



THE SHINE STAR EXAMINATIONS BOARD

PRE MOCK MARKING GUIDE

2025

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Random No.					Personal No.		

Candidate's Name:

Candidate's Signature:

District ID No.

Read the following instructions carefully;

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has two sections: **A** and **B**.
Section **A** has **40** questions and section **B** has **15** questions.
3. Answer **all** the questions. **All** the answers to both sections **A** and **B** must be written in the spaces provided.
4. **All** the answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be marked.
5. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
6. Do not fill anything in the table indicated **"FOR EXAMINERS' USE ONLY"** and boxes inside the question paper.

FOR EXAMINERS USE ONLY		
QN NO	MARKS	EXR'S NO.
1-10		
11-20		
21-30		
31-40		
41-43		
44-46		
47-49		
50-52		
53-55		
TOTAL		

Contact us: 0781306601. Turn over

SECTION A : 40 MARKS

Questions 1 – 40 carry **one** mark each

1. Name one bone that forms the joint which allows free plane movement
 - ✓ **Humerus**
 - ✓ **Scapula**
 - ✓ **Femur**
 - ✓ **pelvis**

2. Name any one method that can be used to separate miscible liquids.
 - ✓ **Fractional distillation.(They have different boiling points)****NB: Miscible liquids form one layer after mixing.**

3. Which class of food should be given to people who carryout quarrying?
 - ✓ **Carbohydrates**

4. How is the pancreas useful during the process of chemical digestion of fats in the human body?
 - ✓ **Produces pancreatic juice with lipase to break fats.**

5. State any factor considered when selecting the type of goat to rear on your farm.
 - ✓ **Purpose of the goat**
 - ✓ **productivity rate**
 - ✓ **growth rate**

6. Give any one form of energy that flows from the hot region to a cool region due to temperature difference.
 - ✓ **Heat energy**

7. Suggest any one factor you would prevent as a P.7 candidate to promote the quality of the environment.
 - ✓ **Poor disposal of wastes**
 - ✓ **Deforestation**
 - ✓ **poor methods of farming**
 - ✓ **bush burning**
 - ✓ **overgrazing**

8. Which part of an insect plays like that of the lateral line of fish in terms of their function?
 - ✓ **Feeler. Reject feelers (the question is in singular 'part')**

9. How would you identify regular reflection from irregular reflection during experiments about light?

- ✓ **Regular reflection occurs on smooth shiny surface while irregular occurs on rough shiny surface**
- ✓ **Regular forms parallel reflected rays while irregular forms scattered reflected rays.**

10. Name the deficiency disease that affects the proper working of the human teeth.

- ✓ **scurvy**

11. Besides scholastic materials, give any other solid matter in your classroom.

- ✓ **Chalkboard//chairs//furniture//electric appliances eg TVs**

12. To which group of invertebrates do ticks belong?

- ✓ **Arthropods**

13. Why do some plants shed their leaves during the condition of too much sunshine in the environment?

- ✓ **To reduce water loss/transpiration rate.**

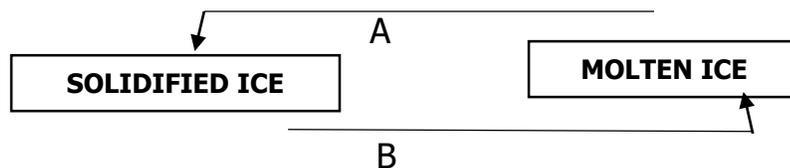
14. State what will be observed at the earth during solar eclipse where the moon comes in between the sun and the earth?

- ✓ **Image of the moon will be cast on the Earth.**

15. State the vaccine administered to defend the body against the immunisable disease that causes stiffness of muscles.

- ✓ **TT vaccine//DPT vaccine**

The illustration below shows effects of heat on states of matter. Study the diagram below and use it to answer the questions that follow.



