

END OF TERM II EXAMINATION 2017
PRIMARY SIX
INTEGRATED SCIENCE

Time allowed: 2 hours 15 minutes

Name: _____

School: _____

Read the following instructions carefully:

1. The paper has **two** sections: **A** and **B**
2. Section **A** has 40 questions (40 marks)
3. Section **B** has 15 questions (60 marks)
4. Answer **ALL** questions. All answers to both Sections **A** and **B** must be written in the spaces provided.
5. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.
6. Unnecessary crossing of work may lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.
8. Do **not** fill anything in the boxes indicated;
For Examiner's use only.

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Qn. No	MARK	SIGN
1 – 10		
11 – 20		
21 – 30		
31 – 40		
41 – 43		
44 – 46		
47 – 49		
50 – 52		
53 – 55		
TOTAL		

Turn over

SECTION A

(Questions in this section carry 1 mark each)

1. Name any living thing which makes its own food using sunlight.

2. Give one function of the liver in the body.

3. Why is a housefly regarded as a vector?

4. How useful are halteres to an insect?

5. Name any one natural source of water

6. Name the class of food needed for strengthening bones and teeth.

7. State one way in which sunshine may be a disadvantage to a crop farmer.

8. State any one way in which termites depend on soil.

9. Give one traditional method of preserving millet.

The diagram below shows a First Aid equipment. Study it and answer question 10.

10. How is the structure above useful to a first Aider?

11. Apart from mushrooms, name one other plant that reproduces by means of spores.

12. Why is mercury used in a thermometer instead of water?

13. Give one example of a plant with prop roots.

14. How does mulching help to keep moisture in the soil?

15. Name the insect which is very dangerous to cattle.

16. Why is there plenty of oxygen in places with thick green plant cover?

17. Give one way in which man uses heat from the sun.

18. Suggest any one example of a plant that undergoes hypogeal germination?

19. Give one way in which feathers are important to birds.

Use the experiment below to answer question 20.

20. By what process does heat from the bulb reach the hand?

21. Name the part of a flower that holds the anther head.

22. What is inbreeding as known in cattle keeping?

23. Give any one modern way of preserving butter.

24. Identify one health habit that encourages the spread of HIV/AIDS.

25. Name the germ that causes heart water disease in cattle, sheep and goats.

26. What type of change is evaporation and transpiration?

27. Why are ducks and geese grouped together?

28. What would you do in order to keep snakes away from your home?

29. Convert 68°F to °C.

Use the diagram of a living organism below to answer questions 30 and 31.

30. Name the part marked with letter **P**.

31. How does the organism above reproduce?

32. Give any one advantage of seed dispersal to plants.

33. Apart from soil erosion, mention one other natural cause of environmental degradation.

34. What is the use of the tiny hairs found in the nostrils of man?

35. Name the main natural source of light in the environment.

36. Why is a tick called a parasite?

37. Which form of energy is stored in the food that we eat?

38. What name is given to the male gametes in cattle?

39. How is the seed shown above dispersed?

40. Give any one disease of the respiratory system.

SECTION B

41a) What is a natural resource?

(b) Mention any two examples of natural resources in our environment.

(i)

(ii)

(c) State any one way in which wells are polluted.

42a) what do we call the type of cattle kept for:

(i) Milk production

(ii) Beef production

(b) Apart from restriction of animal movements, state one other advantage of the paddock method of grazing cattle.

(c) Name the method of grazing which involves tying the animal on a rope.

43(a) What is water?

(b) name the two types of water .

(i) _____

(ii) _____

(c) why is water obtained through filtration not necessarily recommended for drinking?.

44. The diagrams below show two types of root systems. Study them carefully and answer questions that follow.

(a) Identify the root system labelled with letters **T** and **u**.

(i) **T** _____

(ii) **u** _____

(b) Give one example of crops with root system **u**.

(c) In which way are roots useful to plants?

45. The table below shows rock types and examples of rocks. Complete it by filling in the blank spaces.

(a)

	A (TYPE OF ROCK)	B (EXAMPLES OF ROCKS)
(i)	Igneous	_____
(ii)	_____	limestone
(iii)	_____	granulite/marble/schist/anthracite

(b) What is an alloy?

46a) Give any two types of records one can find on a dairy farm.

