

FOR EXAMINERS' USE ONLY	
QUESTION	MARK
1	
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TOTAL	

SCHOOL No.	CANDIDATE No.
INITIALS	SURNAME

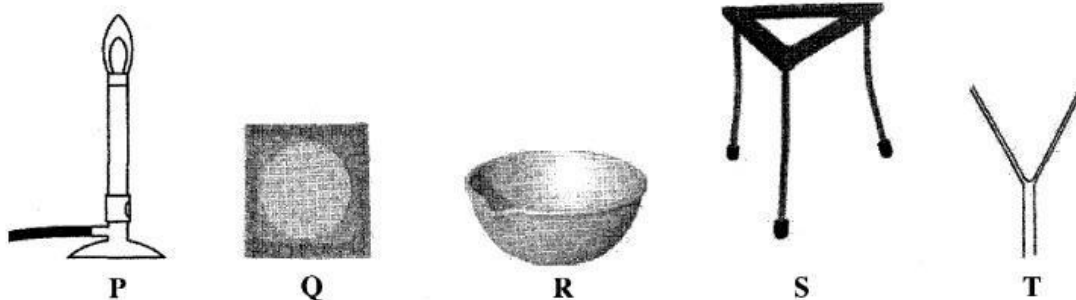
**0047 GENERAL SCIENCE****PAPER 2 STRUCTURED QUESTIONS  
(60 MARKS)**Thursday **31 MAY 2012** 2:15–3:15 P.M.**MINISTRY OF EDUCATION  
BAHAMAS JUNIOR CERTIFICATE  
EXAMINATION 2012*****INSTRUCTIONS TO CANDIDATES***

Do not open this booklet until you are told to do so.

Write your school number, candidate number, surname and initials in the spaces provided at the top right hand side of this page.

Answer **ALL** questions in the spaces provided.This question paper consists of **11** printed pages.

1. The diagram shows some common pieces of apparatus found in a science laboratory.



- (a) (i) Identify the apparatus labelled P, S and T.

P \_\_\_\_\_

S \_\_\_\_\_

T \_\_\_\_\_ [3]

- (ii) Select **FOUR** pieces of apparatus that could be used to obtain salt from seawater.

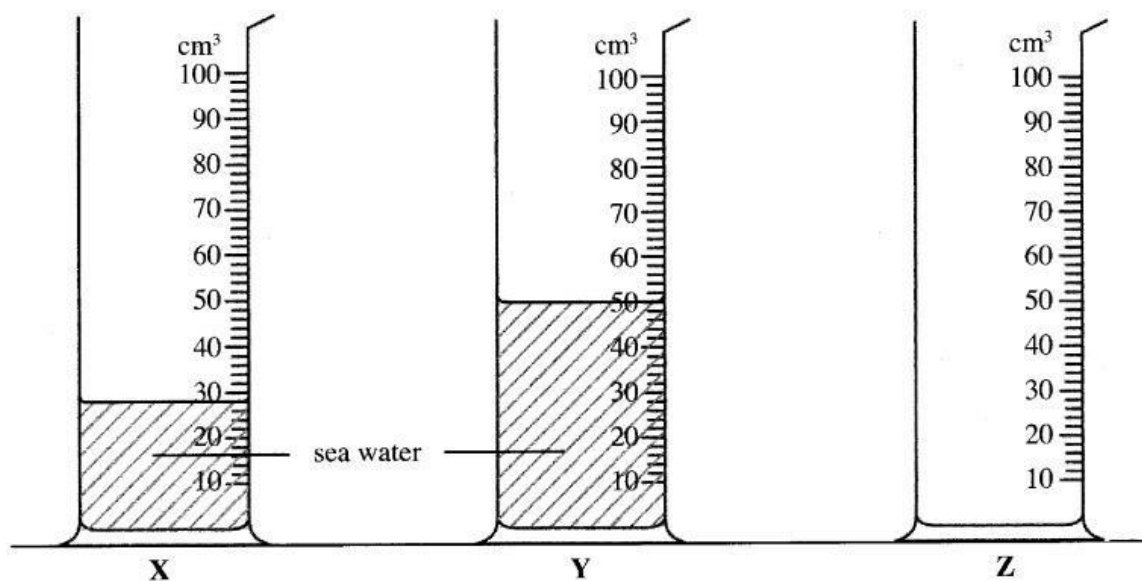
1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_ [4]

- (b) (i) The contents of both cylinder **X** and cylinder **Y** were poured into cylinder **Z**. Draw the new level of the solution in cylinder **Z**. [1]



- (ii) Write the formula for the **solute** and **solvent** in the cylinders.

