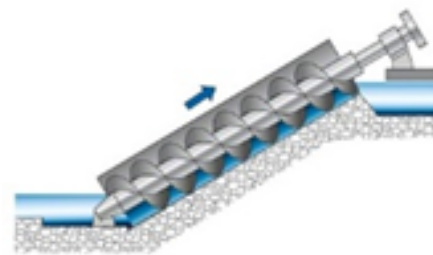


## B MHX REVISION

### A. READING

Read the text below and answer the questions that follow:



## The history of engineering

Engineering is the application of mathematics and scientific, economic, social, and practical knowledge in order to invent, design, build, maintain and improve structures, machines, tools, systems, components and materials.

The word "engineer" was unknown in ancient times. It first appeared in the Middle Ages. It comes from the Latin word "ingenium", meaning cleverness, mental power, intelligence, talent.

The Babylonians, Egyptians and Greeks were the first great engineers of the ancient world. The most famous among them was Archimedes, a great scientist, mathematician and inventor who lived in the 3<sup>rd</sup> century BC in Sicily. He invented many kinds of military engines and the screw pump, a device for transferring water from a low-lying body of water into irrigation ditches. Water is pumped by turning a screw-shaped surface inside a pipe.

The Romans were excellent engineers. They exploited the knowledge and experience of the Greeks and made lots of roads, bridges and large public buildings.

Engineering was greatly developed in the 17<sup>th</sup> and 18<sup>th</sup> century when some great scientists made lots of important discoveries in the field of mechanics. Among these were Galileo, Hook, Newton, Pascal, etc. French and English engineers of the 17<sup>th</sup> and 18<sup>th</sup> century set the basis of modern engineering science.

In the 19<sup>th</sup> and 20<sup>th</sup> century, scientists have made wonderful discoveries and inventions, indeed, but engineers have achieved great technological miracles.

**"Science is the king of the world today, but engineering is the power behind the throne" Philip Pollock**

## I. According to the text which of the statements below are true?

1. The text says that mechanical engineering is a combination of sciences and knowledge.
2. Engineers apply their knowledge to perform various tasks.
3. The first engineers appeared in the Middle Ages.
4. The root of the word 'engineer' means intelligence.
5. The Archimedean screw pump can carry water to a lower level.
6. Archimedes made a lot of inventions.
7. The Romans developed the existing knowledge and became great constructors.
8. The Greeks made use of the Roman knowledge.
9. 19<sup>th</sup> and 20<sup>th</sup> centuries were poor in technological inventions.
10. Engineers are the driving force of technology.

## B. VOCABULARY AND GRAMMAR

a) Fill in the blanks of the sentences below with the correct form of the words given in capital letters.

1. Engineering is applied in building **construction**. (CONSTRUCT)
2. An **escalator** is a moving staircase on which people move up and down. (ESCALATE)
3. The system that lowers the temperature in a space to preserve foods is called **refrigeration**. (FRIDGE)
4. A ball is **spherical** in shape. (SPHERE)
5. A good engineer should have a certain **knowledge** of Mathematics. (KNOW)
6. **Maintenance** technicians are well paid. (MAINTAIN)
7. He is experienced in the **installation** of heating systems. (INSTALL)
8. Lifts are used for vertical **transportation** in buildings. (TRANSPORT)
9. Large factories are also called **industrial** plants. (INDUSTRY)
10. A **designer** plans and makes drawings of objects, machines etc. (DESIGN)
11. **Safety** at work is important for every technician. (SAFE)
12. All **mechanical** parts of this tool machine must be repaired. (MECHANIC)
13. This is a **triangular** pyramid. (TRIANGLE)
14. Most tubes are **cylindrical**. (CYLINDER)

b) Choose the word or phrase which best completes each of the sentences below:

1. I'm sorry but I \_\_\_\_\_ (don't have / **can't**) diagnose the engine problem.
2. These engines \_\_\_\_\_ (**are** / have) expected to bring a revolution to the car industry.
3. Most technicians \_\_\_\_\_ (may / **must**) be strong enough to work under conditions that require muscular action.
4. An organized technician always \_\_\_\_\_ (**keeps** / is keeping) their tools in good working order.
5. I see that they \_\_\_\_\_ (wear / **are wearing**) a face shield for their safety.
6. Don't touch these wires! You \_\_\_\_\_ (must / **may**) be electrocuted!
7. I work for an electric company which \_\_\_\_\_ (is supplying / **supplies**) a lot of households with electricity.
8. The workers are downstairs. They \_\_\_\_\_ (**are loading** / load) the truck with the faulty components we received yesterday.
9. You \_\_\_\_\_ (**should** / may) take your car to the service center. The engine noise is really bad.
10. If he \_\_\_\_\_ (don't knows / **doesn't know**) how to fix a damage he should get more training.
11. A technician's job \_\_\_\_\_ (**involves** / is involving) skilled practical work with the use of special equipment.
12. Drafting is an international language that every technical person \_\_\_\_\_ (**is using** / **uses**) to communicate his ideas to others.
13. An angle of 90 degrees ( $90^{\circ}$ ) \_\_\_\_\_ (**is called** / calls) a right angle.