

# SCIENCE PLE 2016 EXTRACT

## PUPIL'S COMPLETE INDEX NUMBER

Province/city

District

Sector

School

Pupil

## PUPIL'S FULL NAME

Sur name

:

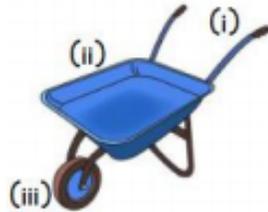
\_\_\_\_\_

### SECTION A: Answer all questions. (50 marks)

1. a. What is a simple machine?

\_\_\_\_\_

- b. Name the parts of a simple machine below.



- i) \_\_\_\_\_  
ii) \_\_\_\_\_  
iii) \_\_\_\_\_

- c. In which class of machines is the simple machine in (b) above?

\_\_\_\_\_

2. Name two ways of controlling dangers caused by stagnant water.

\_\_\_\_\_

3. Write two sources of artificial light.

\_\_\_\_\_

4. Why do we wear opaque clothes?

\_\_\_\_\_

5. Which form of energy is commonly used to:

a. Make cars move? \_\_\_\_\_

b. Enable human beings to see? \_\_\_\_\_

6. State any two properties of metals.

\_\_\_\_\_

7. State any two possible dangers of wind.

\_\_\_\_\_

8. State any two properties of a liquid.

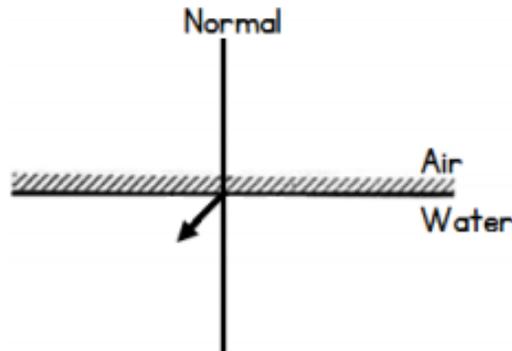
\_\_\_\_\_

9. Calculate the mass of a body with density  $0.9\text{g/cm}^3$  and volume  $20\text{cm}^3$ .

10. Why does a stone sink into water?

\_\_\_\_\_

11. Complete the diagram below and label the incident ray, angle of incidence and angle of refraction.



12. What is the difference between conduction of heat and radiation of heat?

\_\_\_\_\_

13. Draw a simple electric circuit composed of two cells in series, a lamp and a switch.

14. What is the use of each of the following in an electric circuit?

a. A dry cell \_\_\_\_\_

b. A bulb \_\_\_\_\_

15. How is electricity useful in helping radio and TV communication?

\_\_\_\_\_

16. What is an echo?

\_\_\_\_\_

17. Why is music a pleasant sound to hear and noise an unpleasant sound to hear?

\_\_\_\_\_

18. Why is pond water not good for drinking?

\_\_\_\_\_

19. How do you change water vapour to liquid water?

\_\_\_\_\_

20. What is a penumbra shadow?

\_\_\_\_\_

21. Which form of energy helps us to hear?

\_\_\_\_\_

22. Name any two substances which are attracted by a magnet.

\_\_\_\_\_

23. If you have a mixture of iron filings and sand, how can you separate them?

\_\_\_\_\_

**SECTION B: ANSWER ALL QUESTIONS (50 MARKS)**

24. a. What is meant by communicable diseases?  
\_\_\_\_\_
- b. Give any two examples of communicable diseases.  
\_\_\_\_\_
25. a. What is meant by sexually transmitted infections (STIs)?  
\_\_\_\_\_
- c. Name any two ways of preventing the spread of STIs.  
\_\_\_\_\_
26. a. What is a balanced diet?  
\_\_\_\_\_
- b. Name any two sources of vitamins.  
\_\_\_\_\_
- c. What is a deficiency disease?  
\_\_\_\_\_
- d. A child that lacks calcium and phosphorus is likely to suffer from  
\_\_\_\_\_
27. Digestion of food starts in the (a) \_\_\_\_\_ and ends in the  
(b) \_\_\_\_\_.
28. Name the digestive juices found in the:  
a. Mouth \_\_\_\_\_  
b. Stomach \_\_\_\_\_  
c. Small intestines \_\_\_\_\_
29. Give the names of two organs that are not part of the alimentary canal but are very important in producing digestive juices.  
\_\_\_\_\_  
\_\_\_\_\_
30. a. In human beings, what are the names of:  
i. Male sex cells \_\_\_\_\_  
ii. Female sex cells \_\_\_\_\_
- b. The process by which an ovary releases an ovum after every 28 days is known as  
\_\_\_\_\_
31. a. State the four main components of blood.  
\_\_\_\_\_  
\_\_\_\_\_
- b. \_\_\_\_\_ is a component of blood responsible for blood clotting.
32. a. Which excretory product is removed by all the body excretory organs?  
\_\_\_\_\_
- b. List down any four functions of the skin.  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

33. a. Animals move in order to:

\_\_\_\_\_

\_\_\_\_\_

b. Give one example of animals that;

- i. walk \_\_\_\_\_
- ii. crawl \_\_\_\_\_

34. a. The process by which plants lose water into the atmosphere is known as

\_\_\_\_\_

b. State four conditions necessary for the process of photosynthesis.