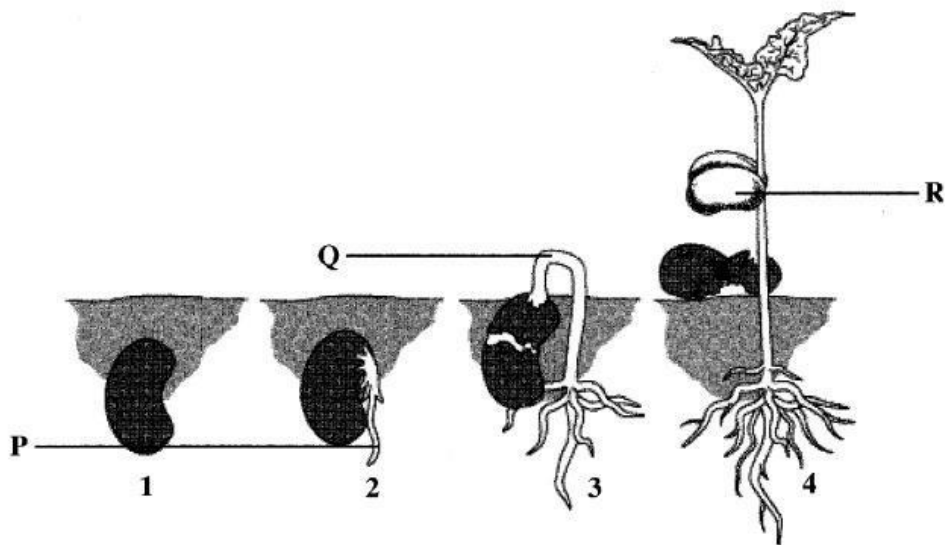
formulae

**solute** \_\_\_\_\_

**solvent** \_\_\_\_\_ [2]

**Total marks [10]**

2. The diagram shows the stages in the germination of a bean seed.



- (a) (i) Identify the parts labelled **P**, **Q** and **R**.

**P** \_\_\_\_\_

**Q** \_\_\_\_\_

**R** \_\_\_\_\_ [3]

- (ii) Name the structure stage **4**.

\_\_\_\_\_ [1]

- (iii) Name the part which protects the seed in stage **1** and is shed by the structure in stage **4**.

\_\_\_\_\_ [1]

- (b) (i) Identify the group of plants to which the bean belongs.

\_\_\_\_\_ [1]

- (ii) Give a reason for your answer.

\_\_\_\_\_ [1]

- (c) State **TWO** conditions necessary for germination.

1 \_\_\_\_\_

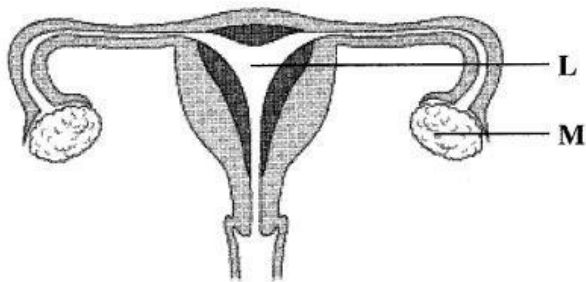
2 \_\_\_\_\_ [2]

- (d) Name the structure of the seedling where photosynthesis takes place.

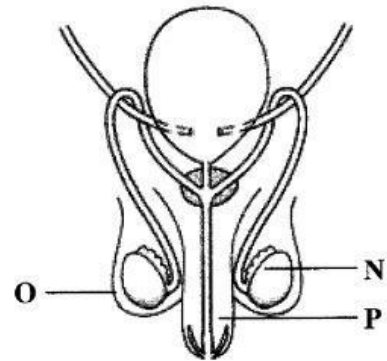
\_\_\_\_\_ [1]

**Total marks [10]**

3. The diagrams show two human body systems.



**diagram 1**



**diagram 2**

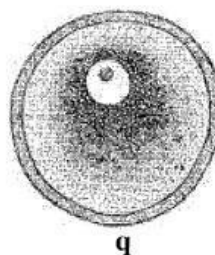
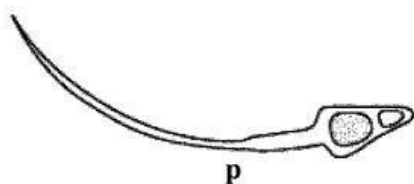
- (a) (i) Name the systems shown in the diagrams.

\_\_\_\_\_ [1]

- (ii) Name and give the specific function of the structures labelled **M** and **N**.

name	function
<b>M</b> _____	_____
<b>N</b> _____	_____ [3]

The diagram shows two different types of human cells.



