



# BROAD EXAMINATIONS®

## PRE-PLE SPECIAL SET 2022 INTEGRATED SCIENCE

Time allowed: 2 hours 15 minutes.

Index No.

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Candidate's Name: .....

Candidate's Signature .....

EMIS Number: .....

District Name: .....

Read the following instructions carefully:

1. This paper is made up of 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 in both sections A and B.
5. All answers must be written in the space provided in blue or black ball point pens and ink. Only diagrams should be done in pencil.
6. Unnecessary crossing of answers will lead to loss of marks.
7. Any hand writing, which cannot be easily read, may lead to loss of marks.
8. Do not fill anything in the boxes indicated for Examiners' use only.

Pre-PLE Special Set 2022

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USE ONLY

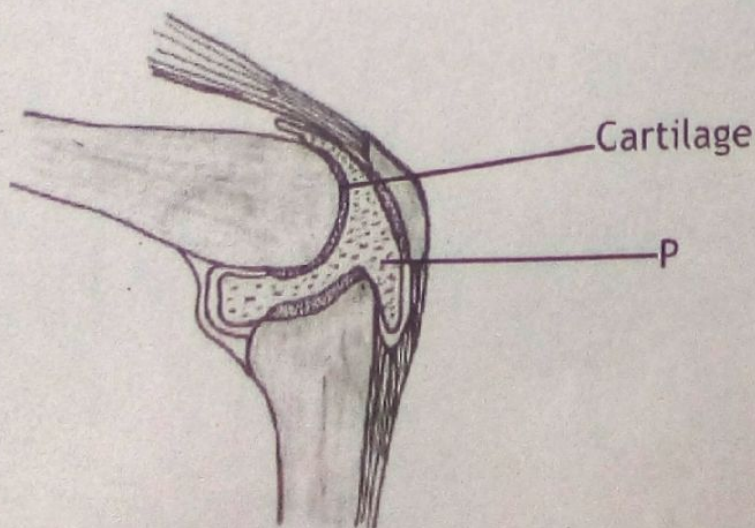
QN.No	MARKS	SIGN
1-10		
11-20		
21-30		
31-40		
41-43		
44-46		
47-49		
50-52		
53-55		
TOTAL		



SECTION.A. (40 MARKS)

1. Name the first type of teeth that develops in man.  
.....
2. State one importance of adding crushed egg shells in layers mash.  
.....  
.....
3. Apart from grafting, mention one other artificial method of propagating fruit trees.  
.....
4. Why does salt disappear when mixed with salt and stirred?  
.....  
.....
5. Name the weather instrument used to measure speed of wind.  
.....
6. Mention one factor considered when selecting a site for a nursery bed.  
.....  
.....
7. How is a microscope useful in a hospital?  
.....  
.....

The diagram below shows a hinge joint. Study and use it to answer question 8.





8. State the function of fluid marked P.

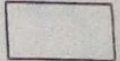
.....  
.....

9. Name the type of alcohol used to kill germs on surfaces.

.....

10. How is condensation an important physical process in the water cycle?

.....  
.....



11. Name the crop growing practice that reduces the weight of some crops.

.....

12. State one danger of using hard materials like plant leaves in toilets.

.....

13. Give one reason why a sick person should be given fruit juices.

.....  
.....

14. Mention any one example of antisocial behaviours.

.....

15. How is the breeding of a blackfly different from that of a mosquito?

.....  
.....

16. Give one way in which plants depend on soil in the environment.

.....  
.....

17. How does salting help to preserve fish at home?

.....  
.....

The diagram below is about food chain. Study and use it to answer question 18 and 19.

Grass → Grasshopper → Snake → Vulture

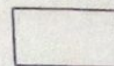


18. What do arrows show in the above food chain?  
.....  
.....
19. What name is given to a snake in the above food chain?  
.....  
.....
20. Give one way hookworms enter the human body.  
.....  
.....
21. Name the rabbit disease that also affects people.  
.....
22. How can a P.7 pupil find the volume of an irregular object?  
.....  
.....
23. Which substance do bees use to repair their hive?  
.....
24. State the use of splints in giving first aid for fractures.  
.....  
.....
25. How is a child health card important to a health worker during immunization?  
.....  
.....
26. State the function of bile salts in the human digestion.  
.....  
.....
27. How does the use of biogas help to conserve the environment?  
.....  
.....
28. Mention one use of friction to a farmer using a panga.  
.....  
.....