16. Name the physical process marked A

- ✓ **Freezing**

17. State any one way how the physical process B is different from the process A in terms of formation.

- ✓ **Process B is formed by heat gain while process A is formed by heat loss.**

18. Give the type of incubation which encourages the mother hen to sit on eggs to provide necessities.

- ✓ **Natural incubation.**

19. In which one way does crop rotation help in the control of splash erosion in the garden?

- ✓ **Cover crops protect the topsoil from direct strong rain droplets.**

20. Suggest any reason why you think high temperatures increase the rate of transpiration in the environment.

- ✓ **Increase the evaporation rate of water in plants.**

21. Mention any one way how a P.7 candidate may promote the proper use of his/her handkerchief without washing it.

- ✓ **Sun drying**
- ✓ **repairing if torn**
- ✓ **do not share it**
- ✓ **proper disposal after use**

22. Mention any one material that is removed from blood during blood filtration in the nephrons.

- ✓ **Excess water**
- ✓ **excess salts**
- ✓ **urea**
- ✓ **uric acid**

23. State the feature of clay soil that makes it able to hold water for a long time.

- ✓ **Compact particles**
- ✓ **smallest spaces between particles**

24. Suggest the way how a game ranger identifies wading birds during their services to tourists in forests.

- ✓ **Long thin legs**
- ✓ **partially webbed feet**

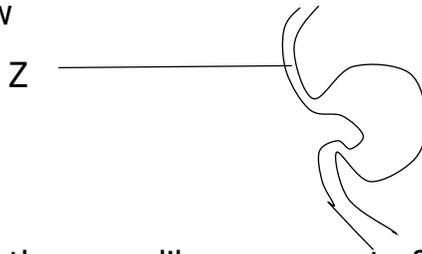
25. Write any information collected about housing in the society during health surveys.

- ✓ **Type of houses commonly used**
- ✓ **Ventilation//number of people in one house**

26. Name the state of matter that conducts heat slowest by conduction method.

- ✓ **Gases//Gas state**

The diagram below shows one part of the alimentary canal. use it to answer the questions that follow



27. What do we call the wave like movement of food along the above alimentary canal?

- ✓ **Peristalsis**

28. Give one major reason you give as to why food is first rolled into a bolus before reaching part Z.

- ✓ **To ease swallowing**

29. State the way how the coiling of the delivery tube in cold flowing water eases distillation process of making alcohol.

- ✓ **Allows condensation of steam**

30. Besides presence of the clitoris in girls, give any other primary sex characteristic used to distinguish girls from boys.

- ✓ **Presence of vagina/ovaries/uterus/vulva/cervix**

NB:

- **Primary sex xtics are features used to distinguish between a baby girl from the baby boy.**
- **They are seen immediately after birth.**

31. Mention any one way how the use of an electric flat iron conserves plant life in the environment.

- ✓ **Uses electricity reducing the cutting of trees for charcoal**
- ✓ **discourages deforestation for wood fuel (charcoal)**

32. Explain how a highly populated area encourages the spread of trachoma in case of its outbreak in the community? (2mrks)

- ✓ **There is poor sanitation in highly populated areas which attracts houseflies that spread bacteria which cause trachoma.**

33. Anita lowered a stone and a feather in water using a rope at the same time, state the reason why the stone sank and the feather floated?

- ✓ **A stone is denser than water while the feather is less dense than water**

34. Apart from the factor mentioned in no.(34)above, mention any other factor that affects objects partially immersed in water.

- ✓ **Up thrust /buoyancy.**

35. Which condition may develop to a person who has eaten food contaminated by moulds?

- ✓ **Food poisoning (an illness one gets after eating contaminated food. eg cholera//typhoid etc)**

36. What do you understand by the term dentition as used in dental analysis?

- ✓ **Arrangement of teeth in the mouth.**

37. Give the major reason why water is regarded as a universal solvent.

- ✓ **Dissolves all solutes.**

The diagram below is about the process of photosynthesis. use it to answer the questions that follow

Raw materials	Conditions	Products
Carbon dioxide Water	Sunlight Chlorophyll	Starch Oxygen

38. How important is the above process to animals in the environment?

- ✓ **Source of food(starch) to animals**
- ✓ **Source of oxygen for respiration.**

39. Name the pole of the freely suspended bar magnet that is attracted by the true North pole of the Earth.

✓ **South Pole.**

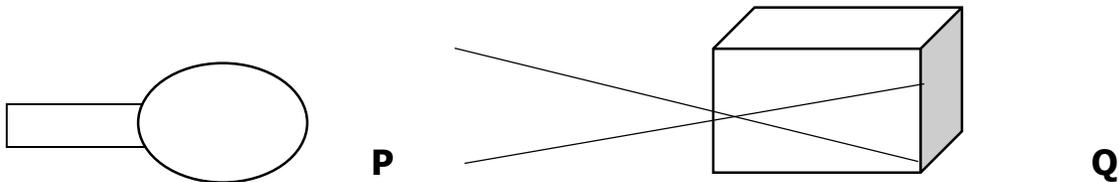
40. Mention any one precaution of human eyes to keep them strong and in proper working conditions.

