

الموضوع الأول

**Part one: Reading (15points)**

**A/ Comprehension (8pts)**

*Read the text and do the activities below.*

A striking new image captured by the Hubble Space Telescope delivers a deep look into a mysterious cosmic object called the Red Rectangle Nebula.

The Red Rectangle, so named because of its bizarre shape and striking color, is a nebula — a cosmic cloud of gas and particles. In this case, the nebula is formed by the central star, HD 44179, which is reaching the end of its life and shedding most of its mass into space.

The source of the red light emitted by the Red Rectangle baffled scientists for more than 30 years. The same kind of red emission was seen throughout the Milky Way and in other galaxies, but scientists weren't sure what created it. The mystery was finally solved in 2007: The glow comes from strange activity at the molecular level inside clusters of dust.

This new image gives scientists the best understanding yet of the structure of the Red Rectangle, according to a statement from NASA. Instead of a rectangle, it appears that the nebula around the star is shaped like an "X," with ladder-like rungs of glowing gas connecting the four arms.

The star at the center of the Red Rectangle is similar to Earth's sun and is responsible for those evenly spaced lines as it releases gas and other material to create the nebula and its distinctive shape. NASA experts now believe the star is also a close binary (meaning it has a connected partner), and is surrounded by a dense area of dust, according to the statement.

*By Kasandra Brabaw, Space.com Contributor | April 25, 2016 07:00am*

**1- Select the best answer**

A-The type of the text is: a) expository b) descriptive c) narrative

B-The text is about : a) Hubble telescope description.

b) Hubble telescope history.

c) Hubble mysterious discovery.

**2- Are the following statements true or false?**

a- Nebula is a well-known object.

b- Scientists were perplexed by the Red Rectangle for a long time.

c- The star at the center of the Red Rectangle looks like the sun.

**3- Answer the following questions according to the meaning of the text.**

a- What is nebula?

b- What is its recently found shape?

c- Was its secret found at last?

d- How did the star at the center of the Red Rectangle create a nebula?

**4- In which paragraph is it mentioned that the scientists found that the nebula is not rectangular in shape?**

**5- What or who do the underlined words refer to?**

its (2<sup>nd</sup> §) =

it (5<sup>th</sup> §) =

**B/ Text exploration (7pts)**

**1-Find in the text words or phrases closest in meaning to the following:**

strange (2<sup>nd</sup>§) - perplexed(3<sup>rd</sup> §) - secret(3<sup>rd</sup>§)

**2-Find in the text words or phrases opposite in meaning to the following:**

beginning (2<sup>nd</sup> §) - outside(3<sup>rd</sup> §) - different from (5<sup>th</sup>§)

**3-Divide the following words into roots and affixes.**

mysterious - unbelievable- misunderstand

e.g : disconnecting

prefix	root	suffix
dis	connect	ing
.....	.....	.....
.....	.....	.....
.....	.....	.....

**4- Complete the sentence “b” so that it means the same as the sentence “a”:**

- 1- a- The nebula is formed by the central star.  
b- The central star .....
- 2- a- Mars is more distant from the sun than the Earth.  
b- The Earth is .....
- 3- a- A scientist said that Hubble had captured a shrinking new image.  
b- A scientist said, .....

**5- Classify the following words according to the pronunciation of final ‘s’**

releases, delivers , scientists , galaxies

/s/	/z/	/iz/

**6- Complete the following dialogue:**

- A: Did you hear about Hubble telescope?
- B: Yes, but .....
- A: It is used for taking pictures from space and sends them to Earth.
- B: .....
- A: It is cylindrical.
- B: .....
- A: It weighs more than eleven tones.
- B: And .....
- A: It’s 13 meters long.
- B: Oh great , thank you for the information.

**Part two: Written expression. (5pts)**

**Choose one of the following topics:**

**Topic one:** Use the following notes to write an essay about the advantages and disadvantages of space research.

**Advantages :** Helps medical research – discovering outer space.- helps protecting the environment.

**disadvantages:** Waste of money and time -money should be given for the poor – space wars

**Topic two:** Satellites are very necessary in our daily life. Write an essay talking about their various benefits

Scoring scale	Answers															
<p>2x0.5</p> <p>3x0.5</p> <p>1x4</p> <p>0.5</p> <p>0.5x2</p>	<p><b>PART ONE: reading.(15pts)</b></p> <p><b>A) Comprehension : ( 8pts)</b></p> <p>1- <b>Selecting the best Answer:</b>                      A: the type of the text is <i>descriptive (b)</i>                      B: The text is about <i>Hubble mysterious discovery (c)</i></p> <p>2- <b>True/False statements.</b>  <i>a- false b- true c-true</i></p> <p>3-<b>Answers:</b>                      a- A nebula <i>is a cosmic cloud of gas and particles.</i>                      b- Its recently found shape <i>is like an 'X'.</i>                      c- <i>Yes it was.</i>                      d-The star at the center of the Red Rectangle <i>releases gases and other material to create the nebula and its distinctive shape.</i></p> <p>4- <i>in the 4<sup>th</sup> paragraph.</i></p> <p>5- <i>its = The red rectangle</i>  <i>it= The star at the centre of the red rectangle</i></p>															
<p>0.25x3</p> <p>0.25x3</p>	<p><b>B) Text Exploration.(07pts)</b></p> <p>1)<b>synonyms:</b>                      Strange= <i>bizarre</i>                      Perplexed=<i>baffled</i>                      Secret=<i>mystery</i></p> <p>2)<b>opposites:</b>                      beginning = <i>end</i>                      outside = <i>inside</i>                      different from = <i>similar to</i></p> <p>3) <b>Roots and affixes:</b></p>															
<p>0.25 x4 (each affix)</p>	<table border="1" data-bbox="435 1227 970 1417"> <thead> <tr> <th><i>prefix</i></th> <th><i>root</i></th> <th><i>suffix</i></th> </tr> </thead> <tbody> <tr> <td><i>dis</i></td> <td><i>connect</i></td> <td><i>ing</i></td> </tr> <tr> <td><i>-----</i></td> <td><i>mesteri</i></td> <td><i>ous</i></td> </tr> <tr> <td><i>un</i></td> <td><i>believ</i></td> <td><i>able</i></td> </tr> <tr> <td><i>mis</i></td> <td><i>understand</i></td> <td><i>-----</i></td> </tr> </tbody> </table>	<i>prefix</i>	<i>root</i>	<i>suffix</i>	<i>dis</i>	<i>connect</i>	<i>ing</i>	<i>-----</i>	<i>mesteri</i>	<i>ous</i>	<i>un</i>	<i>believ</i>	<i>able</i>	<i>mis</i>	<i>understand</i>	<i>-----</i>
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<p>0.5x3</p>	<p>4) <b>Sentence completion.</b></p> <p>1) b) The central star <i>forms the nebula.</i></p> <p>2) b) The Earth is <i>less distant</i> from the Sun <i>than</i> Mars.</p> <p>3) b) A scientist said , <i>"Hubble captured a shrinking new image."</i></p>															
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<p>0.5x4</p>	<p>6) <b>Dialogue completion.</b></p> <p>B: Yes, but <i>what is it used for?</i></p> <p>B: <i>What is its shape?</i></p> <p>B: <i>How much does it weigh?</i></p> <p>B: And <i>how long is it?</i></p>															
<p>2/3</p> <p>2.5/2.5</p>	<p><b>PART TWO</b></p> <p><b>Topic 1</b> Content / form</p> <p><b>Topic2</b> Content/form</p>															