29. Give one way of promoting control of communicable diseases as an element of Primary Health Care.

30. How can the strength of an electromagnet be increased?



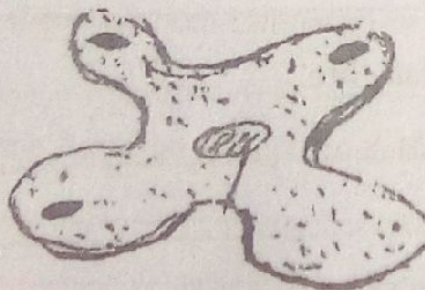
31. Mention one method used to remove impurities from dirty water.

32. Why should minerals be used sparingly?

33. Give one method used to control external parasites in cattle.

34. How is rusting dangerous to crop farmers?

The diagram below shows a blood cell. Study and use it to answer question 35.



35. State the function of the above cell in the human body.

36. State one way pupils in a school can inform people in the neighbouring community about health matters.



37. Why should pregnant mothers feed on enough iron rich foods?

.....  
.....

38. Name the communicable intestinal disease that results into blood stained diarrhoea.

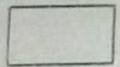
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39. How does cutting down of trees lead to soil erosion.

.....  
.....

40. Name one modern method used to harvest trees needed for electricity poles.

.....



SECTION .B. (60 Marks)

41. (a) Apart from pulleys, name two other classes of simple machines.

(i).....

(ii).....

(b) Which type of pulley do users apply effort equivalent to the load?

.....

(c) Mention any one use of pulleys in our daily life.

.....

42. (a) Mention two causes of food insecurity in the community.

(i).....

(ii).....

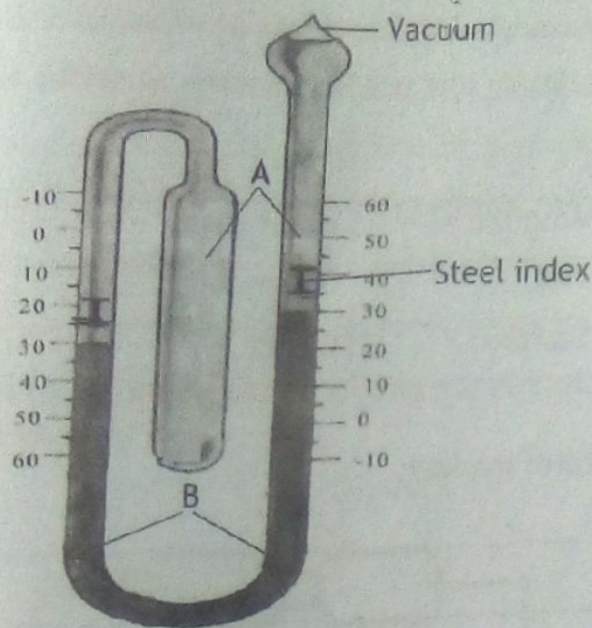
(b) Write two ways of promoting food hygiene.

(i).....

(ii).....



The diagram below shows a certain thermometer. Study and use it to answer question 42.



43. (a) Name the type of thermometer in the above.

(b) Which liquid is marked with letter A?

(c) State the maximum temperature in the above thermometer.

(d) Give the function of vacuum in the above thermometer.

44. (a) What happens to the following muscles when the arm is bent?

(i) Biceps

(ii) Triceps

(b) To which type of muscles do muscles of the intestines belong?



(c) State one function of muscles in the human body.

The table below shows animals. Study and use it to answer question 44.

A	B	C	D
Cat	Chameleon	Mosquito	Water snail
Dog	Tortoise	Tick	Octopus
Lion	Snake	Scorpion	Oyster

45. (a) Name the group of invertebrates marked;

(i) C .....

(ii) D .....

(b) Which way are animals in group A similar to those in B in terms of reproduction?

(c) Name the class of warm blooded vertebrates included in the above table.

46. (a) State two raw materials plants use to manufacture food.

(i).....

(ii).....

(b) What name is given to the process in which plants manufacture food?

(c) How does the process you have named above benefit animals?



47. (a) Which type of manure is obtained from animal dung and urine?

