogenous mixture of metal.

(ii) All metals are solids are room temperature.



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37. Measurement of atomic mass of an element is very difficult ? Give reason .



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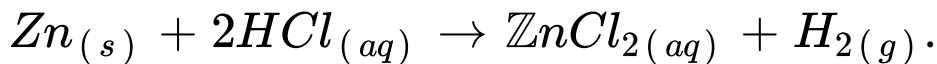
38. Define Average atomic mass ?



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39. Zinc granules react with hydrochloric acid to form zinc chloride accompanied by

hydrogen gas . It is a displacement reaction .



What is the nature of the reactions .



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40. Fill in the blanks:

(i) The ion formed by dissolution of H^+ in water is called _____.

(ii) The equilibrium attained during the melting of ice is known as _____.



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41. Recharging of mobile battery is a irreversible reaction .



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42. What is the meaning of ' Chalcogens ?



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43. Define dissolution .





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Answer Any Questions Biology

1. Write a note on menstrual cycle.



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2. Fill in the blanks:

(i) Prolactin is a hormone produced by ____.

(ii) Fertilization is ____ in humans.



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3. Where does the carbon that is used in photosynthesis come from?



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4. Define pulse .



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5. True or False. If false give the correct statement:

(i) Hypothalamus is the thermoregulatory centre of human body.

(ii) Reflex arc allows the rapid response of the body to a stimulus.



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6. What would happen if the parathyroid gland was removed?





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7. Why are the rings of cartilages found in trachea of rabbit?



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8. Fill in the blanks:

(i) The posterior sucker is formed by the fusion of the _____ segments.

(ii) The blood sucking habit of leech is known as _____.



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9. What is bolting? How can it be induced artificially?



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10. True or False. If false give the correct statement:

(i) The increased level of estrogen and

progesterone is responsible for menstruation.

(ii) Stalk of the ovule is called pericel.



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11. Define stimulus.



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12. What is protoxylem lacuna?



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13. When any dry plant material is kept in water , they swell up . Name and define the phenomenon involved in this change .



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14. True or False. If false give the correct statement:

(i) An anticoagulant present in salive of leech is called heprin.

(ii) Diastema is a gap between premolar and molar teeth in rabbit.



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15. Define pollination.



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16. Give an account on vascular bundle of dicot stem.



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17. Fill in the blanks:

(i) _____ causes stomatal closure.

(ii) The growth and functions of thyroid gland is controlled by_____.



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18. Which acts as a link between the nervous system and endocrine system?



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19. Where do the light dependent reaction and the Calvin cycle occur in the chloroplast?



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20. What is the role of parathorone?



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21. Do leeches have eyes and ears?





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22. What happens in the female body (uterus) if the ovum (egg) is not fertilised by a sperm ?



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23. Fill in the blanks:

(i) _____ and _____ increases the surface area of cerebrum.

(ii) Impulses travel rapidly in _____ neurons.



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24. What are bulliform cells?



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25. What is cohesion ?



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26. True or False. If false give the correct statement:

(i) In apoplastic movement the water travels through the cell membrane and enter the cell.

(ii) The closure of the mitral and tricuspid valves at the start of the ventricular systole produced the first sound 'LUBB'.



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27. What is apical dominance.





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28. Fill in the blanks:

(i) Water enters the root cell through a _____.

(ii) Deoxygenated blood from the cardiac muscles drains into the right atrium by the _____.



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29. Why is the circulation in man referred to as double circulation ?



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30. True or False. If false give the correct statement:

(i) In monocot stem cambium is present in between xylem and phloem.

(ii) Anaerobic respiration produces more ATP than aerobic respiration.



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31. What is diastema?



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32. Define:-

Myxoedema



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33. Why is vegetative propagation practiced for growing some type of plants?



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34. Fill in the blanks:

(i) Glycolysis takes place in ____.

(ii) Cortex lies between.



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35. What are neuroglia?



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36. What are warm blooded animals?



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37. True or False. If false give the correct statement:

(i) Exophthalmic goiter is due to the over secretion of thyroxine.

(ii) A plant hormone concerned with stimulation of cell division and promotion of nutrient mobilization is cytokinin.



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38. Shylesh has some pet animals at his home. He has few rabbits too. One day while feeding them he observed something different with the teeth. He asked his grandfather, why is it so? What would have been the explanation of his grandfather?