(b) Complete the table by filling in the blank spaces with

- (i) the names of the cells **p** and **q**; [2]
- (ii) the letter of the organ where each is produced; [2]
- (iii) the number of the diagram which shows the system where the organ is found. [1]

cell	name of cell	letter of organ	diagram number
<b>p</b>			
<b>q</b>			

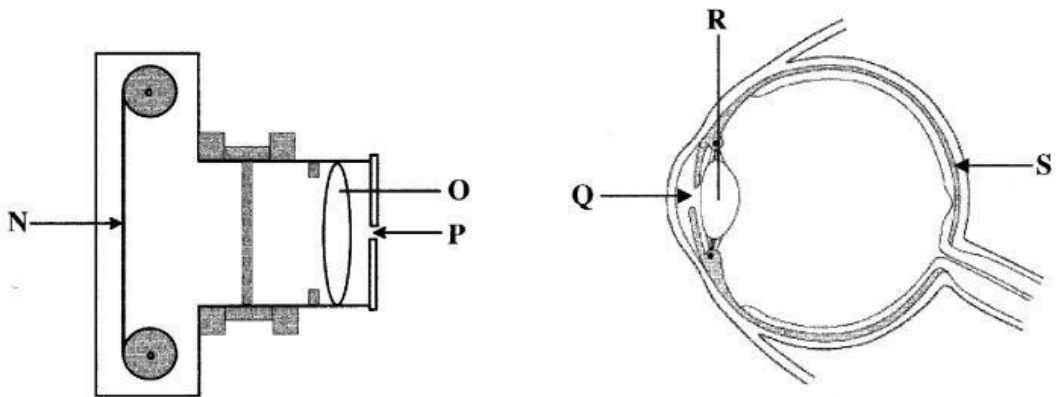
(c) Name the process which results from the union of cell **p** and cell **q**.

[1]

**Total marks [10]**



4. The diagram shows the main parts of the camera and the human eye.



- (a) (i) Identify the parts on the diagram labelled **N**, **Q** and **S**.

**N** \_\_\_\_\_

**Q** \_\_\_\_\_

**S** \_\_\_\_\_ [3]

- (ii) Complete the table by identifying and writing the names of the structures in the eye and the camera with their function. [5]

function	eye	camera
allows light to enter		<b>P</b> – aperture
where the image forms		
focuses the image		

- (b) (i) State **ONE** change to light rays as they pass through the lens of the eye or the lens of a simple camera.

\_\_\_\_\_ [1]

- (ii) All living things respond to stimuli in the environment. State the stimulus to which the eye responds.

\_\_\_\_\_ [1]

**Total marks [10]**



5. The diagram shows various ways a form of energy can be transmitted.



- (a) (i) Name the form of energy being transmitted. \_\_\_\_\_ [1]
- (ii) Identify the process which transmits energy at X, Y and Z.
- X from the Sun to the girl; \_\_\_\_\_
- Y from the flame to the hand; \_\_\_\_\_
- Z from the hot plate to the pan. \_\_\_\_\_ [3]

- (b) (i) Name the state of matter at **Y** and **Z**.

**Y** \_\_\_\_\_

**Z** \_\_\_\_\_ [2]

- (ii) Suggest which state of matter transmits this energy faster. Give a reason for your answer.

**state** \_\_\_\_\_

**reason** \_\_\_\_\_

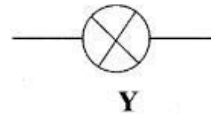
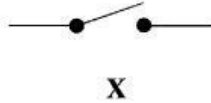
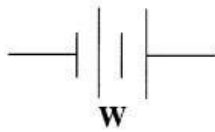
\_\_\_\_\_ [3]

- (c) Name the instrument used to measure this form of energy.

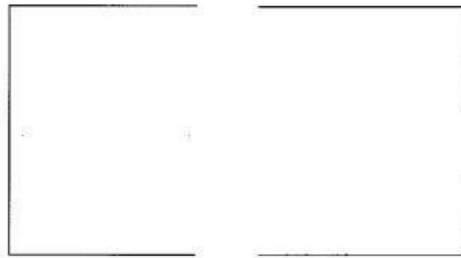
\_\_\_\_\_ [1]

**Total marks [10]**

6. The symbols represent **THREE** components of an electric circuit.



- (a) (i) Identify the component using the letters **W**, **X** and **Y** which
- starts/stops power in circuit; \_\_\_\_\_
- uses power; \_\_\_\_\_
- supplies power. \_\_\_\_\_ [3]
- (ii) Name the components labelled **W** and **X**.
- W** \_\_\_\_\_
- X** \_\_\_\_\_ [2]
- (b) (i) Use the **THREE** electrical symbols in the diagram to complete the circuit. [3]



- (ii) Suggest what happens to the light if more batteries are added to this circuit.
- \_\_\_\_\_ [1]
- (iii) Name the type of circuit shown.
- \_\_\_\_\_ [1]

**Total marks [10]**