



BROAD EXAMINATIONS®

PRIMARY LEAVING SPECIAL EXAM

2023

INTEGRATED SCIENCE

Time allowed: 2 hours 15 minutes.

Random No.					Personal No.		

Candidate's Name:

Candidate's Signature:

School 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 handwriting, which cannot be easily read, may lead to loss of marks.
8. Do **not** fill anything in the boxes indicated for Examiners' use only.

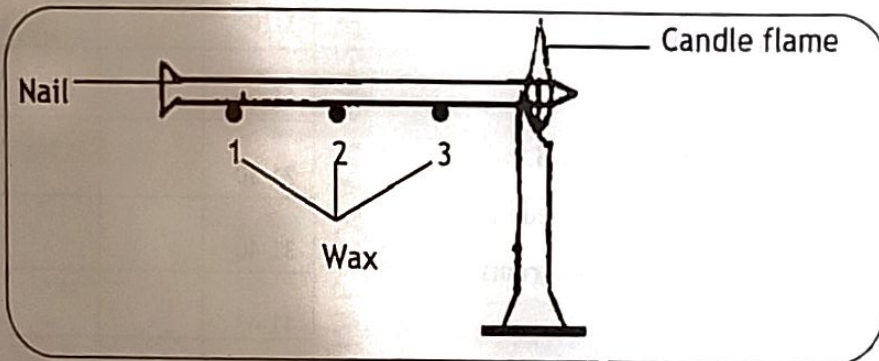
BROAD SPECIAL EXAM 2023

FOR EXAMINER'S USE ONLY		
QN.No	MARKS	INITIALS
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 any one vulnerable group of people found in your community.
.....
.....
2. Give any one crop growing practice that helps to maintain soil fertility in crop fields.
.....
.....
3. Give one way of preventing marasmus in young children.
.....
.....
4. State the reason why people suffering from malaria fever develop anaemia.
.....
.....
5. What type of germination do bean seeds undergo?
.....
.....

The diagram below shows heat transfer. Study and use it to answer question 6 and 7.



6. Name the means of heat transfer shown in the above diagram.
.....
.....
7. Why will wax 3 melt first?
.....
.....

8. State the method which can be used to separate paraffin from water.

.....
.....

9. Give any one bad effect of soil erosion in crop production.

.....
.....

10. State the recommended first aid that should be given to a victim of near drowning.

.....

11. What reason do farmers give for soaking some crop seeds before sowing them?

.....
.....

12. Name the component of air which is a byproduct of respiration in humans.

.....

13. Give any one characteristic that puts a bat in a group of mammals.

.....
.....

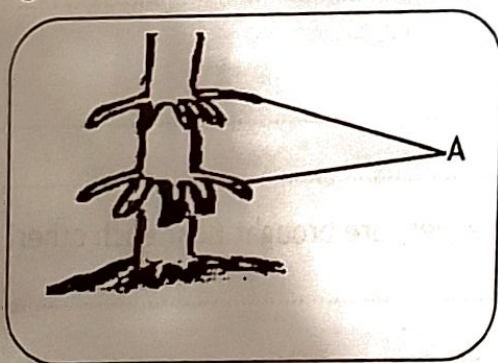
14. Name one disease that can break out to affect both poultry and rabbits on a mixed farm.

.....

15. How are tendons important in the musculoskeletal system of humans?

.....
.....

The diagram below is part of a maize plant. Use it to answer question 16.



16. Why do maize plants develop structures marked A at flowering stage?

17. State the importance of putting a lid on the squat hole of an ordinary pit latrine.

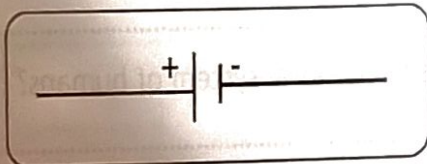
18. What important process takes place in the colon of the human digestive system?

19. Give any one way in which plants benefit from each other in the environment.

20. Name the eye defect corrected by wearing spectacles with concave lenses.

21. In which way is sorting an important step in cleaning clothes?

The diagram below shows a symbol of an electric circuit. Use it to answer question 22.