(i) _____

(ii) _____

(b) State any two problems that a farmer can face if he/she does not keep dairy farm records.

(i) _____

(ii) _____

47(a) What is apiary?

(b) State two causes of swarming in bees.

(i) _____

(ii) _____

(c) Give one reason for putting a queen excluder in a modern beehive.

48. The diagram below shows a human digestive system. Study it carefully and answer the questions that follow.

a) Name the parts marked A and C.

(i) A _____

(ii) C _____

(b) Name the enzyme that is produced in part B during digestion.

(c) State the importance of the ileum during the process of digestion.

49a) Give any four ways in which a maize plant is different from a bean plant.

- (i) _____

- (ii) _____

- (iii) _____

- (iv) _____

50a) which part of the body is affected by each of the following diseases?

- (i) Conjunctivitis _____
- (ii) Polio _____
- (b) Give the best way of preventing nutritional deficiency diseases among school going children.

(c) State the vector that spreads rabies in a community.

51a) Name any two things you can use to keep your fingernails short.

- (i) _____
- (ii) _____
- (b) Give one reason why you should keep your fingernails short.

(c) Give any one disease that you can get by shaking hands with an infected person.

52a) Mention any two kinds of information you can find on the child health card.

- (i) _____
- (ii) _____

(b) Give two ways in which a child health card is useful to a health worker.

(i) _____

(ii) _____

53. The diagram below shows the structure of a human tooth. Study it carefully and answer the questions that follow.

a) Name the part marked with letter **Y**.

(b) Which letter on the above diagram shows the most sensitive part?

(c) Mention one disease of teeth.

(d) Suggest one way a person can keep his/her teeth in good health.

54. Use the lists of musical instruments below to answer questions that follow.

A	B	C
- tube fiddle - violin	- flute - whistle	- xylophone - thump piano

a) To which group of musical instruments do instruments in **C** belong?

(b) How can a musician increase or decrease the pitch of instruments in **A**?

(c) Mention any one other instrument that belongs to those in list **B**.

(d) State the difference between instruments in list **A** and list **B** in the way they produce sound.

55. The diagram below shows respiratory organs. Use it carefully to answer the questions that follow.

a) Name the part marked with letter **C**.

(b) How important are the parts labelled with letter **B**?

(c) Mention one reason why part **A** is made up of rings of cartilage.

(d) Name one disease which attacks the above organ.

Good Luck

P.6 Science Marking Guide End of Term II 2015

1. plants
2. to make (produce) iron/To produce insulin/Regulate sugars in the body/To remove toxins from the body
3.because it spreads germs that cause diseases
4. To balance the insect in flight
5. Fungi feed saprophytically
6. Mineral salts
7. Sunshine may dry a farmer's crops before they mature.
8. Sand soil
9. Sun drying
10. A first Aider uses the above structure to carry a casualties without increasing pain
11. Ferns/Liverworts/Mosses/Horsetails
12. Mercury expands due to heat while water reduces in volume/Mercury does not stick on the walls of a thermometer whereas water sticks
13. Maize/sorghum/sugarcane
14. Mulches prevent sunshine from reaching the soil hence heat is reduced/Mulches trap moisture from the soil.
15. Tsetse fly
16.because plants release oxygen during photosynthesis
17. Sun drying harvested crops/drying clothes/ converting sun's heat to solar energy
18. The process of a seed growing into a seedling whereby the cotyledons remain in the soil as the shoot rises above the ground.
19. Feathers keep birds warm/Feathers enable some birds to fly in air.
20. By radiation
21. Filament
22. The mating of very closely related animals.
23. Tinning (canning)/Refrigeration
24. Having unprotected sex with an infected person
25. Protozoa
26. Evaporation is the loss of water in form of vapour from water bodies and land whereas transpiration is the loss of water vapour from plants through leaves to the atmosphere.
27. Both ducks and geese have webbed feet/Both have broad beaks with cross plates
28. Keep grass short/Avoid overcrowding things in the house/Spraying the surrounding bushes/Keep rats and crawling

insects/Remove heaps of wood and stones near the house/Let plants (flowers) be well aerated to avoid warm hidden places