- ✓ **Sharing face towels**
- ✓ **wearing glasses that don't match the defects**
- ✓ **Touching eyes with dirty hands**
- ✓ **Reading under dim light**
- ✓ **Piercing eyes.**

SECTION B: 60 MARKS

Questions 41 – 55 carry four marks each.

41. The diagrams below show optical instruments. Use them to answer the questions that follow



a. Name the optical instruments marked P & Q

(i) P **Hand/magnifying lens**

(ii) Q **Pinhole camera**

b. Give any one quality of images formed by optical instrument Q.

- ✓ **should be inverted**
- ✓ **should be diminished**
- ✓ **should be real. Reject : without 'should' because of quality**

c. Mention one way how light reflection is important to some groups of people.

- ✓ **Helps people to use periscope**
- ✓ **Helps to use optical instruments that work under light reflection**
- ✓ **helps drivers to see traffic behind them**
- ✓ **helps to identify colours.**

42.(a) mention the two factors that should be followed when starting up a school woodlot.

- ✓ **APPLY LCM: Labour //Capital//Management**
- ✓ **Type of trees to plant**
- ✓ **Nature of soil**
- ✓ **Distance from the school**
- ✓ **Security**

(b). State any one use of the woodlot to the following people at school

(i) Chef: **source of wood fuel//source of food like fruits//source of shade**

(ii) Pupils: **source of food//shade//study purpose**

43(a). What do you understand by the term weathering of rocks as used in soil formation?

- ✓ **Breaking of hard rocks into small pieces/fragments.**

(b). give any 2 factors that increase the rate of weathering of rocks in the environment.

- ✓ **High temperatures.**
Reject: Temperature only. since the target is on how to increase weathering rate.
- ✓ **animal movements**
- ✓ **action of plantroots**
- ✓ **chemical reactions**
- ✓ **strong wind**
- ✓ **quarrying**

(c). How is the overuse of agrochemicals affect the quality of soil formed in the environment?

- ✓ **Leads to land pollution**
- ✓ **Sackets used to pack agrochemicals limit soil aeration and drainage(most of them are non biodegradable)**

44(a).Name the cattle disease that is detected by the help of an instrument with black surface to trap abnormal changes in milk.

- ✓ **Mastitis**
Note: strip cup has a black surface to easily detect any change in milk.

(b).How do farmers benefit from the lactometer as one of the major components of farm tools?

- ✓ **Helps to detect the presence of fats and water in milk.**

(c).Mention any two ways cattle farmers make proper use of the tsetse fly traps to maintain their working conditions on the farm.

- ✓ **Repairing them**
- ✓ **cleaning them**
- ✓ **putting them in the direction of tsetse flies**

45(a). State two dangers of having shelter under tall trees when it is drizzling.

- ✓ **Leads to lightning strikes**
- ✓ **Felling/falling of trees may cause accidents**

(b). Which advice would you give to the school going children who walk without rubber shoes during drizzling?

- ✓ **To wear rubber shoes when walking in rain.**

46. The table below shows steps of laundry. Use it to answer the questions that follow

Soaking	Removes excess water
Rinsing	Promotes drying
Ironing	Removes soapy water from clothes
Wringing	Softens dirt in clothes

- (i).soaking **softens dirt in clothes**
- (ii).rinsing **removes soapy water in clothes**
- (iii).ironing **promotes drying**
- (iv).wringing **removes excess water**

47. (a)Name the two sources of natural fibers in the environment

- ✓ **Animals. (wool/fleece//mohair//fur//silk)**

- ✓ **Plants. (raffia//cotton)**

(b).What name is given to the act of removing the overgrown fleece from animals mainly sheep?

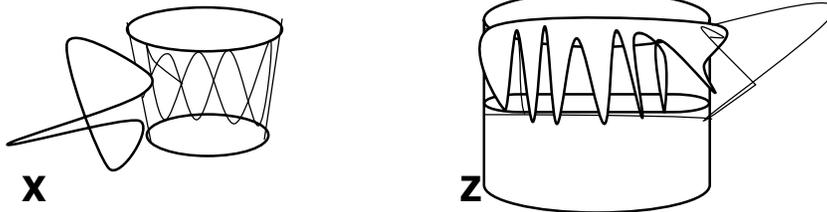
- ✓ **Shearing**

NB: fleece means wool

(c). State any one way how the keeping of angora goats help in the development of textile industry.

