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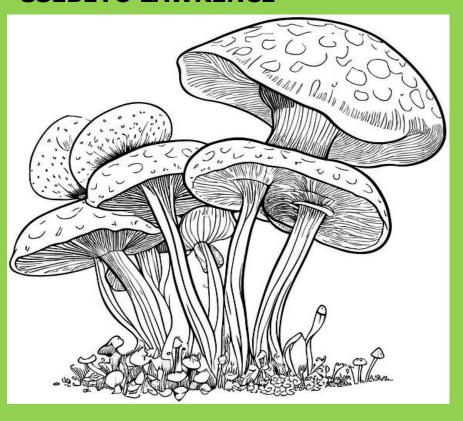
INTEGRATED SCIENCE

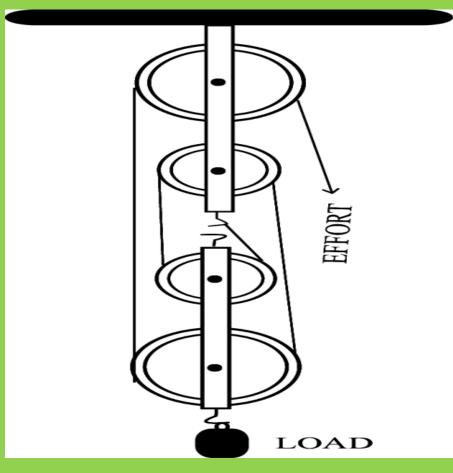
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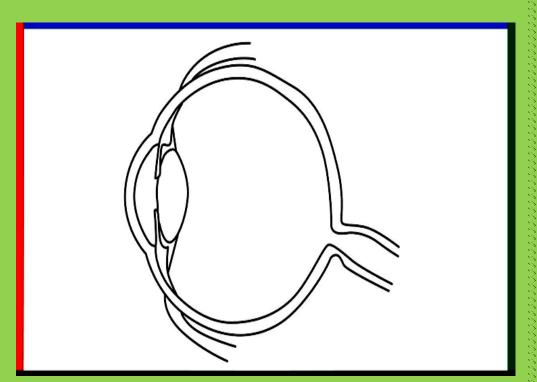
EDITED BY: MR.KALULE NOAH

TWEHEYO SAMUEL

SSEBEYO LAWRENCE









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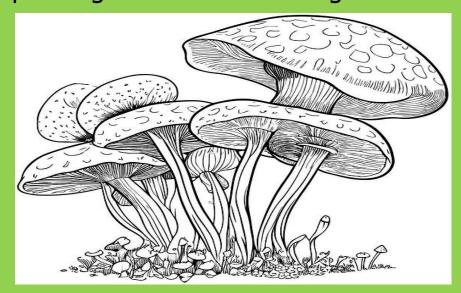
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SECTION A: 40 MARKS

Questions 1 to 40 carry one mark each.

- 1. How can mulching be dangerous to a farmer?
 - ✓ Mulches may be a source of fire hazards in case of fire outbreak.
 - ✓ Wet mulches with mature seeds may turn into weeds
- 2. Give the meaning of matter.
 - ✓ Matter is any thing that has mass and weight//Matter is anything that occupies space and has mass.
 - ✓ Reject matter is anything that occupies space and has weight.
- 3. Which component of a circuit breaks it in case of too much current flow?
 - ✓ A fuse reject a switch a switch breaks or completes the circuit.
- 4. How does paddock grazing help to control tick borne diseases?
 - ✓ Breaks the life cycle of ticks.
- 5. Mention any one characteristic of forms of energy.
 - ✓ They make work possible// It enables us to do work
 - ✓ Energy can be changed from one form to another.
- 6. Mention any one factor considered when starting a school garden.
 - ✓ Well drained piece of land
 - √ Capital
 - ✓ Seeds to plant
 - ✓ Garden tools
 - ✓ Water
 - ✓ Labour source
- 7. To which group of organisms does the organism below belong.

