

**I- Reading:****A- Read the following text then do the tasks below:**

Medical technology engineering helps doctors define their tasks and facilitates their work more, so the medical device has become an essential assistant for the doctors in all steps, starting from diagnosis, to the end of the treatment course. The need for development in this field has made designing medical devices a great priority, and this in turn led to the intervention of electrical, mechanical computer engineers and others, whose knowledge does not depend on their specialties only, but rather, they must be familiar with all aspects of human body, from biology, anatomy and physiology.

Medical devices can be divided into two parts, diagnostic medical devices, most notably the ultrasound device, and medical **therapeutic** devices used in chemical treatments. Another classification includes three categories. Firstly, we have simple devices such as bandages, body temperature meters and others. There are also more complex devices that require a certain amount of caution, such as those that emit X-rays. Finally, there are those which require a deep study before their use, such as the valves used in the artificial heart, in addition to the artificial joints.

In the end, medical engineers work in cooperation with all disciplines, including nursing, medicine, biology, and other disciplines.

**Choose the correct answer a, b, c or d: (60 marks)****1. Medical equipment has become a crucial aid needed by doctors in .....**

- a) few stages                      b) early stages  
c) all stages                        d) final stages

**2. Medical engineers study .....**

- a) engineering  
b) the human body  
c) engineering, the human body and other specialties  
d) both a & b

**3. There are..... classifications of medical devices.**

- a) two    b) three    c) four    d) five

**4. The underlined word therapeutic in the text means:**

- a) relating to the treatment or cure of an illness  
b) an arm or a leg  
c) a field of study  
d) to carry out or do something

**Decide whether the following sentences are true or false:**

5. Temperature meters and X-ray devices belong to the same category of medical devices. ( )

6. In order to develop medical devices, there was a need for the participation of electrical, mechanical computer engineers and others. ( )

**B- Read the following text then do the tasks below:**

Despite the enormous human cost, the First World War did have some results, precisely in the field of medicine as new medical equipment was urgently needed and quickly developed to deal with the huge number of injuries. The new weapons used in this war caused many deaths, and those injured suffered very severe wounds and this pushed the medical establishment to build on recent discoveries and come up with solutions for the new problems that faced doctors. X-rays' use became much more widespread during the war to help detect fragments of bombs and bullets buried in tissue. Stretchers for carrying the injured had also been developed to rescue **them** from the battlefield.

The profession of paramedic, who is able to apply first aid in the field, also comes from this time. Blood transfusion was impractical in these early days at the time of the war, and by 1917, indirect transfusion had been developed and blood stored on ice for up to 26 days. For many, this was the most significant medical **breakthrough** of the war. The war also saw advances in treating wounds which demanded the patient to be unconscious while undergoing medical procedures. In 1917, Henry Boyle invented an **anesthesia** machine and operations done without pain.

**Choose the correct answer a, b, c or d: (60 marks)****7. Because of the modern weapons used in the First World War, many lives were .....**

- a) lost    b) saved    c) protected    d) preserved

**8. The job of a paramedic first appeared in the ..... century.**

- a) 18<sup>th</sup>    b) 19<sup>th</sup>    c) 20<sup>th</sup>    d) 21<sup>st</sup>

**9. Although the First World War had a negative impact on the whole world, .....**

- a) it also killed millions of people  
b) it led to the injury of millions of people  
c) it pushed medical staff to come up with new tools to help the wounded  
d) both a & b

**10. The underlined word anesthesia in the text means:**

- a) a state of temporary loss of sensation for medical purposes  
b) a state of undergoing a medical procedure  
c) a state of feeling pain in a surgical operation  
d) diagnosis of a certain illness

**11. The underlined word breakthrough in the text means:**

- a) being fixed or inserted firmly into something else  
b) important development that may lead to an achievement  
c) the state of being accurate and careful  
d) a neat cut made into the skin

**12. The underlined pronoun them in the text means:**

- a) doctors    b) civilians    c) soldiers    d) the wounded

## II- Use of English

Choose the correct answer a, b, c or d: (130 marks)

