

# CLEVERS' ORIGIN JUNIOR SCHOOLS

## PLE TEST 2022

### PRIMARY SEVEN

#### BASIC SCIENCE AND HEALTH EDUCATION

*Time allowed: 2 hours 15 minutes*

Index No.

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Candidate's Name: \_\_\_\_\_

Candidate's Signature: \_\_\_\_\_

School Name: \_\_\_\_\_

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.

#### FOR EXAMINER'S USE ONLY

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#### FOR EXAMINER'S USE ONLY

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: 40 MARKS

*Questions 1 to 40 carry one mark each*

1. Name the body sense that helps to tell the taste of sugar in tea.

.....

2. Give one reason why farmers mulch their gardens.

.....

3. Why does a fish die when removed out of the water?

.....

4. How does refrigeration prevent milk from going bad?

.....

5. Use the diagram to answer the questions that follow.



Identify one bird with this type of foot.

.....

6. How useful is such type of feet to this group of birds?

.....

7. What is the role of sunlight during photosynthesis?

.....

8. How is the use of a vent pipe different from that of a screen?

.....

9. Where does the tsetse fly lay its eggs?

.....

10. Give the importance of the garden tool below to a crop farmer.

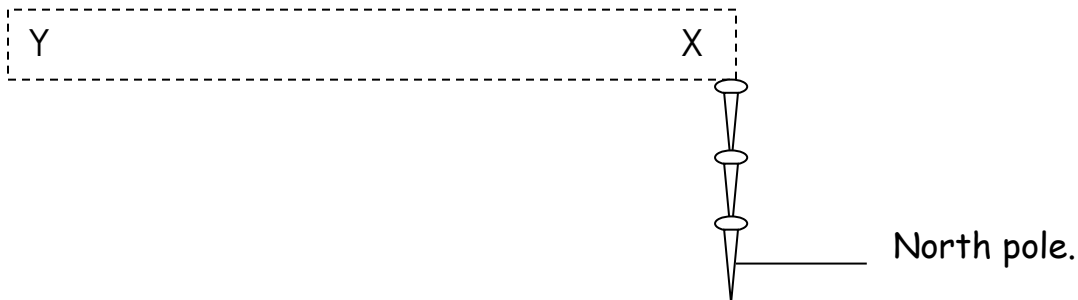


11. What physical process changes ice to gas?

12. Give one disadvantage of friction in machines as a nuisance force.

13. Give the use of a fuse in an electric circuit.

14. Study the diagram and answer the questions that follow.



Name the pole of the magnet marked X.

15. Identify the property of magnets shown above.

16. Apart from bats, name one vertebrate that makes echoes in the environment.

17. Identify any one sex offence common in schools today.

-

Name the importance of part Y to a pumpkin.

.....

28. Name one human activity that results into air pollution.

.....

29. Besides using a child health card, how can you identify a child who has been immunized against tuberculosis?

.....

30. Write one natural method of controlling rats in a home.

.....

31. How is a housefly useful in a home during the larvae stage?

.....

32. Give one importance of PIASCY messages at school.

.....

33. State one activity family members can do to promote personal hygiene.

.....

34. How is lightning formed during a thunderstorm?

.....

35. Why is an approaching plane seen before the sound is heard when it is overhead?

.....

36. How can you separate a mixture of sugar and powder of steel wire?

.....

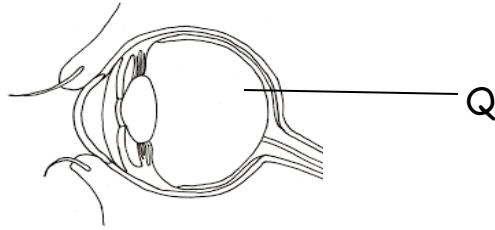
37. Give the importance of a health survey to the government.

.....

38. How important is a stretcher in carrying out first aid?

.....

39. Give the role of the part marked **Q** to the eye of a dog.



40. Why should a baby who has swallowed jik when washing be made to vomit?

### SECTION B

*Questions 41 to 55 carry four marks each.*

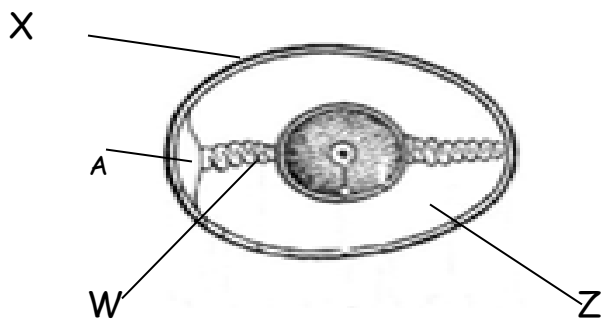
- 41 (a) What is germination?

- (b) Identify the type of germination undergone by ground nuts.

- (c) Besides water and oxygen, give one other condition necessary for seed germination.

- (d) What type of leaf venation does a ground nut have?