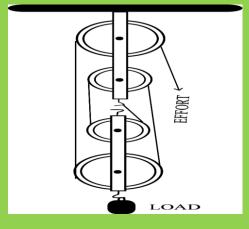


- √ Fungi kingdom
- 8. How does the above organism reproduce?
 - **✓** By means of spores
- 9. Which type of change occurs when volcanic eruption occurs?
 - ✓ Physical change
- 10. Why should a house for goats be well ventilated?
 - ✓ For proper air circulation.
- 11. Mention any one way germs can be spread spread.
 - √ By vectors landing on our food with them(germs)
 - ✓ By vectors vomiting on our food

- √ Taking contaminated food and water
- ✓ Through air
- ✓ Through body contact
- ✓ Through shaking hands
- ✓ Through sharing bathing materials like basins and sponges
- ✓ Through blood transfusion
- ✓ Through sharing clothes.
- 12. What does the worm drawn below feed on?

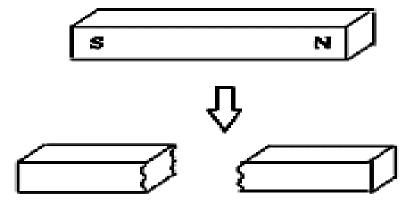


- ✓ Blood
- 13. Mention any one sign of the worm drawn above in the body.
 - ✓ Diarrhoea//itching on the lower leg//body weakness//stomach pain
- 14. What first aid can you give to a person who has been burnt by porridge?
 - √ Put the burnt part in clean cold water
 - √ Pour clean cold water on the burnt part
- 15. Which rabbit disease leads to mucus discharge from the nose and sneezing of the rabbit all the time?
 - √ Snuffles//snuffle disease
- 16. How is the gall bladder important in the human body?
 - √ For storing bile //bile salts//bile pigments
- 17. Mention any one danger of too much rainfall in the environment
 - √ Too much rainfall causes floods
 - ✓ Rainfall which carries hail storm and storms destroys crops and property
 - ✓ Floods may increase the spread of water borne diseases
- 18. Which term refers to animals without a back bone?
 - **√** *Invertebrates*
- 19. Name the pulley system drawn below



- √ Block And Tackle
- 20. What is the mechanical advantage of the pulley system drawn above?
 - ✓ M.A(Mechanical Advantage) = 4
 - √ Count the number of wheels in the pulley system
 - ✓ Count the number of strings in the pulley system.Do not count the effort string

- 21. State one reason why sound is referred to as a form of enegy.
 - ✓ It enables us to do work//Has the ability to do work//Capable to do Work
 - ✓ It can be transformed from one form to another
- 22. What is the function of the Aorta during blood circulation in the body?
 - ✓ Carries/transports oxygenated blood from the heart to all body parts
- 23. How best can a primary child protect him/herself from contracting HIV/AIDS?
 - √ Abstaining from sex
 - ✓ Say NO to sex
- 24. Why should a cattle keeper use a clean dry cup when extracting milk from a cow?
 - √ To prevent milk contamination// to prevent milk from getting contaminated
- 25. How is a burddizo important in piggery?
 - √ For carrying out closed castration//For castrating male pigs(boars)
- 26. Mention any one example of an animal fibre
 - √ Silk//fur//mohair//wool
- 27. Why do farmers prefer rearing local breeds of chicken to exotic breeds of chicken?
 - ✓ Local breeds of chicken are resistant to diseases compared to exotic ones
 - ✓ Local breeds of chicken are resistant to harsh climatic/weather conditions compared to exotic breeds
- 28. How does the use of charcoal energy saving stoves help to reduce on the rate of deforestation in an area?
 - ✓ They use less charcoal which reduces on the rate of deforestation.
- 29. How are molar teeth similar to pre molars in terms of their function?
 - ✓ Both are used to crush food/chew food
- 30. Which mineral is a source of tungsten used to make electric bulb filaments?
 - ✓ Wolfram
- 31. Mention any one example of a gas fuel.
 - √ Biogas//Natural gas
- 32. Why should plastics and polythene bags be properly disposed?
 - √ To prevent soil pollution
 - √ To prevent environmental degradation
- 33. Mention the main product of respiration.
 - ✓ Energy
- 34. Which property of magnets is drawn below?



