



THE PRIME EXAMINATIONS 2023

**PRIMARY SIX END OF YEAR
INTEGRATED SCIENCE**

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Time allocated 2 hours 15 minutes



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READ THE FOLLOWING INSTRUCTIONS CAREFULLY

- This paper has **two** sections: A and B. Section A has **40** questions (**40 Marks**) and Section B has **15** questions. (**60 Marks**)
- Answer **ALL** questions. All answers to both sections A and B must be written in the spaces provided.
- All answers **must** be written using a **blue or black ball point pen or ink**. Any work written in pencil will **not** be marked.
- Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
- Do not fill anything in the table indicated

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QUESTION NUMBER	MARKS ATTAINED	INITIALS
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
TOTAL		

APPROVED:

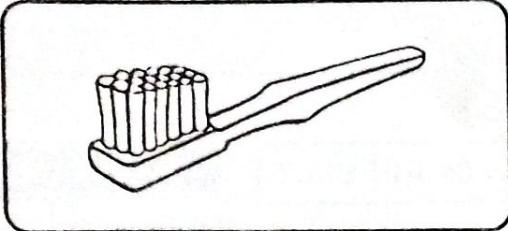
Consultant
Integrated Science Department (PEC)

PUBLISHERS OF:-

THE PRIME; SCHEMING FRAME WORKS, PUPIL'S WORKBOOKS, LESSON COURSE BOOKS, HOLIDAY PACKAGES, LEARNING GAMES, REVISION BOOKS, PLE ANALYSIS REPORTS AND MANY MORE.

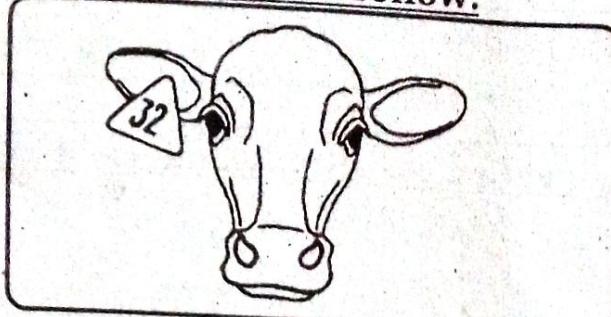
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Section A (40 Marks)

1. Give any one example of animal resource in the environment.
2. State any one practice done at home to prevent the spread of germs by houseflies.
3. Mention any one characteristic of mammals.
4. How does a stopper of a vacuum flask prevent heat loss or gain?
5. Name the condition that affects the proper functioning of the body.
- The diagram below shows a material used to promote personal hygiene. Study and use it to answer questions 6.
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6. How does the above material help to promote personal hygiene?
7. Which body system is responsible for transporting oxygen in the body?
8. Why is it advisable to wear dry shoes?
9. How does sunny weather affect crop growing?
10. Name the largest artery in the human body.
11. How is fertilization of birds different from that of a fish?
12. Give any one danger of having long finger nails.
13. What type of accident is got when a body gets in contact with a hot iron bar?

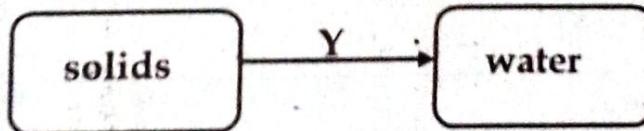
The diagram below shows cattle management practice. Study and use it to answer questions that follow.

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14. Name the cattle management practice shown in the diagram above.
15. Give the importance of the above practice to a cattle farmer.
16. Apart from producing ova, give one other role played by the ovaries.
17. How are cotton seeds propagated?
18. Give any one reason why it is necessary to wash fruits before eating.
19. Which body organ is affected by night vision?
20. State the importance of capillaries in a tooth.
21. Name the type of cattle kept for milk production.
22. Give the importance of a pumice stone when promoting personal hygiene.

The diagram below is about change in state of matter. Study and use it to answer questions 23 and 24.



23. Name the process marked Y.
24. Which form of energy enables process Y to take place in the diagram above?
25. State the meaning of the term *dental hygiene*.