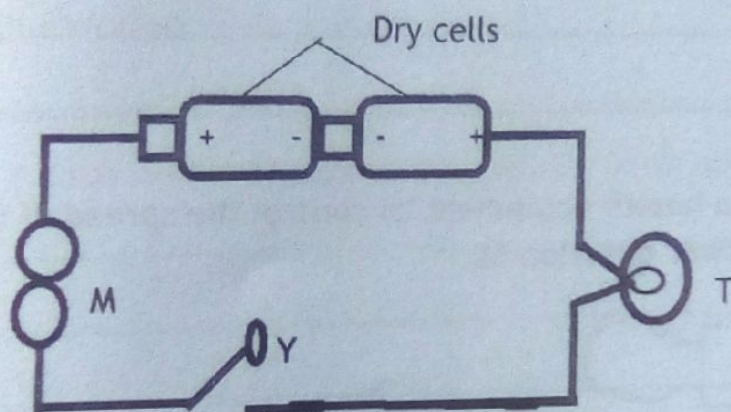
(b) How are bacteria important in the formation of manure?

(c) State two advantages of using organic fertilizers.

(i).

(ii).

The diagram below shows an electric circuit. Study and use it to answer question 47.



48. (a) Name one gas commonly used in part marked T.

(b) Under what condition does part marked M work?

(c) State the energy change that occurs in dry cells when part Y is closed.

(d) For what reason would one connect an ammeter on an electric circuit?



49. (a) Mention two examples of spore bearing plants.

(i).....

(ii).....

(b) State one similarity between mushrooms and spore bearing plants.

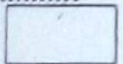
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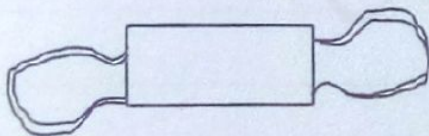
(c) Mention one condition that favours the growth of spore bearing plants.

.....

.....



The diagram below shows a health equipment to control the spread of COVID-19. Study and use it to answer question 50.



50. (a) Name the above equipment.

.....

(b) How is the above equipment helpful in the control of COVI-19?

.....

.....

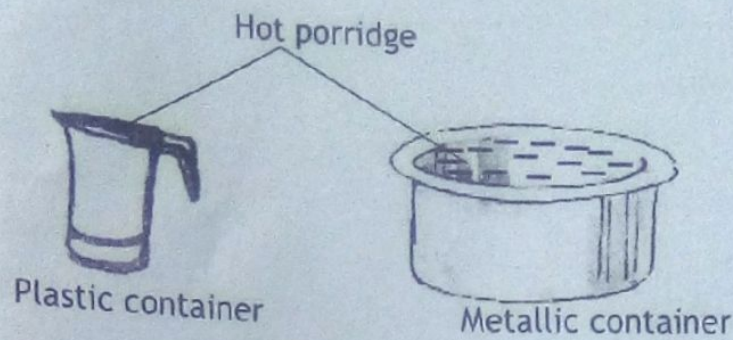
(c) Mention two other ways of preventing the spread of COVI-19.

(i).....

(ii).....



The diagram below shows cooling containers. Study and use them to answer question 51.



51. (a) Which container cools porridge faster?

.....

(b) Give a clear reason to support your answer in (a) above.

.....

.....

.....

(c) Which process enables porridge to cool?

.....

(d) To which type of changes does the above process you have named belong?

.....

52. (a) Name the type of germination which occurs in;

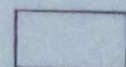
(i) Monocotyledonous seeds.....

(ii) Dicotyledonous seeds.....

(b) Write down two conditions necessary for germination to take place.

(i).....

(ii).....





53. (a) State the function of the following parts of the male human reproductive system;

(i) Testes

.....  
.....

(ii) Epididymis

.....  
.....

(b) State two secondary sex characteristics that occur in both boys and girls.

(i).....

(ii).....

54. (a) What important process takes place in the cortex of the human kidney?

.....

(b) Name any one disease that affects the kidneys.

.....

(c) Give any two ways of maintaining proper functioning of the kidneys

(i) .....

(ii) .....

55. (a) State the function of the following parts of the lens camera.

(i) Film

.....  
.....

(ii) Shutter

.....  
.....

(b) Mention two similarities between the human eye and the lens camera.

(i).....

(ii).....

END