42. The diagram shows the internal structure of a bird's egg.



- (a) Name parts **W** and **Z**.

- (i) **W** .....
- (ii) **Z** .....

(b) Besides protection, give one use of part x to an egg.

.....

(c) Why may a fertilized egg fail to hatch?

.....

43. (a) Give any two problems an adolescent girl who gets pregnant may face besides dropping out of school.

(i) .....

(ii) .....

(b) Identify any two groups of people who are vulnerable to AIDs.

(i) .....

(ii) .....

44. Match items in A with those in B.

**A**

**B**

(i) Storage of semen

Carbon dioxide

(ii) Welding metals

rare gases

(iii) Making electric bulbs

Oxygen

(iv) Preservation of drinks

Carbon monoxide

Nitrogen

(a) Storage of semen.....

(b) Welding metals .....

(c) Making electric bulbs.....

(d) Preservation of drinks.....

45. (a) Identify any one common drug of dependence.

.....

(b) Give one reason why people commonly abuse drugs.

.....

(c) State any two dangers of drug abuse to:

(i) an individual

.....

(ii) a family

.....

46.(a) How is a strain different from a sprain?

.....

.....

(b) Write down any one disorder of the;

(i) Muscles

.....

(ii) Bones

.....

(c) Give one health habit that helps to keep the skeletal system in healthy working condition.

.....

47. The diagram shows a domestic appliance. Use it to answer questions that follow.





a) Name part **C**.

.....

(b) How does part **B** work?

.....

.....

(c) Name any one material used to make part **A**.

.....

(d) Give one use of the instrument above at home.

.....

48. (a) Name one natural component of soil.

.....

(b) A part from weathering, give one way how soil is formed.

.....

(c) What role do earthworms play in soil formation?

.....

(d) What is soil exhaustion?

.....

49. **The diagram shows a natural process in our environment. Use it to answer questions that follow.**

Grass

grasshopper

bird

snake

- (a) Use arrows to show the relationship between the organisms numbered from 1 to 4.  
(b) What name is given to this kind of relationship?

.....

- (c) What is the scientific name given to organisms labeled 3?

.....

- (d) Give the role of part 4 in the environment.

.....

50. (a) What are inexhaustible resources?

.....

.....

- (b) Give two ways of conserving trees as a natural resource.

- (i) .....

- (ii) .....

- (c) How does a clay stove conserve heat?

.....

- 51a) To which group of vertebrates does a tadpole belong?

.....

- (b) Give one importance of tadpoles in our environment.

.....

- (c) How is breathing of a tadpole different from its adult?

.....

.....

- (e) Name one animal that belongs to the same family with tadpole.

.....

52. a) Apart from kidney, name one other excretory organ protected by the skeleton

.....

(b) Name the excretory product secreted by the kidneys.

.....

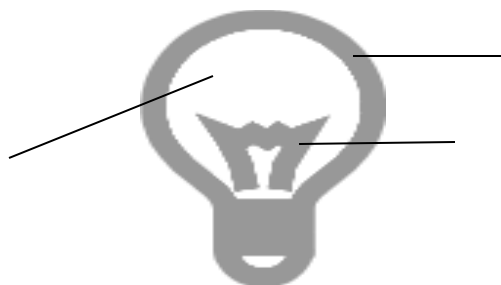
(c) Give one disease of the skin.

.....

(d) State one way of keeping the skin in a good working condition.

.....

53. The diagram below shows an electric lamp. Answer questions on it.



a) Name part R.

.....

(b) Why is oxygen gas not used in part S?

.....

(c) Give a reason why part T is usually coiled?

.....

(d) Identify any one gas found in part S.

.....

54a) Give the importance of pulley at school besides pulling up or down the school flag.

.....

(b) Calculate the effort needed to lift a load of 200N using a single movable pulley.  
(2 marks)

(c) Give one factor that may reduce the efficiency of a pulley.

.....

55. a) What is food preservation?

.....

.....

(b) Name two modern methods of food preservation.

(i) .....

(ii) .....

(c) What is food insecurity in the conservation of food?

.....