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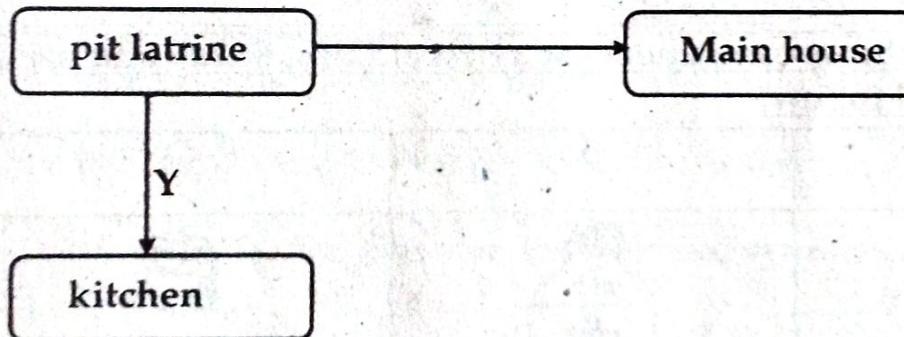
- WARNING: Not to be reproduced electronically**
26. In which one way does diarrhoea affect the body?
27. Give a reason for dipping the burnt part in clean cold water.
- The diagram below shows a boy playing with a ball. Study and use it to answer questions 28 and 29.
-
28. Which type of energy is possessed by the body at R?
29. Mention any one factor that affects the ball at K from the diagram above.
30. Write ECOSAN in full.
31. Name the first aid kit used for supporting a fractured man.
32. Mention the component of air needed for seed germination.
33. State the way how flowering plants reproduce.
34. How does suspension drying preserve skins and hides?
35. Why is the ileum long and coiled?
36. Mention any one disease of the human ear.
37. Name any one non-infectious disease.
38. How useful is the fencing of a livestock farm?
39. Why are strings of a bow harp made of different length?
40. Give any one use of food in the body.

Section B (60 Marks).

41. (a) Give the meaning of the term **water contamination**.
- (b) Mention any **one** example of water impurities.
- (c) State any **one** way of contaminating water at home.
- (d) How does fencing of water sources help to avoid water contamination?

42. (a) Give the meaning of **family planning**.
- (b) Why are pregnant mothers regarded as vulnerable?
- (c) State any **one** cause of still births in mothers.
- (d) Give any **one** way of preventing still births in mothers.

43. **The diagram below shows Mr. Agape's home, study and use it to answer the questions that follow.**



- (a) Give the use of a pit latrine to the people at this home.
- (b) Which distance is marked **Y** in the diagram above?
- (c) Why is distance **Y** left between the pit latrine and the kitchen?
- (d) State **one** disadvantage of constructing a pit latrine near a water source.

44. (a) How is a *scald* and a *burn* similar in terms of cause?

(b) Give two causes of scalds to man.

(i)

(ii)

(c) State any one way of preventing scalds at home.

45.

Match the process that takes place in the body to their meanings.

(i) Ovulation

is a periodic release of blood from the uterus.

(ii) Menstruation

this is when a mature ovum is released from the ovary.

(iii) Implantation

is the union of a male and a female gamete to form a zygote.

(iv) Fertilization

is a process by which the zygote gets attached on the walls of the uterus

(i) Ovulation

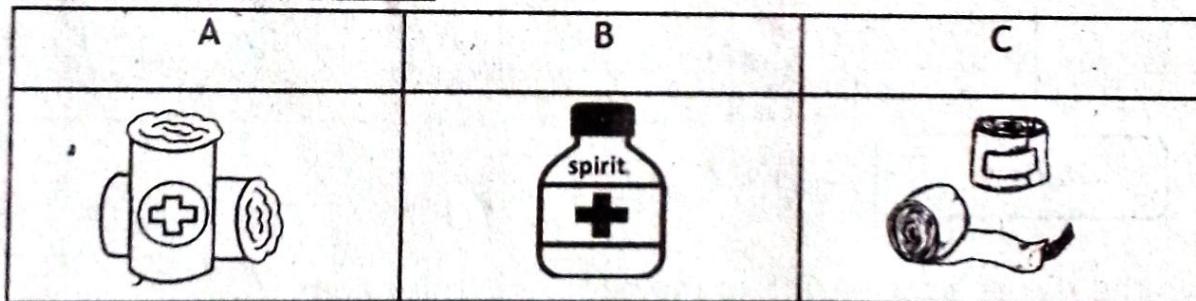
(ii) Menstruation

(iii) Implantation

(iv) Fertilization

46.

