Name:..... No:.....

Mansoura University
Faculty of Engineering
Department: B.M.E.
Course: English 2

Academic Year 2014/2015
Time of the Exam: 120 m.
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Final Exam "Form B"

Please answer all of the following questions in the answer sheet. (Total marks 50)

Section One: Structure and language Skills:

I. Restate the following using the general techniques of paraphrasing:

The invention of the incandescent light bulb by Thomas A. Edison in 1879 created a demand for a cheap, readily available fuel with which to generate large amounts of electric power. Coal seemed to fit the bill, and it fueled the earliest power stations(which were set up at the end Of the nineteenth century by Edison himself). As more power plants were constructed throughout the country, the reliance on coal increased. Since the First World War, coal-fired power plants have accounted for about half of the electricity produced in the United States each year. In 1986 such plants had a combined generating capacity of 289,000 megawatts and consumed 33 percent of the nearly 900 million tons of coal mined in the country that year. Given the uncertainty in the future growth of nuclear power and in the supply of oil and natural gas, coal-fired power plants could well provide up to 70 percent of the electric power in the United States by the end of the century.

II. Read the following groups of words. In each one, underline the simple subject. Then circle the verb.

1. The local wildlife refuge is home to over seventy species of birds.
2. Always read the safety instructions before using a new power tool.
3. The number of businesses in this country has increased every year for the past decade.
4. All day and all night unceasingly fell the rain.
5. When will tomorrow morning's band rehearsal begin?

Section Two: Reading Skills:

I. Read the passage and answer the questions that follow: (Passage 1)

People have been donating blood since the early twentieth century to help accident victims and patients undergoing surgical procedures. Usually a pint of whole blood is donated, and it is then divided into platelets, white blood cells, and red blood cells. People can donate blood (for red blood cells) about once every two months.

Transfusing the blood from the donor to the recipient is straightforward. It involves taking the blood from a donor's arm vein by means of a hypodermic syringe. The blood flows through a plastic tube to a collection bag or bottle that contains sodium citrate, which prevents the blood from clotting.

When the blood is given to a patient, a plastic tube and hypodermic needle are connected to the recipient's arm. The blood flows down from the container by gravity. This is a slow process and may last as long as 2 hours to complete the infusion of blood into the recipient. The patient is protected from being infected during the transfusion. Only sterile containers, tubing, and needles are used, and this helps ensure that transfused or stored blood is not exposed to disease causing bacteria.

Negative reactions to transfusions are not unusual. The recipient may suffer an allergic reaction or be sensitive to donor leukocytes. Some may suffer from an undetected red-cell incompatibility.

Unexplained reactions are also fairly common. Although they are rare, other causes of such negative reactions include contaminated blood, air bubbles in the blood, overloading of the circulatory system through administration of excess blood, or sensitivity to donor plasma or platelets.

Today, hospitals and blood banks go to great lengths to screen all blood donors and their blood. All donated blood is routinely and rigorously tested for diseases, such as HIV (which causes AIDS), hepatitis B, and syphilis. When the recipient is a newborn or an infant, the blood is usually irradiated to eliminate harmful elements. Donated blood is washed, and the white blood cells and platelets are removed.

Storing the blood sometimes requires a freezing process. To freeze the red blood cells, a glycerol solution is added. To unfreeze, the glycerol is removed. The ability to store blood for long periods has been a boon to human health.

1. Which of the following words is closest in meaning to the word "donating" in line 1?
   (A) Adorning
   (B) Giving
   (C) Taking
   (D) Distributing

2. In line 2, the word "it" refers to
   (A) accident victims
   (B) surgical procedures
   (C) a pint of whole blood
   (D) surgery patients

3. According to the passage, how often can people donate blood for red blood cells?
   (A) Every four months
   (B) Every three months
   (C) Every two months
   (D) Every month

4. Where in the passage is the best place for the following sentence?
   Inserting the needle into the recipient's arm causes little pain.
   (A) After the last sentence in the first paragraph
   (B) After the word "syringe" in paragraph 2
   (C) After the word "arm" in paragraph 3
   (D) After the word "transfusion" in paragraph 3

5. Which sentence in paragraph 2 explains how clotting is prevented in the blood container?
   (A) The first sentence
   (B) The second sentence
   (C) The third sentence
   (D) None of the above.