29. $\frac{5}{9}(F - 32)$
 $\frac{5}{9}(68 - 32) = \frac{5}{9} \times 36$
 $= 20^{\circ}\text{C}$
30. Nucleus
31. By means of binary fission
32. This is the cutting of the side branch for use.
33. Silting/Strong winds/Hailstones/floods/land slides/volcanic eruptions/tsunamis
34. To trap germs and dirt that may enter the body through the nostrils.
35. Transparent objects allow light to pass through while an opaque object does not allow light to pass through.
36. A tick is called a parasite because it feeds on the blood of its victim without killing it.
37. ...chemical energy
38. Sperms
39. The seed above is blown (carried away) by wind.
40. Choking/hiccup/sneezing
41. –
 - (a) Things that were created by God that we can use to meet our needs.
 - (b) Plants/land/water/animals/minerals
 - (c) Silting/waste disposal/oil spills/animal grazing near wells
42. –
 - (a) (i) Jersey/Gurnsey/Ayrshire/Brown swiss/Sahiwal
(ii) Boran/Hereford/ Aberdeen Angus/Short horn Galloway/Beef master charolais
 - (b) Pasture is fully utilized/It gives pasture enough time to grow/It prevents overgrazing/Animal dung is collected in one place/It breaks the lifecycle of ticks
 - (c) tethering
43. –
 - (a) Food chain is the mechanism by which organisms in the environment find what to eat.
 - (b) (i) plants
(ii) foxes, dogs, cheetahs, lions, leopards, jackals
 - (c) They clear our environment of the decomposing flesh hence avoiding bad smell and spread of diseases. They can

be used to locate dead bodies of animals and people.

44. –

- (a) T – Tap root system
U – fibrous root system
- (b) Millet/maize/wheat/rye/sorghum/rice/barley
- (c) Roots absorb water and mineral salts from the soil/They hold the plant firmly in the ground/Some plants store food in their roots

45. –

- (a) Basalt/granite/quartz
- (b) Sedimentary
- (c) Metamorphic
- (d) An alloy is a mixture of two or more metals.

46. –

- (a) Breeding records/Labour records/Income & expenditure/Production records/marketing records/feeding records
- (b) A farmer may not tell the trend of milk production/A farmer may not tell how many labourers he/she needs/A farmer may not tell whether they are making losses or gains/When animals fall sick he/she may find it difficult to treat them/Difficulty in paying taxes

47. –

- (a) Apiary is a farm of bees
- (b) Leakage in a hive/birth of another queen bee/death of a queen bee/attack from be enemies
- (c) To prevent the queen bee from crossing to honey chamber and mix eggs with honey

48. –

- (a) A – cork/stopper B – vacuum
C – vacuum seal
- (b)by preventing heat loss by conduction since it is a bad conductor of heat.

49. –

- (a) Maize has a pararel vein whereas beans have network venation/Beans have tap root system whereas maize have fibrous root system/Beans have two cotyledons whereas maize has one/Beans undergo epigeal whereas maize undergoes hypogeal germination/Some bean plants climb other plants for support whereas maize plants do not climb/Maize plants have simple lanceolate leaves whereas

bean plants have compound trifoliate leaves.

50. –

- (a) (i) the eyes (ii) the limbs/hands & legs
- (b) Feeding school going children on a balanced diet
- (c) Infected dogs (Reject dogs)

51. –

- (a) Razorblade/nail-cutters
- (b) To avoid germs hiding in them/For easy cleaning of hands and other body parts
- (c) Cholera/Marburg/ebola/flu/dysentery

52. –

- (a) Child's name; Parents name; age; sex; date of birth; immunization schedule; birth weight; vaccines already given
- (b) To monitor the child's growth rate/To know the next vaccine to be given/To identify the already given vaccine

53. –

- (a) Dentine
- (b) Letter X
- (c) Plague/periodontal gum disease/dental carriers tooth decay
- (d) Brushing teeth regularly (after every meal); visiting the dentist for regular check-ups, flossing

54. –

- (a) Percussion instruments
- (b) By tightening or loosening the strings
- (c) Records/trumpets/panpipes
- (d) In list A, instruments produce sound by vibration of strings while in list B, instruments produce sound by blowing air through or inside them.

55. –

- (a) Right lung
- (b) Part B helps in gaseous exchange
- (c) To keep open (erect)/To prevent it from collapsing
- (d) Tuberculosis/Bronchitis/Whooping cough/Pneumonia/Asthmal influenza/Diphtheria/Emphysema