The table below shows components of a first aid box. Study and use it to answer the questions that follow.



(a) Name the material marked A from the diagram above.

(b) How useful is the material marked B when administering first aid?

(c) Why is it advisable to cover incised wounds with material marked C?

(d) How does a first aider check for blood circulation of a fainted victim?

47. Mr.Opio was seen covering top soil using coffee husks in Kamenke Village.
(a) Name the practice done by Mr.Opio.

(b) Give any two advantages of the practice named in (a) above.

- (i) _____
(ii) _____

(c) State one danger of the practice named in (a) above.

48. (a) Name any two tick borne diseases in cattle.

- (i) _____ (ii) _____

(b) Give any two signs of good health in cattle.

- (i) _____
(ii) _____

49. The diagram below shows a type of crop grown in the community. Study and use it to answer the questions that follow.



(a) Name the type of crop shown in the diagram above.

(b) Which food value do we get from eating the above food stuff?

(c) How can a farmer preserve the above type of food after harvesting?

(d) Name any one disease that affects the above crop.

50. (a) State any one living component of soil.

(b) Name the living organism that helps in the decomposition of organic matter.

(c) State any two ways in which decomposition is useful in the environment.

- (i) _____
(ii) _____

51. (a) Give one way of acquiring immunity.

(b) How is immunity important to the body?

(c) Name one disease that greatly affects the body immunity.

(d) Give any one way of boosting body immunity in babies.

52.

The diagram below shows a method of managing rubbish in the environment. Study and use it to answer the questions that follow.



(a) Name the way of promoting sanitation shown in the diagram above.

(b) Apart from the above, give two other ways of promoting sanitation in a home.

(i)

(ii)

(c) Name the vector involved in 4Fs germ path.

53.

(a) Write any one type of bacteria.

(b) State any one place where bacteria are found.

(c) Mention any two ways of killing germs in water.

(i)

(ii)

54.

(a) How is **moulting** and **ripening** of fruits similar?

(b) Mention the type of change that occurs in the stomach by the help of pepsin.

(c) State any two ways of managing body changes in adolescents.

(i)

(ii)

55.

(a) State any two causes of food insecurity.

(i)

(ii)

(b) Give one effects of food insecurity.

(c) Mention any one practice done to ensure food security.

THE PRIME P.6 INTEGRATED SCIENCE END OF YEAR MARKING GUIDE 2023.