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39. Write the characteristics of insect pollinated flowers.



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40. When we touch a cactus unknowingly, we get pricked by the thorns. We withdraw our hands immediately. Which type of neuron gets activated first.



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41. Name the two components of autonomic nervous system.



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42. Write the functions of RBC ?



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43. Leeches do not have an elaborate secretion of digestive juices and enzymes - Why?





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44. A' contains a cerebrospinal fluid filled cavity known as 'B'.How many nerves are produced from'A'.

(i)What is 'A'?

(ii)What is 'B'?



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[Answer Any Questions Biology Computer](#)

1. What do you understand by the term phenotype and genotype?



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2. Fill in the blanks:

(i) All files are stored in the _____.

(ii) Which is used to edit programs _____.



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3. What are the objectives for replacing non-conventional energy resources from conventional energy resources?



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4. True or False. If false give the correct statement:

(i) Fishes originated from mud is a concept in Abiogenesis.

(ii) Homologous organs look similar but are adapted for different functions.



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5. What is Geologic time scale.



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6. How can we contribute to a sustainable world ?



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7. Write is difference between a file and a folder?



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8. What will happen if trees are cut down ?



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9. Fill in blanks:

(i) Deforestation leads to _____ in rainfall.

(ii) _____ is a biosphere reserve in Tamilnadu.



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10. Block menu is used to choose the category of blocks.



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11. What is the role of fat in the cause of atherosclerosis ?



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12. Arun was playing in the garden. Suddenly he saw a dragon fly sitting on a plant. He observed the wings of it. He thought it looked similar to a wing of a crow. Is he correct? Give reason for your answer.



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13. Write the uses of 'Note pad' and 'Paint' app.



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14. A breeder wishes to incorporate desirable characters into the crop plants. Prepare a list of characters he will incorporate.



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15. Fill in the blanks:

(i) A highly poisonous chemical derived from tobacco is _____.

Insulin resistance is a condition in _____ diabetes mellitus.



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16. Solar energy is a renewable energy. How?



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17. True or False. If false give the correct statement:

(i) Raphano brassica is a man-made tetraploid produced by colchicine treatment.

(ii) In vitro fertilisation means the fertilisation done inside the body.



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18. What are Okazaki fragments?



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19. Mention the diseases caused by tobacco smoke.



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20. Why is Archaeopteryx considered to be a connecting link?



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21. Define Genetic engineering.



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22. In what way computer can help to improve your studies ?



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23. Fill in the blanks:

(i) _____ is the chemical used for doubling the chromosomes.

(ii) _____ cells are undifferentiated mass of cell.





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24. What is adult onset diabetes ?



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25. True or False. If false give the correct statement:

(i) A typical Mendelian dihybrid ratio of F₂ generation is 3:1.

(ii) New nucleotides are added and new

complimentary strand of DNA is formed with the help of enzyme DNA polymerase.



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26. State the importance of biofertilizer.



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27. Define a gene.



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28. Flowers of the garden pea are bisexual and self-pollinated .Therefore ,it is difficult to perform hybridization experiment by crossing a particular pistil with the specific pollen grains.How Mendel made it possible in his monohybrid and dihybrid crosses?



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29. What is RNA primer?



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30. Fill in the blanks:

(i) The degenerated and non-functional organs found in an organism are called_____.

(ii) The theory of natural selection for evolution was proposed by ____.



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31. True or False. If false give the correct statement.

(i) Habitat destruction cause loss of wild life.

(ii) National park is a protected park.



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32. What is Scratch?



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33. Explain the Theory of Special Creation.



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34. Define cancer.



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35. What is gene therapy ? Mention the types .



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36. Fill in the blanks:

(i) The pairs of contrasting character (traits) of

Mendel are called _____.

(ii) DNA consists of two _____ chains.



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37. What is theory of Spontaneous generation or Abiogenesis ?



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38. Plants seeds got from other countries are tested in plant quarantine. Reason out.



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39. True or False. If false give the correct statement:

(i) In leukemia both WBCs and RBCs increase in number.

(ii) Type 2 diabetes mellitus results due to insulin deficiency.



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40. Where is tobacco got from?



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41. What are the agents of soil erosion ?



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42. What is Stage ?



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43. To nature of files are determined by its application.



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