13. Education must be ..... to the development of human personality.  
a. directing                      b. directive                      c. direct                      d. directed
14. Everyone endeavours a great deal to make dreams a .....  
a. real                      b. realize                      c. reality                      d. really
15. You can always ..... me if you are feeling tired with your school work.  
a. follow through                      b. get into                      c. reach out to                      d. run into
16. Thousands of young people ..... the ranks of the unemployed each summer when they leave school.  
a. back                      b. join                      c. beat                      d. go under
17. Don't worry. It's a minor procedure and you'll be ..... within a week.  
a. at death's door                      b. just what the doctor ordered                      c. on the mend                      d. on a roll
18. Dr. Rashed, Leila's ..... came in and noted that her blood pressure and pulse were very high.  
a. cardiologist                      b. ophthalmologist                      c. allergist                      d. naturopath
19. This harsh environment is going to ..... at this concrete over time.  
a. eat away                      b. jack up                      c. check over                      d. fence off
20. In the end, Henry needed eight people to push his car ..... the beach and back onto the road.  
a. off                      b. for                      c. between                      d. with
21. Our lawyer is very good and he does everything .....  
a. on a roll                      b. around the bush                      c. an act of God                      d. by the book
22. After a brief speech, the minister ..... the new statue.  
a. unveiled                      b. disveiled                      c. overveiled                      d. misveiled
23. The word ..... has the voiced sound (ð).  
a. John                      b. path                      c. fish                      d. these
24. In the following sentence "*The present city was founded in 944.*" the first syllable in the word "PREsent is stressed. Therefore, "present" is:  
a. a verb                      b. a noun                      c. an adjective                      d. an adverb
25. The bath in your hotel is full of spiders. You call the manager. What do you say?  
a. I'm sorry about that.                      b. Congratulations!  
c. Please forgive me.                      d. It really isn't good to see such insects here.
26. "I feel the real credit must go to my colleague, Ali." The speaker expressing is .....  
a. uncertainty                      b. modesty                      c. sympathy                      d. apology
27. Today, I am having the oil in my car .....  
a. changing                      b. change                      c. changed                      d. changes
28. This is the city ..... Shakespeare was born in.  
a. which                      b. who                      c. where                      d. whose
29. These clothes are ..... for daily use  
a. design                      b. designing                      c. designed                      d. designs
30. My neighbour ..... for six months. There is no one in his house.  
a. isn't seen                      b. hasn't seen                      c. hadn't been seen                      d. hasn't been seen
31. I've seen this film before. I ..... to see it again now.  
a. am not wanting                      b. doesn't want                      c. don't want                      d. wasn't wanting
32. We ..... where we are going to live yet.  
a. didn't decide                      b. don't decide                      c. haven't been deciding                      d. haven't decided
33. She ..... as a waitress for three years when he met her.  
a. has been working                      b. worked                      c. had been working                      d. is working
34. The bus ..... until 7.30 in the evening.  
a. isn't arriving                      b. won't arrive                      c. hasn't arrived                      d. don't arrive
35. She hurt her back while she ..... in the garden.  
a. is working                      b. was working                      c. has worked                      d. had worked
36. It happened at four in the afternoon when she ..... news on TV.  
a. was watching                      b. watches                      c. had watched                      d. can watch
37. Are the onions ready for the pan? Yes, Mike ..... them.  
a. peeled                      b. has peeled                      c. will peel                      d. had peeled
38. I ..... Niagara Falls and Stanley Park during my last visit to Canada.  
a. will visit                      b. am visiting                      c. visited                      d. had visited

**III. Writing:**

**A- Ask about the underlined word in each sentence:**

(12 marks)

39. A:.....?

B: Education has always been of great importance because of its great role in building society.

40. A:.....?

B: The right of education is considered to be one of the basic universal rights of the human being.

41. A:.....?

B: It enables individuals to get rid of poverty.

42. A:.....?

B: Laws guarantee equal access to higher education without discrimination.

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**B- Identify one mistake in each line then write it correctly on the answer sheet:**

(8 marks)

43. A local jewellery shop was broken into by someone yesterday. The shop had just being locked up by the

A

B

C

D

44. owner when he was threatened by a robber with the gun. He was told by the robber to unlock the shop

A

B

C

D

45. and give it all the diamonds in the safe. Then he was tied up by the robber. A search had been organized

A

B

C

D

46. by the police for the robber? It's hoped he would be found in a few days. The owner of the shop is being

A

B

C

D

treated by doctors for shock.

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**C- Composition: (30 marks)**

In no more than 80 words, write a description of a recent engineering project.

Use the following prompts to help you write your composition:

- *name the project*
- *place and time of performance*
- *advantages and disadvantages*
- *opinion*

***Good Luck***