√ When a magnet breaks into pieces each piece becomes an independent magnet

- 35. List down one sign of pregnancy in women.
 - √ Menstruation period stops
 - √ Breasts grow bigger and tender
 - √ The belly expands due to increasing size of the foetus
 - √ Frequent urination
 - √ Morning sickness//Nausea and vomiting
 - √ Food cravings
 - √ Fatigue
- 36. Which Immunizable disease leads to lameness?
 - ✓ Polio//poliomyelitis
- 37. State any one effect of rusting to metals.
 - √ Makes garden tools blunt
 - √ Changes the colour of garden tools
- 38. Which fungus is used in the fermentation method of making alcohol?
 - √ Yeast
- 39. Give a reason why water is added in a pit when making compost manure?
 - √ To increase on the rate of decomposition//To quicken the decomposition process
- 40. Mention any one advantage of artificial fertilizers.
 - √ Easy to apply
 - √ Contain right nutrients in the correct quantity
 - √ Release nutrients quickly
 - √ They are quick to improve soil fertility

SECTION B(60MARKS).

- 41a). Which method is used to separate a mixture of water and alcohol?
 - √ Fractional distilaation
 - b) Give a reason why the above method is used to separate a mixture of water and alcohol.
 - √ They have the same density
 - √ They evaporate at different temperatures
 - c) Mention any other two methods used to separate mixtures.
 - ✓ Distillation method/winnowing//decantation//floating//filtration//use of a magnet//sieving//hand picking//evaporating a mixture to dryness
- 42. Study the diagram below and use it carefully to answer the questions that follow.

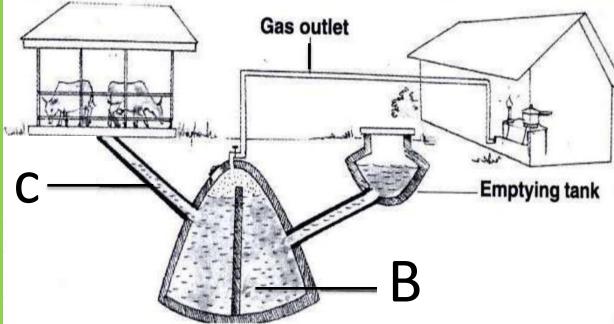


- a) Name the stage of life cycle marked with letter X.
 - √ Eggs
- b) Which amphibian has the life cycle shown above?
 - √ Frog

- c) State the difference in terms of breathing between stage Y and stage Z.
 - ✓ Stage Y use gills for breathing while stage Z use lungs and moist skin for breathing
- d) Name any other example of an amphibian in the environment.

Toads //salamandars//newts//caecillians

- 43a) Give any other organ of the circulatory system apart from the heart.
 - √ Blood vessels//blood
 - b) Give any two ways in which the human heart is adapted to its function.
 - √ Made up of cardiac muscles to with stand high blood pressure
 - ✓ The left side of the heart is thicker than the right side to pump blood at a higher pressure.
 - √ The heart has the septum that prevents oxygenated blood from mixing with deoxygenated blood
 - ✓ Muscles of the heart has the ability to relax and contract when pumping blood
 - √ The heart has the valves to prevent the back flow of blood
 - c) Which blood component help in blood clotting?
 - **✓ Platelets**
- 44a) What is meant by the term "excretion"
 - √ The process by which waste products of metabolism are removed from the body
 - √ The process by which toxic waste materials are removed from the
 - ✓ body//the process by which waste products are removed from the body
 - b) Mention two ways excretion is important in the body.
 - ✓ Helps the body to get rid of waste products
 - √ Maintains homeostasis
 - √ Help in temperature regulation
 - c) Mention one excretory product released by both the skin and the kidney.
 - √ Water//salt
- 45. Study the diagram below and use it to answer the questions that follow.



- a) Give the function of part marked C.
 - √ For inserting in plant and animal matter
- b) Mention two materials that can be put in part marked B.
 - √ Cow dung//plant residues//animal urine/banana peelings

- c) What is the role of bacteria in part marked B?
 - √ For fermenting the materials in B.
- 46a) State one type of stem to plants.
 - ✓ Upright stems//climbing stems//underground stems
 - b) Give a reason to why some plants climb others.
 - √ To get sunlight//To get extra support//to get support
 - c) Mention two methods plants use to climb others.
 - √ Clasping//twinning//use of tendrils//use of hooks.
- 47a) Which method of grazing cattle involves the farmer to tie a cow on pegs or trees using ropes?
 - ✓ Tethering method.
 - b) State any one advantage of the above method of grazing cattle.
 - √ It is cheap
 - √ Less labour is required
 - √ Cattle cannot stray and destroy crops
 - c) Give any two disadvantages of grazing cattle using the above method of grazing cattle
 - √ Animals do not get enough exercise
 - √ The ropes may easily strangle the animal
 - ✓ Only few animals can be kept
 - √ Animals can be easily stolen
 - √ Animals can easily be attacked by predators
- 48a) Mention one physical process involved in the distillation method of making alcoholic
 - ✓ Evaporation//Condensation
- b) Give a reason why the delivery tube is passed through cold water during the distillation method of making alcohol.
 - √ To condense the alcohol vapour
- c) Mention two ways alcohol is important to the medical industry.
 - √ Used as a disinfectant to clean the wounds
 - √ Used for sterilizing medical instruments
- 49. The diagram below shows a certain message which a doctor gave to Mukisa to go and take. Use it carefully to answer the questions that follow.