\_\_\_\_\_

\_\_\_\_\_

35. a. Harmful substances that pollute water are known as

\_\_\_\_\_

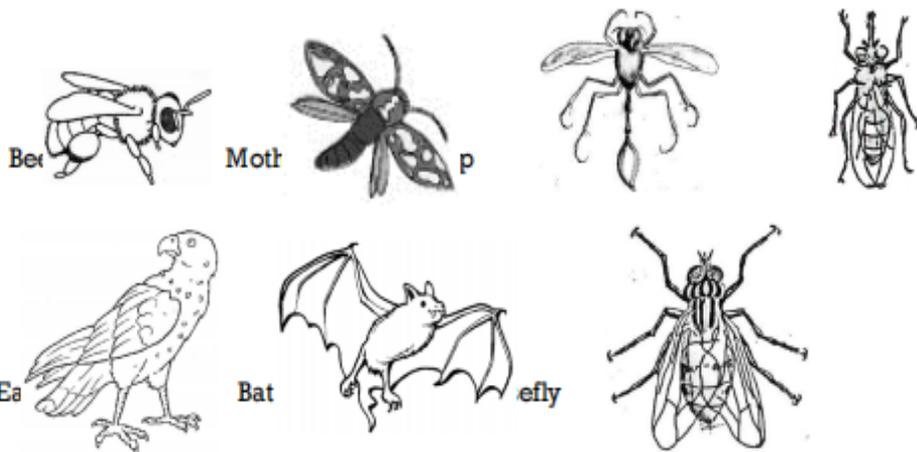
b. State four things that can pollute water.

\_\_\_\_\_

\_\_\_\_\_

36. After fertilisation has taken place in plants, the ovules grow to become \_\_\_\_\_, while the ovary becomes \_\_\_\_\_

37. Classify the organisms below into three groups.



- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

# **SUGGESTED ANSWERS FOR PLE 2016**

|    |   |    |  |
|----|---|----|--|
| 1  | a. It is any device used to simplify work.<br>b. (i) Effort (ii). Load (iii). Fulcrum/pivot<br>c. Second class lever        | 20 | It is the lightest part of the shadow in an eclipse.   |
| 2  | Draining water<br>Sleeping under treated mosquito nets  | 21 | Sound energy   |
| 3  | Fire, torch, electricity, candle  | 22 | Iron, steel, cobalt  |
| 4  | To keep our body private<br>To keep our body warm   | 23 | By using a magnet.   |
| 5  | a. Kinetic energy, Electric energy<br>b. Light energy   | 24 | a. These are diseases which spread from one infected person to another.<br>b. Ebola, trachoma, measles, cholera  |
| 6  | They expand when heated<br>They are hard and strong   | 25 | a. These are diseases that spread through sexual intercourse.<br>b. Abstain from sex, avoid sharing sharp piercing instruments   |
| 7  | Wind spreads diseases<br>Too much wind destroys property<br>Too much wind leads to soil erosion                             | 26 | a. It is a meal that contains all food values in their correct quantities.<br>b. Fruits, green vegetables<br>c. It is a disease caused by lack of enough specific class of food in the body.<br>d. Rickets |
| 8  | Liquids flow<br>Liquids have averagely arranged particles.  | 27 | a. Mouth<br>b. Small intestines (ileum)  |
| 9  | $M = D \times V = \frac{9}{10} \times 20 = 18g$   | 28 | a. Saliva juice<br>b. Gastric juice<br>c. Succus entericus   |
| 10 | A stone sinks in water because its density is greater than that of water.<br>A stone sinks because it is denser than water. | 29 | Liver and pancreas   |
| 11 | Teacher's guidance  | 30 | a. Male - sperms, Female - Ova (eggs)<br>b. Ovulation  |
| 12 | Conduction of heat, heat transmits through a solid conductor while radiation of heat, heat transmits through vacuum.        | 31 | a. White blood cells / Red blood cells / Plasma / Platelets<br>b. Platelets  |
| 13 | Teacher's guidance  | 32 | a. Excess water, carbondioxide<br>b. It regulates body temperature / It stores fats / It protects the inner parts of the body / It is used for feeling / For excretion                                     |
| 14 | a. Source of energy<br>b. To give light   | 33 | a. Escape from danger / Look for food and water / To look for shelter<br>b. walk-man / crawl-snakes, lizards, crocodiles   |
| 15 | It helps them to operate/work   | 34 | a. Transpiration<br>b. Sunlight / water / chlorophyll / carbondioxide  |
| 16 | An echo is a reflected sound.   | 35 | a. Water pollutants<br>b. Sewage / dead animals / soil / chemicals   |
| 17 | Music is an organised sound while noise is disorganised sound.  | 36 | Ovules - seeds / Ovary - a fruit   |
| 18 | Pond water contains some microbes that cause diseases.  | 37 | Insects / mammals and birds  |
| 19 | By cooling down the water vapour below 0°C i.e condensation   |    |  |