6. All of the following are mentioned as potential negative reactions to transfusions EXCEPT:
   (A) allergies
   (B) red-cell incompatibility
   (C) air bubbles in the blood
   (D) sensitivity to donor leukocytes

7. What answer choice is closest in meaning to the word "undetected" in line 13?
   (A) Not wanted
   (B) Not captured
   (C) Not found
   (D) Not illustrated

8. Look at the phrase "go to great lengths to screen" in paragraph 5, lines 17. Choose the word that has the same meaning.
   (A) Routinely
   (B) Rigorously
   (C) Irradiated
   (D) Removed

9. Based on the information in the passage, what can be inferred about blood transfused to infants and newborns?
   (A) It is as rigorously tested as blood for adults.
   (B) It is treated with radiant energy.
   (C) It is not treated differently from adults.
   (D) It is not dangerous for children.

10. What does the author imply in the passage?
    (A) Transfusing blood is a dangerous process.
    (B) Storing blood benefits mankind.
    (C) Clotting cannot be prevented.
    (D) Freezing blood destroys platelets.

II. Read the passage and answer the questions that follow: (Passage 2)

Steamboats were shallow-draft boats propelled by steam-driven paddle wheels. In the nineteenth century, they could be seen every day on rivers, particularly on the Mississippi River and its principal tributaries in the United States.

The development of the steamboat as a practical means of transportation began in America in 1787, but it wasn't until 1811 that a steamboat was built specifically to travel along the lower Mississippi River. The boat, called appropriately the New Orleans, was built at Pittsburgh, Pa., for Robert Fulton and Robert R. Livingston. In 1812, the two men began operating a regular steamboat service between New Orleans and Natchez, Mississippi. Their vessels traveled at eight miles per hour downstream and three upstream.

In 1816, Henry Miller Shreve launched his steamboat Washington, and soon became known as the father of Mississippi navigation, because he adapted steamboat design to fit the shallow waters of the river. He installed the engine high up above the water line and mounted it on a hull that was as shallow as that of a barge. He also added a tall second deck, and afterwards all Mississippi steamboats copied Shreve's design. From then on and until about 1870, the steamboat dominated the economy, agriculture, and commerce of the middle area of the United States.

By 1834, there were 1,200 steamboats, carrying not only cotton and sugar, but also passengers who enjoyed luxuriously appointed lounges with rich rugs, oil paintings, and chandeliers. Many steamboats were famous for their chefs, orchestras, and large staffs of maids and butlers to assist their cabin passengers.

Steamboat pilots had to memorize or guess at the depths of the river and its potential obstacles along long stretches of river in order to navigate safely. The average life span of a steamboat was only four to five years, because most of the vessels were poorly constructed and maintained. They sank after hitting sand bars and hidden rocks in the river, and many of their boilers exploded, causing many deaths among their passengers. By the 1870s, railroads had become more efficient modes of transport and gradually caused the retirement of almost all the steamboats from the river.

1. In the passage, it is implied that steamboats were used mainly
   (A) in New Orleans
   (B) in the Mississippi River valley
   (C) along the Hudson River
   (D) in Washington, D.C.

2. Which of the following is closest in meaning to the word "tributaries" as used in line 2 of the passage?
   (A) A stream that flows into another
   (B) A party honoring a famous person
   (C) A three-wheeled vehicle
   (D) A state that has a border on three other states

3. According to the passage, in what year were steamboats operating regularly on the Mississippi?
   (A) 1811
   (B) 1810
   (C) 1813
   (D) 1812

4. Which of the following does the phrase "means of transportation" as used in line 4 refer to?
   (A) Travel
   (B) America
   (C) Built specifically
   (D) Steamboat

5. According to the passage, why was Henry Shreve called the "father of Mississippi navigation"?
   (A) He adapted steamboat design to fit the shallow waters of the river.)
   (B) He was born and raised in a small village on the banks of the Mississippi.
   (C) He printed maps for the steamboat captains and pilots.
   (D) He designed a steering mechanism that other steamboats used.