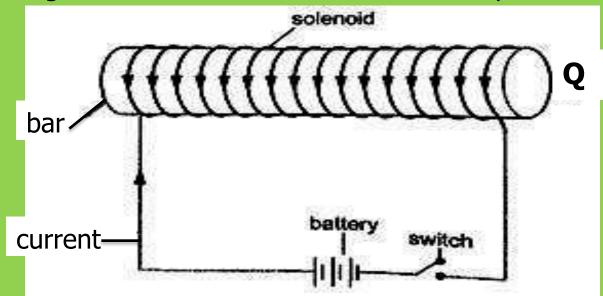
- a) What name is given to the information written on the essential drug above?
 - ✓ Drug prescription
- b) If the patient took the drug above in the morning at 7:00am, at what time of the day will the patient be required to take the drug again?

1Day = 24hrs Hours = 24 ÷3 = 8hrs

The patient will take the drug at 2:00pm.

- c) Mention one danger of taking drugs from local drug shops.
 - ✓ One may buy expired drugs//One may buy contaminated drugs//The drugs may not be properly prescribed
- 50a) How are horsetails similar to ferns in terms of reproduction?
 - √ Both reproduce by means of spores
 - b) Which group of non flowering plants reproduces by means of seeds?
 - √ Conifers//coniferous plants//seed bearing non flowering plants
 - c) Mention any two examples of non flowering plants that reproduces by means of seeds.
 - ✓ Pine//cypress//podo//cycads//fir
- 51a) Give any two ways in which market is a unifying factor in farming.
 - √ Used for selling market products
 - √ Farmers buy animal feeds from markets
 - √ Farmers buy some tools from markets.
 - b) Apart from market, give any two other requirements for starting a farm.
 - √ Capital// land// labour//source of water
- 52a) How does chlorine make water safe for drinking?
 - √ By killing germs in water
 - b) Give one other method of making water safe for drinking apart from chlorination.
 - √ Flouridation//boiling
 - c) Why is water obtained by distillation not recommended for drinking?
 - √ Has no mineral salts//lacks mineral salts
 - d) Mention any one use of water obtained by decantation at home.
 - √ For washing clothes//mopping the house// for drinking if treated with permitted chemicals or boiled
 - 53a) Write down any two factors that may lead to teenage pregnancy.
 - ✓ Peer pressure into early sex//failure to provide basic needs by parents//rape//defilement//lack of proper guidance and counseling by parents//group influence
 - b) Give any two consequences of teenage pregnancy.
 - ✓ School drop outs//rejection by parents(stigmatization)//causes birth complications//the young parents may fail to provide basic needs to the parents//forced marriage
- 54a) Give the meaning of the word "Ventilation"
 - √ This is the replacement of warm air by fresh air
 - b) What is the use of ventilators on a house?
 - √ To let out stale air//to let out warm used air.
 - c) Give a reason why ventilators are put on top of doors and window?
 - ✓ Ventilators let out stale air which is less dense while doors and windows let in fresh air which is more dense than stole air.
 - d) Mention any other application of ventilation in the environment.
 - √ Used in lantern lamp
 - √ Used in charcoal stoves
 - √ Used in charcoal iron box

55. Study the diagram below and use it to answer the questions that follow about it.



- a) Name the method of making magnets shown above. *Electrical method reject electric method*
- b) How many dry cells were used in the above method of making magnets? 3dry cells//three dry cells reject 3 dry sells//three dry sales
- c) How many volts were used in the above method of making magnets?

1dry cell ←→→1.5volts
In thediagram we have used 3 dry cells
3 dry cells←→3x1.5volts
=3x15

d) Name the pole marked **Q**. **North Pole**.