



The first question

- 1- How does heat change a liquid into a gas?
- 2- What is the effect of applying heat to a substance?
- 3- What is the difference between cast iron and wrought iron?
- 4- What are the four ingredients needed in the extraction of iron?
- 5- What developments led to the production of Aluminum at a low cost?
- 6- What is the difference between luminous bodies and non-luminous bodies?
- 7- Define Melting – Alloy – Evaporation – Composite – Melting point.
- 8- What improvements in engineering become possible with Bessemer's converter?

The second question

A. Choose the correct answer;

- 1- She (goes - go - went) to Alex last summer.
- 2- I usually (wake up - woke up - wakes up) early.
- 3- (Either - Neither - Both) fixed and variable resistors are made.
- 4- This e-mail (sends - sent - was sent) by my best friend.
- 5- Your stomach pain is the (effect – affect – effective) of over eating
- 6-(Although - But - And) Ahmed likes bananas; I don't like them at all.
- 7- I'm not going anywhere today (because - because of - so that) the rain.
- 8-(Unless - Because - Although) all metals are conductors, some metals do not conduct.
- 9- The instructor (will answer - answer - answers) the questions tomorrow.
- 10- In old days people (travel – traveled – travels) on horse backs.
- 11- English (is speaking - speaks - is spoken) all over the world.
- 12-He looked (up - into - about - after) the new words in his dictionary.
- 13- The focus control is (for – to – on) focusing the electron lens.
- 14- Rachel always (Stays - is staying - staying) at the Park Hotel when she's in London
- 15- If we had taken your advice, we (saved - would save - will save –would have saved) a lot of time.

The third question

Read the following passage then answer the questions:

Using sunlight as a source of energy offers considerable advantages. Light from the sun is practically inexhaustible and is available everywhere. Changing sunlight directly into electrical energy involves the use of photovoltaic cells or solar cells and these use no fuel. A solar cell comprises two layers of the element Silicon. Each layer is chemically treated to produce what is known as a p-type layer and n-type layer. When they join is a region called a p-n junction. When sunlight strikes the p-n junction a voltage is generated. However the voltage produced by one solar cell is very small and for this reason many solar cells are connected together to form an array called solar panel. Up until the present lime they have generally been used to charge batteries or operate electrical systems in space vehicles.

A- Answer the following questions :

- 1- What are the advantages of sunlight as a source of light?
- 2- Give another expression for solar cell.

B- Choose the correct answer :

- 1- By joining many solar cells together we can build.....
a- solar panel b- p-n junction c- solar cells
- 2- Solar cells are made of.....
a-solar panel b- solar cells c- Silicon
- 3- The region where a p-type layer and n-type layer join is known as a.....
a- solar panel b- p-n junction c- n-type layer

The forth question

Write a paragraph on only one of the following topics:-

1. Heat and its effects.
2. Modern means of communication.
3. Computers.

Good Luck
Dr. Mai Moustafa Fahmy Khater



The first question

- 1- When its boiling points are reached.
- 2- Produce a rise in temperature, cause chemical actions, changes the state of the substance.
- 3- Cast iron is cheaper than wrought iron. Wrought can be shaped easier than cast iron.
- 4- Iron ore – limestone – coke – hot air
- 5- Cheap electricity became available.
- 6- Luminous bodies give off light but non- luminous bodies absorb light and reflect it to our eyes.
- 7- Melting: change the solid to a liquid. – Alloy: a mixture of two metals or more – Composite: a mixture of two or more chemical materials – Evaporation: the liquid changes into a gas – Melting point: a point at which a solid changes into a liquid .
- 8- He discovered a way by which cast iron could cheaply be turned to mild steel.

II- Grammar and Vocabulary

A. Choose the correct answer;

- | | | | | |
|------------------------|---------------|-------------|----------------------|-----------|
| 1) went | 2) wake up | 3) Both | 4) was sent | 5) effect |
| 6) Although traveled | 7) because of | 8) is being | 9) will answer | 10) |
| 11) is spoken Although | 12) up | 13) for | 14) would have saved | 15) |

III: Reading comprehension

C- Answer the following questions :

- 1- Light from the sun is practically inexhaustible and is available everywhere.
- 2- Photovoltaic cells

D- Choose the correct answer :

- 4- By joining many solar cells together we can build.....
b- solar panel
- 5- Solar cells are made of.....
c- Silicon
- 6- The region where a p-type layer and n-type layer join is known as a.....
b- p-n junction

IV- Writing a paragraph

Writing is assessed by the examiner.