Section A (40 Marks)							
NO	Answer	Competence	Topic/Sub-topic: Curr Pg.	Life skills	Values	C1 ass	L1 val
1.	▪ Meat (food)/ cow dung/ urine/ animal droppings.	Identifies animal resources.	Resources in the environment.	Environmental awareness	Appreciation	P.6	K
2.	▪ Covering the hole of ordinary pit latrines/ covering cooked food/ proper disposal of human wastes/ proper disposal of rubbish.	States ways of preventing germs.	Sanitation	Critical thinking	Care	P.4	C
3.	▪ Mammals have fur/ they feed their young ones on breast milk/ they are vertebrates.	Identifies characteristics of mammals.	Classification of animals.	Critical thinking	Logic	P.6	K
4.	▪ By conduction.						
5.	▪ Sickness/ illness/ disease.	Defines a disease/ sickness	Disease and vectors.	Critical thinking	Care	P.4	K
6.	▪ It removes food remains from teeth.	States the importance of promoting personal hygiene.	Personal hygiene	Critical thinking	Care	P.3	C
7.	▪ Circulatory system.	Identifies different systems in the body.	Circulatory system	Self awareness	Care	P.3	K
8.	▪ To prevent athlete's foot disease.	States ways of preventing skin diseases.	Personal hygiene	Creative thinking	Logic	P.6	C
9.	▪ It makes soil hard making roots unable to penetrate/ it dries soil/ it causes wilting/ drying of crops.	States the effects of sunny weather.	Weather changes around us.	Critical thinking	Concern	P.3	C
10.	▪ Aorta.						
11.	▪ Birds undergo internal fertilization while fish undergo external fertilisation.	Identifies the fertilisation of different animals.	Classification of organisms	Effective communication	Fluency	P.6	K
12.	▪ Finger nails hide germs/ harbour germs.	States the dangers of poor personal hygiene.	Personal hygiene	Self awareness	Concern	P.4	C
13.	▪ A burn/ burn.	Identifies different types of accidents.	Accidents, poisoning and first aid.	Critical thinking	Concern	P.4	C
14.	Ear tagging	Identifies the different management practices	Cattle keeping	Problem solving	Concern	P.6	K
15.	▪ For easy identification.						
16.	▪ Ovaries produce hormones (oestrogen/ progesterone)	Discusses the use of ovaries.	The reproductive system.	Self awareness	Care	P.5	K
17.	▪ By means of seeds/ by planting seeds.	Discusses how cotton is propagated	Classification of plants	Critical thinking	Logic	P.4	C
18.	▪ To remove germs/ to prevent easy spread of diarrhoeal diseases.	Gives ways of keeping food clean.	Food and nutrition	Critical thinking	Responsibility	P.4	C
19.	▪ The eyes.	Names different body organs that affect them.	Body organs	Empathy	Logic	P.4	K
20.	▪ Capillaries supply oxygen and digest food to the tooth.	States the use of blood capillaries.	The teeth	Self awareness	Care	P.4	C
21.	▪ Dairy cattle.	Identifies different types of cattle.	Cattle keeping	Critical thinking	Care	P.6	C
22.	▪ A pumice stone is used for scrubbing heels and soles of feet.	Discusses the use of pumice stone.	Personal hygiene				
23.	▪ Melting	Names different processes that involve in change of states of matter.	Heat energy	Critical observation	Logic	P.5	C
24.	▪ Heat energy	Names the forms of energy.					
25.	▪ Dental hygiene is the keeping of teeth clean.	Defines dental hygiene	The teeth	Problem solving	Care	P.5	C
26.	▪ Diarrhoea causes dehydration/death.	States the effects of diarrhoeal diseases.	Communicable intestinal diseases and worm infestation.	Critical thinking	Concern	P.4	C
27.	▪ To reduce the temperature of the burnt part.	States the first aid for burns.	Accidents and first aid	Problem solving	Care	P.6	C
28.	▪ Potential energy	Identifies types of energy possessed by an object.	Heat energy	Critical thinking	Logic	P.5	C
29.	Speed/ weight.	Writes ECOSAN in full.	Sanitation	Critical thinking	Logic	P.6	AS
30.	▪ Ecological Sanitation/Ecosystem Sanitation Convenience.						

31	* Arm sling	States the component of a first aid box.	Accidents, poisoning and first aid	Critical thinking	Care	P.6	C
32	* Oxygen	Names the conditions necessary for germination	Plant life	Critical thinking	Care	P.4	C
33	* By means of seeds.	Identifies the means of reproduction in plants.	Plant life	Critical thinking	Fluency	P.4	C
34	* Drains/ dehydrates/ removes moisture from skins and hides.	Describes suspension drying of cattle hides.	Keeping cattle	Problem solving	Logic	P.6	C
35	* To increase the surface area/ room for absorption of food.	States the reason why the ileum is long and coiled.	Digestive system	Effective communication	Appreciation	P.5	C
36	* Boil/ otitis/ ear cancer	Identifies the disease of the human ear	Body organ	Self awareness	Concern	P.4	K
37	* Marasmus/ kwashiorkor/ scurvy/ rickets/ lung cancer/ diabetes.	Mentions examples of non - infectious diseases.	Vectors and diseases	Environmental awareness	Concern	P.4	K
38	* It controls the spread of animal parasites/ it prevents animals from straying/ it prevents animals from destroying crops.	States the use of fences.	Cattle keeping	Creative thinking	Care	P.6	C
39	* To produce different pitch of sound when plucked.	States features of string instruments.	Sound energy	Critical thinking	Logic	P.6	C
40	* Food provides energy/ builds the body/ repairs worn out body tissues.	States the use of food in the body.	Food and nutrition	Critical thinking	Appreciation	P.4	K

Section B (60 Marks)