22. Name the component of an electric circuit represented by the above symbol.

23. State the function of suckers to a tapeworm.

24. What happens when similar poles of two magnets are brought near each other?

25. State any one function of placenta to a developing foetus in the womb.

26. Name one excretory waste removed from the body by kidneys.

27. Write down any one function of proteins in the human body.

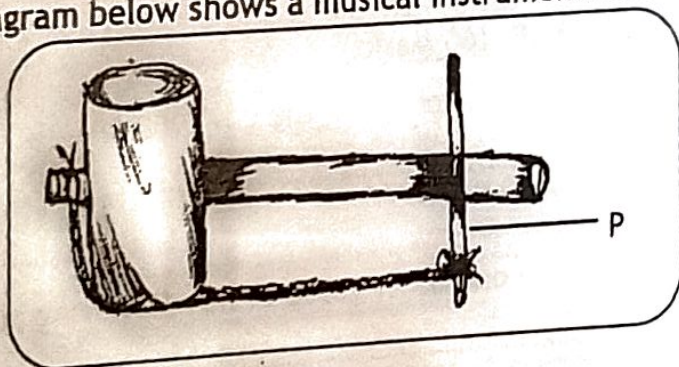
28. Give any one advantage of zero grazing in keeping of cattle.

29. What determines the sinking or floating of an object?

30. What mechanism do flowering plants use to prevent themselves from overcrowding in a given area?

31. In which way is the spread of gonorrhea similar to that of candidiasis in humans?

The diagram below shows a musical instrument. Use it to answer question 32.



32. How is part marked P useful in the use of the above musical instrument?

33. Give any one method used by beekeepers to extract honey from honey combs.
.....
.....
34. State one way cutting fingernails short controls diarrhoeal diseases in young children.
.....
.....
35. How are hot springs important in production of energy?
.....
.....
36. State the importance of the bacteria found in the root nodules of leguminous plants.
.....
.....
37. How are opaque objects useful in the formation of shadows?
.....
.....
38. What happens to the diaphragm when breathing in?
.....
.....
39. Give any one way of acquiring natural immunity.
.....
.....
40. Name any one vector that spreads a disease which affects human eyes.
.....

SECTION .B. (60 Marks)

41. (a) Mention any two examples of spore bearing plants in the environment.
(i)
(ii)
- (b) Apart from spore bearing plants, name one other group of non-flowering plants.
.....
- (c) In which way does the group you have mentioned in (b) reproduce?
.....
.....

42. (a) Name any two long bones found in the human leg.

- (i)
- (ii)

(b) What type of joint is found at the knee of a human leg?

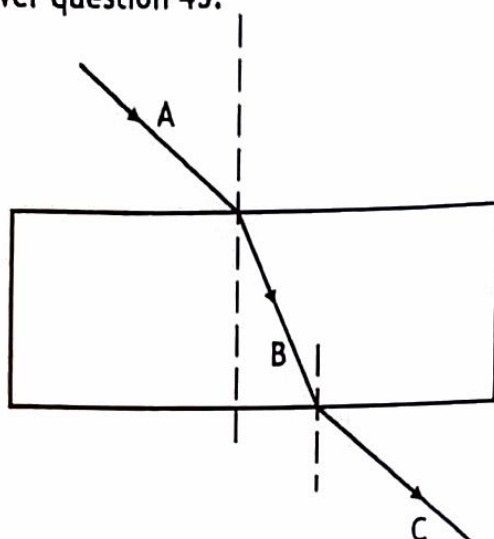
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(c) How do regular physical exercises reduce risks of getting sprains in footballers?

.....

.....

The diagram below shows a ray of light traveling from air to a glass block. Use it to answer question 43.



43. (a) Name the ray marked;

- (i) A.....
- (ii) C.....

(b) What does the above diagram prove in the study of light?

.....

.....

(c) State the difference between the bending of rays B and C.

.....

.....

44. (a) Give any two changes of states of matter caused by heat loss.

- (i)
- (ii)

- (b) Apart from the changes of states of matter, state one other effect of heat loss on matter.

.....

.....

- (c) Why are changes of states of matter said to be physical changes?

.....

.....

The diagram below shows the structure of the human heart. Use it to answer question 45.



45. (a) State the difference in blood carried by blood vessels marked M and N.

.....

.....

- (b) To which body organ does blood vessel marked K lead to?

.....

.....

- (c) How is the heart able to keep blood flowing in the same direction?

.....

.....

- (d) Use letter P to label the chamber of the heart that pumps oxygenated blood to all the body parts.

46. (a) Mention two factors that are considered by doctors when prescribing drugs for a patient.

(i)

(ii)

(b) Give two reasons why doctors prescribe drugs for patients.

(i)

(ii)

47. (a) Write down any two ways you can identify a dehydrated child.

(i)

(ii)

(b) Mention one major cause of dehydration in young children.