6. Which of the following is the closest in meaning to the phrase "from then on" as used in line 12 in the passage?
   (A) Consequently
   (B) Subsequently
   (C) Apparently
   (D) Thoroughly

7. According to the passage, how fast did the *New Orleans* travel downstream between New Orleans and Natchez?
   (A) 3 miles per hour
   (B) 13 miles per hour
   (C) 8 miles per hour
   (D) 18 miles per hour

8. According to the passage, after the 1830s, steamboats had all of the following EXCEPT:
   (A) Orchestras
   (B) Chefs and maids
   (C) Air conditioning
   (D) Chandeliers

9. According to the passage, how long did the average steamboat remain afloat?
   (A) Four to five years
   (B) Three to four years
   (C) Two to three years
   (D) Five to six years

10. Where can the following sentence best be added to the passage?
    Mark Twain, a steamboat pilot who became one of America's greatest writers, told about his brother's death in a steamboat explosion in his book *Life on the Mississippi*.
    (A) After the words "Mississippi River" in paragraph 2
    (B) After the phrase "Shreve's design" in paragraph 3
    (C) After the word "chandeliers" in paragraph 4
    (D) After the phrase "their passengers" in paragraph 5

Section Three: Writing Skills:

I. Read the following passage then answer the questions that follows

The difference between a liquid and a gas is obvious under the conditions of temperature and pressure commonly found at the surface of the Earth. A liquid can be kept in an open container and fills it to the level of a free surface. A gas forms no free surface but tends to diffuse throughout the space available; it must therefore be kept in a closed container or held by a gravitation field, as in the case of a planet's atmosphere. The distinction was a prominent feature of early theories describing the phases of matter. In the nineteenth century, for example. one theory maintained that a liquid could be "dissolved" in a vapor without losing its identity. and another theory held that the two phases are made up of different kinds of molecules: liquidons and gasons. The theories now prevailing take a quite different approach by emphasizing what liquids and gases have in common. They are both forms of matter that have no permanent structure, and they both flow readily. They are fluids.

A. Give a title for the passage.

_____

_____

B. Write down the topic sentence.

_____

_____

C. Write down the supporting major ideas.

_____

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II. Write a well-prepared essay about *Only One* of the following topics:

- **Describe a scientific experiment that you know well. Why it is important to you?**
- **Compare between two of the special programs of faculty of engineering (CIE, BME, MTE, and BCE).**

Best of Luck

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Final Exam "Form B"
Answer Key

Please answer all of the following questions in the answer sheet. (Total marks 50)

Section One: Structure and language Skills:

I. Restate the following using the general techniques of paraphrasing: (5 marks)

The answer of this question may vary according to the different paraphrasing strategies own by each student regarding to what they have studied in the course.

II. Read the following groups of words. In each one, underline the simple subject. Then circle the verb. (5 marks)

1. The local wildlife refuge is home to over seventy species of birds.
2. Always read the safety instructions before using a new power tool.
3. The number of businesses in this country has increased every year for the past decade.
4. All day and all night unceasingly fell the rain.
5. When will tomorrow morning's band rehearsal begin?

Section Two: Reading Skills: (20 marks)

I. Read the passage and answer the questions that follow: (Passage 1)

1. b
2. c
3. c
4. c
5. c
6. c
7. c
8. b
9. b
10. b

II. Read the passage and answer the questions that follow: (Passage 2)

1. b
2. a
3. d

4. a
5. a
6. b
7. c
8. c
9. a
10. d

Section Three: Writing Skills:

I. Read the following passage then answer the questions that follows(10 marks)

A. **Give a title for the passage.**
B. **Write down the topic sentence.**
C. **Write down the supporting major ideas.**

The answer of this question may vary according to the different writing strategies own by each student regarding to what they have studied in the course.

II. Write a well-prepared essay about *Only One* of the following topics: (10 marks)

- **Describe a scientific experiment that you know well. Why it is important to you?**
- **Compare between two of the special programs of faculty of engineering (CIE, BME, MTE, and BCE).**

The answer of this question may vary according to the different writing strategies own by each student regarding to what they have studied in the course.

Best of Luck