END

## **P.7 Science PLE PREP 7 Marking guide 2017**

1. Tasting / sense of taste.
  2. To conserve soil moisture/ soil fertility/control erosion/ weeds
  3. The gills dry out in the free dry air.
  4. Prevents the bacteria from multiplying / keeps bacteria dormant
  5. Parrots/ wood peckers
  6. For climbing trees
  7. Provides sunlight (heat) energy
  8. A vent pipe takes out bad smell / stale air from the pit while a screen helps to trap house flies.
  9. It hatches its eggs inside the abdomen and lays the larvae in the soil.
  10. To dig rocky soil / To harvest root crops / To narrow the garden
  11. Sublimation
  12. Slows the speed of machines / causes wear and tear / cause unnecessary heating in machines
  13. To protect electric appliances from damage in case of a surge / power outage.
  14. North pole
  15. A magnet is stronger at the poles.
  16. Whales / Dolphins
  17. Rape / Defilement/ Abortion/ Sodomy/ Lesbianism.
  18. Leads to competition for oxygen since plants also use it for respiration at night.
  19. To leave room for contraction on cold days/ To prevent breaking of wires due to contraction during very cold weather.
  20. Potato weevils.
  21.  $D = \frac{M}{V} = \frac{10g}{40cc} = \frac{1}{4} = 0.25g/cc$
  22. Washing hands after using the latrine / toilet washing fruits and vegetables before eating.
  23. Tendons join muscles to bones.
  24. Wasps / soldier ants / blank ants
  25. 5 months / 150 days
  26. To kill parasites / germs / remove odour (bad smell)
  27. To produce / store pollen grains.
  28. Bush burning / poor waste disposal / release of industrial wastes / dumping of chemicals/exhaust fumes from driving vehicles.
  29. Checking the scar on the right upper arm
  30. Using cats to eat rats/ some communities hunt and eat them.
  31. The maggots help to reduce the volume of faeces (break down faeces) in a pit latrine.
  32. To prevent children from dropping out of school / prevent them from STDs/ prevent early marriages / early pregnancies.
  33. Bathing/ washing clothes / brushing their teeth/ ironing clothes / grooming hair and nails
  34. Friction between clouds / discharge of electrons from one charged cloud to another/ discharge of electrons from clouds to the earth or positively charged objects on earth
  35. Light travels faster than sound./ speed of light is faster than speed of sound.
  36. Using a magnet to attract the iron powder.
  37. To help for social services
  38. To transport (carry) casualties who can't walk
  39. To form images
  40. It may lead to damage of other body
- ### **SECTION B**
41. -
    - a) Development of a seed into a seed ling
    - b) Epigeal germination
    - c) Warmth / Optimum / right temperature
    - d) Reticulate / network venation
  42. -
    - a) (i) chalaza / twisted albumen  
(ii) Germinal disc/ embryo
    - b) To give shape / To allow gaseous exchange as it is porous.
    - c) If the air space is blocked / embryo dies / the embryo fails to get air and moisture/ when the egg is cracked.
  43. -
    - (a) Forced marriage / early marriage / may get STDs/ may suffer social stigma/ rejection by parents or boy friend / may risk abortion / die in course of delivery.
    - (b) Distant truck drivers / business men/ traders/ street kids/ soldiers in front line areas / policemen on duty away from home / street sex workers/ prostitutes.
  44. (a) - Storage of semen - Nitrogen  
(b)Welding metals - Oxygen  
(c)Making bulbs - Rare gases  
(d) Preservation - Carbon dioxide
  45. -(a) Alcohol /tobacco / Mirra / Marijuana/ Khat/ Opium/ Cocaine  
(b)To feel happy / warm/ join peer groups / wrong adverts / feel mature.

- (c) (i) brain damage / personal neglect / loss of job  
(ii) Loss of family income / spouse abuse / family neglect

46. - (a) Strain is a torn or overstretched tendon while sprain is a torn or over stretched ligament / strain affects muscles while a sprain affects joints.

- (b) (i) cramp / spasm/ tear of muscles / cuts  
(ii) crack / fracture

(c) Eating a balanced diet / physical exercises.

47. -

- a) Vacuum seal  
b) Prevents heat loss or gain by radiation  
c) Wood / plastic / rubber  
d) To keep hot things hot or cold ones cold.

48. (a) Bacteria / earth worms/ termites / living organisms

(b) Decomposition of organic matter

(c) They aerate the soil / their droppings make soil fertile

(d) Loss of soil fertility due to over use

49. -

- (a) Grass - Grass hopper → Bird → snake  
(b) Food chain  
(c) Primary consumers  
(d) They make food / purify air / give Oxygen

50. -

- a) Resources that can not be used up  
b) Afforestation / re-afforestation / agro-forestry  
c) It retains heat and loses it slowly because it is an insulator of heat

51. -

- a) Amphibians  
b) They control malaria by eating the larvae  
c) A tadpole uses gills while the adult uses lungs or moist skin.  
d) Newts / Salamanders / blind worms/ cecilians

52. -

- a) **Lungs**  
b) Urine  
c) Scabies/ Eczema / Ring worms / skin cancer  
d) Eating a balanced diet / bathing regularly/ avoid bleaching / tattooing / piercing the skin.

53. (a) glass envelop / glass bulb / globe

(b) Oxygen supports burning so it would burn off the filament

(c) To increase the surface area for healing / electrical resistance.

(d) Nitrogen / neon / argon / xenon / krypton

54. (a) Drawing curtains / taking up building materials

$$(b) E = \frac{L}{MA} \quad / \quad E = \frac{200N}{2} \quad / \quad E = 100N$$

(c) Friction / pull of gravity.

55. (a) A way of keeping food free from germs or contamination.

(b) Refrigeration / deep frying / pasteurization/ canning / tinning / bottling.