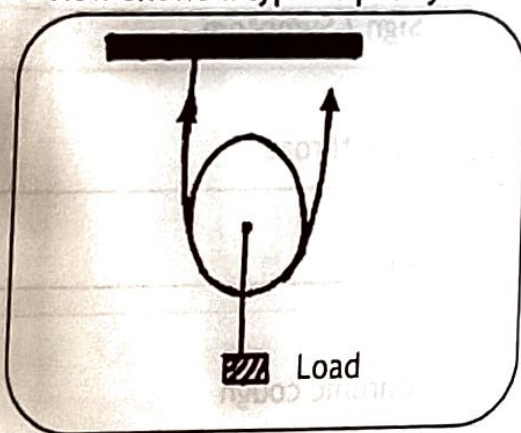
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(c) State the recommended treatment for dehydration.

.....

.....

The diagram below shows a type of pulley. Use it to answer question 48.



48. (a) Name the type of pulley in the above diagram.

.....

(b) What do arrows show in the above pulley?

.....

.....

(c) State one advantage of using the above type of pulley.

.....
.....

(d) Mention one activity that requires use of a pulley.

.....

49. (a) Name two conditions that lead to the formation of rust on iron metals.

(i)

(ii)

(b) State one danger of rusting in metallic tools.

.....

(c) In which way does painting prevent rust formation on metallic tools?

.....

.....

50. The table shows childhood immunisable diseases and their signs. Study and complete it correctly.



Disease	Sign / Symptom
(i)	Sore throat
Measles	(ii)
(iii)	Chronic cough
(iv)	Stiff muscles

51. (a) Mention any two signs of diseases in cattle.

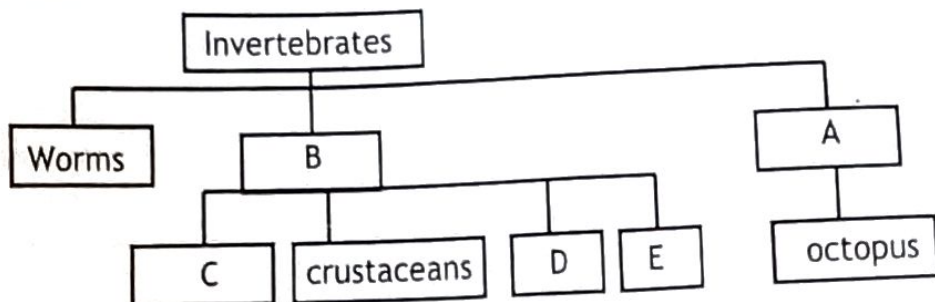
(i)

(ii)

(b) Name the disease control measure that stops the movement of cattle and their products from one area to another.

(c) Suggest any one way cattle diseases lead to losses in cattle management.

The flow chart below shows classes of invertebrates. Study and use it to answer question 52.



52. (a) Name the class of invertebrates marked;

(i) A

(ii) B.....

(b) State any one characteristic of organisms in B.

(c) Name one other organism that belongs to class marked A.

53. (a) Name two examples of living renewable resources in the environment.

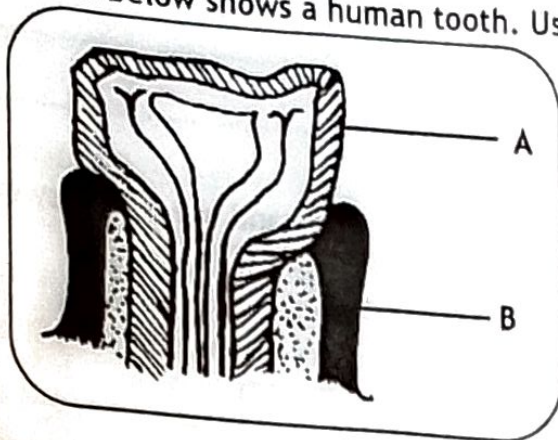
(i).....

(ii).....

(b) Which process enables multiplication of living renewable resources in the environment?

- (c) Mention any one human activity that conserves living resources in the environment.

The diagram below shows a human tooth. Use it to answer question 54.



54. (a) Name the parts of the tooth marked;

(i) A.....

(ii) B.....

- (b) State one way of hardening part marked A.

- (c) Which type of teeth is shown in the diagram above?

55. (a) What name is given to tuber crops that store their food in swollen underground stems?

- (b) Write two examples of pest damages in tuber crops.

(i)

(ii)

- (c) State one way of controlling pests in tuber crops without using chemicals.

END