



Entrance exam 2002-2003

English

Duration: 1 h

I- Read the passage carefully then answer the questions that follow. (Write only the answers).

Today, doctors and scientists are working together to make surgery safer and more efficient.

One of the first boots or advantages to modern surgery was the heart-lung machine. The machine, which is now commonplace in every operating room and intensive care unit, was first invented in 1953. Because of the heart-lung machine, open- heart surgery has advanced more rapidly. Heart surgeons have been able to operate on the heart for longer periods of time. Without the heart-lung machine, the operation could only have lasted approximately ten minutes because irreparable brain damage would occur if the heart and blood circulation were stopped any longer.

Because the heart and lungs are temporarily stopped, the surgeon has a large, motionless, bloodless area to operate on. How does it work? Very simply, the heart-lung machine takes deoxygenated blood from the body, adds oxygen to it, removes the carbon dioxide and pumps the blood back into the body. The circulatory system is complete except for the heart and lungs.

The pumps used in these machines must pump the blood steadily, but gently so as not to damage red blood cells. One of the added advantages of the heart-lung machine is that the blood may be cooled during surgery. This is called hypothermia. The advantage is that the organs of the body are maintained in better condition during the surgery. People you know may be alive today due to the heart-lung machine in the hospital near you.

- A.** Answer the following questions. (1 point each)
- 1- Write two advantages for the heart-lung machine.
 - 2- How might the blood cells get damaged?
 - 3- Why did the writer say that the machine was common place?
- B.** Use a word from the text to complete the following sentences. (Write only the words). (½ pt each).
- 1- The drug I took was very _____ : I was cured quickly.
 - 2- Her illness and suffering _____ several years before she died.
 - 3- Many accidents _____ on this highway because there are not traffic signs.
 - 4- I was so afraid that I became _____ instead of running.
 - 5- It rained _____ for several hours: this made the streets flood.
 - 6- _____ the bad weather, flights will be delayed. (don't use because).



C. Rewrite the following sentences beginning with the given words. (1 point each)

1- Doctors can't operate for a long time if they don't use the heart-lung machine.

Unless _____ .

2- Many people died because doctors didn't use the heart-lung machine.

If _____ .

3- Many lives have been saved since the machine was introduced.

The machine _____ .

4- He underwent an operation although he was weak.

Despite _____ .

D. Rewrite the following sentences correcting the mistake (s) in each. (1 point each)

1- The machine, who is in every operating room, is used in every open heart surgery.

2- The pump used in these machines take the blood back to the body.

3- Because of this machine, surgery advanced more rapid and became more safe than before.

II. Writing. (7 points).

Besides the heart-lung machine, many machines were invented in the last century. Which, in your opinion, is the most important? Why? (12-15 lines).



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Answer of English

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- A.** Answer the following questions. (1 point each)
- 1- Open- heart surgery has advanced more rapidly.
Heart surgeons have been able to operate on the heart for longer periods of time.
 - 2- If we don't pump the blood gently.
 - 3- Because it is everywhere.
- B.** Use a word from the text to complete the following sentences. (Write only the words). (½ pt each).
- 1- The drug I took was very efficient: I was cured quickly.
 - 2- Her illness and suffering lasted several years before she died.
 - 3- Many accidents occur on this highway because there are not traffic signs.
 - 4- I was so afraid that I became motionless instead of running.
 - 5- It rained steadily for several hours: this made the streets flood.
 - 6- Due to the bad weather, flights will be delayed. (Don't use because).
- C.** Rewrite the following sentences beginning with the given words. (1 point each)
- 1- Doctors can't operate for a long time if they don't use the heart-lung machine.
Unless they use the heart-lung machine, doctors can't operate for a long time.
 - 2- Many people died because doctors didn't use the heart-lung machine.
If doctors had used the heart-lung machine, many people wouldn't have died
 - 3- Many lives have been saved since the machine was introduced.
The machine which was introduced saved many lives.
 - 4- He underwent an operation although he was weak.
Despite his weakness/being weak, he underwent an operation.
- D.** Rewrite the following sentences correcting the mistake (s) in each. (1 point each)
- 7- The machine, which is in every operating room, is used in every open heart surgery.
 - 8- The pump used in these machines takes the blood back to the body.
 - 9- Because of this machine, surgery advanced more rapidly and became more safe than before.
- II. Writing. (7 points).**