41.	(a) Water contamination is a way of making water dirty. (b) soil/ silt/ polythene papers/ animal wastes (c) Collecting water using dirty jerricans/ containers/ touching water with dirty hands. (d) It prevents animals from defecating in water sources/ it prevents animals from drinking in water sources.	Defines water contamination	Science at home and in our community.	Creative thinking	Logic	P.6	K
42	(a) Family planning is the using of birth control methods to determine when to have or not to have a child/ children. (b) They need special care and diet/ if not cared for they can easily lose their lives. (c) Sickness/ smoking tobacco/ road traffic accidents/ fighting. (d) Going for antenatal care and diet/ proper feeding/ going for early treatment in case of an infection.	Defines family planning	Reproduction system	Effective communication	Fluency	P.6	K
43	(a) A pit latrine is used for defecation and urination/ proper disposal of faeces. (b) 10 metres. (c) To avoid contamination by flies/ to prevent bad smell. (d) Human wastes contaminate water sources.	Identifies the type of latrines and ways of managing them.	Sanitation	Critical thinking	Responsibility	P.5	C
44	(a) Both a burn and a scald are caused by heat. (b) Body contact with hot steam/ tea/ soup/ porridge/water/ milk. (c) Use of heat insulators to handle hot objects/ cooking from raised places/ do not allow young children to cook/ avoiding children to play around fire places.	Identifies causes of scalds, effects and ways of preventing them.	Accidents and first aid	Critical thinking	Concern	P.4	K
45	(i) Ovulation - is when a mature ovum is released from the ovary. (ii) Menstruation - is a periodic release of blood from the uterus. (iii) Implantation - is the process by which the zygote gets attached on the walls of the uterus. (iv) Fertilisation - is the union of a male and a female gamete to form a zygote.	Defines different processes that take place in humans during reproduction.	Reproduction system	Critical thinking	Taking a right decision	P.6	A
46	(a) cotton wool. (b) Spirit kills germs on a fresh wound. (c) To prevent vectors from spreading germs on a wound/ to stop bleeding.	Identifies different components of the first aid kit and their uses.	Accidents and first aid.	Critical observation	Logic	P.6	C

	(d) Checking/ feeling the heart beats.						
47	(a) Mulching. (b) Mulches rot to form humus/ mulches control soil erosion/ mulches maintain soil moisture. (c) Mulches hide pests/ dry mulches may catch fire and burn the crops.	Describes mulching.	Growing crops	Problem solving	Care	P.4	K
48	(a) Red water/ heart water/ East coast fever/ anaplasmosis. (b) The ears of the animal warm and alert/ the animal feeds properly/walks steadily/ urine and dung passes out smoothly/ the eyes are clean and bright.	Mentions tick borne diseases.	Keeping cattle	Critical thinking	Concern	P.6	C
49	(a) Root tuber. (b) Carbohydrates (c) By sun drying. (d) Cassava mosaic/ leaf spot/ bacterial blight/ brown streak disease.	Identifies different common crops grown.	Crop growing	Critical observation	Appreciation	P.4	K
50	(a) Bacteria/ fungi. (b) Bacteria (c) It helps in soil formation/ it helps in formation of humus.	Identifies different components of soil and their uses.	Soil	Critical thinking	Logic		K
51	(a) Through breast feeding/ after recovering from sickness/ from mother to the unborn baby through the placenta. (b) Enables the body to resist against diseases/ keeps the body healthy and productive/ reduces death rates. (c) AIDS/ HIV. (d) Through breast feeding/ immunisation	Defines immunity	Immunisation	Effective communication	Appreciation	P.6	C
52	(a) Sweeping rubbish in the compound. (b) Picking rubbish/ draining stagnant water/ slashing tall grass in the compound/ constructing latrines/toilets. (c) Housefly	Discusses ways of promoting sanitation.	Sanitation	Problem solving	Care	P.4	C
53	(a) Coccii/ Bacilli/ spiral shaped bacteria. (b) soil/ air/ water/ decaying matter/ rubbish pit. (c) By boiling/ by treating water with chlorine/ by distillation.	States ways of making substances free from germs.	Bacteria and fungi.	Critical observation	Logic	P.4	C
54	(a) Both moulting and ripening of fruits are biological changes. (b) Chemical change. (c) Bathing regularly/ shaving public hair/ arm pit hair/ cutting long finger nails short.	Describes biological and chemical changes.	Types of changes	Environmental awareness	Logic	P.6	C
55	(a) Drought/ lack of enough land/ crop pests and disease/ poor methods of farming/ poor growth. (b) It causes deficiency diseases/ poor health/ starvation/ stunted growth/poor growth. (c) crop growing/ using good methods of farming.	Identifies the causes of food insecurity and how it affects health.	Food and nutrition	Critical thinking	Logic	P.6	C