- ✓ **Produce mohair used as a raw material in textile industry.**

48. The diagram below shows an musical instrument.use it to answer the questions that follow it



(a). Name the musical instrument drawn above

- ✓ **Accept: Drum.**
- ✓ **Reject: Drums** since the question asked for instrument not instruments.

(b). State the end between X and Z that produces the higher pitched sound.

- ✓ **End X. Reason: (has smaller vibrating surface than End Z)**

(c). How is the pitch of the above musical instruments varied?

- ✓ **Tighten the skin surface/vibrating rods**

(d). Mention one way how the above musical instrument is important to social life in the community.

- ✓ **Massive communication**
- ✓ **Entertainment**
- ✓ **used in spiritual and cultural practices**

49(a). What do you understand by the term technology as used in project work of man?

- ✓ **Use of scientific knowledge and skills to produce a practical work**

(b). Give any two sources of raw materials used in basic technology used by children during a PE lesson.

- ✓ **Plants**
- ✓ **Water**
- ✓ **Soil**
- ✓ **Animals**

(c). State one use of basic technology to school children.

- ✓ **Improves their practical skills**
- ✓ **improves their level of thinking**
- ✓ **source of play materials**
- ✓ **improves their motor skills**

50. You are provided with pineapple fruits, sieve, water in the cup and some sugar.

Explain how you would produce simple alcohol by fermentation process in the classroom?

- ✓ **Make juice from pineapple fruits**
- ✓ **Add sugar and water to the juice and filter**
- ✓ **Keep the filtrate for 2 /3 days**
- ✓ **Carbon dioxide bubbles formed and the sugary taste indicate the presence of alcohol.**

51. Pollination is the transfer of pollen from the anther to the stigma.

(a).What name is given to things that help in the transfer of pollen from the anther to the stigma?

- ✓ **Pollinators**

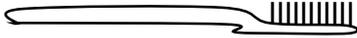
(b).Give any two nonliving factors that help in the transfer of pollen from the anther to the stigma.

- ✓ **Wind**
- ✓ **Water**

(c). State what happens to the stigma when pollen lands on it during the process of pollination

- ✓ **It forms a pollen tube.**

52(a). In the space below, draw and the item used to promote oral hygiene by removing the food stuck on teeth.



Toothbrush

Note:

- **1 mrk for the drawing.**
- **1 mrk for naming.**

(b). Give any 2 ways how children may promote proper use of the above drawn item to keep it in good working conditions.

- ✓ **cleaning it after use**
- ✓ **rinsing it after use**
- ✓ **drying it**
- ✓ **do not share it with friends**

53(a).State one reason why you would group a ballpoint pen under the solid state of matter

- ✓ **has closely packed molecules**
- ✓ **strong cohesion forces**
- ✓ **has fixed volume.**

(b).Name the state of matter that transfers heat energy slower by convection.

- ✓ **Faster: Gases (have widely spaced particles)**
- ✓ **Slower: Liquids (have moderate spaced particles)**

(c).Give the reason why solids conduct heat energy fastest by conduction.

- ✓ **Have closely packed particles.**

(d).Mention one activity done by the help of radiation in our daily life.

- ✓ **Sun drying harvested cereals//warming the body//drying wet clothes and beddings.**

54(a).Give the meaning of the term thermometric liquids as used to measure temperature.

✓ **Liquids used in the thermometers.**

(b).Name the thermometer that uses two thermometric liquids to measure temperature at once.

✓ **Six's thermometer**

(c). Outline the two thermometric liquids commonly used in thermometers.

✓ **Mercury //Alcohol**

55. Anita as P.4 pupil was carrying out an experiment showing aquatic life. Her experiment set like:

Container B had: some fish, water and open on top.

Container Q had: some fish, water but with a layer of oil on top.

(a). Which container allows the survival of fish for a long time?

✓ **Container B.**

(b).State the reason for your answer in (a) above

✓ **It has the entry of oxygen to the fish.**

(c).Name any one activity that should be done to minimize the problem affecting fish in container Q.

✓ **Reducing the use of agrochemicals//protecting water bodies//proper disposal of wastes**

(d).Mention any other animal that maybe used by Anita instead of using fish in her experiment.

✓ **Fresh snails**

✓ **Shrimps**

END