FIFTH EVALUATION EXAMINATIONS

Name of Student_____

Class of Student: Form 3.   Score_____ Remarks _____Duration_____

Competence(s) Aimed at: WORKDONE BY A BODY

Parent's Signature and Remarks_____

SUBJECT: PHYSICS

MCQ circle the correct answer

1) A force of 200N is applied horizontally to move a bag over 60m along a level floor the work done by the first force is
A) 12000J
B) 600J
C) 1200J
D) 60J

2) The work done when a force of 1N is applied to move an object by a distance of 1m in direction of the force is:
A) 1W
B) 1N
C) 1J
D) 1Pa

3) Power is measured in (S.I Unit):
A) Joule, J
B) Strength
C) Pascal's, Pa
D) Watt, W

4) It measures the ability of a machine to overcome the load through an effort:
A) Mechanical advantage
B) Load, L
C) Velocity Ratio
D) Force

5) It is the resistance force overcome by the effort of a machine:
A) Mechanical advantage
B) Load, L

C) Velocity Ratio

D) Force

6) The efficiency of a machine can be expressed in the following EXCEPT:

A) Percentage

B) Fraction

C) Figures

D) Decimal

7) Which of the following is not a simple machine:

A) A Ramp

B) A Gear

C) A pair of scissors

D) A bulb

8) A pair of scissors is a first-class lever because:

10) Which of the following statements is correct

(A) Elastic potential energy exist in all stretched bodies

(B) Elastic potential energy can only be transformed to kinetic energy in bodies

A) Its fulcrum (pivot) is between load and effort.

B) Its fulcrum is between the pivot and the effort.

C) Its effort is between the pivot and the load.

D) Its load is between the pivot and effort.

9) The velocity ratio of an inclined plane depends on:

A) Its length.

B) $\sin\theta$

C) The product of its length and height.

D) Its height.

(C) Hooke's law is based on elastic energy in stretched springs that obey the law

(D) Elastic potential energy is like kinetic energy, both of which are mechanical energy

11) The type of energy store in food and fuel is called ------ energy

(A) Light

(B) Chemical

(C) Solar

(D) Light

12) Work and energy are related. Which of these statements do not give a correction relation between them?

(A) They can be measured in joule and calorie

(B) You can use up or spend energy without doing work

(C) Work is defined solely in terms of energy

(D) Work can be stored as energy

13) In which direction does heat energy flows in the process of heat transfer?

A) From a colder object to a hotter object

B) From a hotter object to a colder object

C) From a high pressure region to a low pressure region

D) In a circular motion

14) To convert sound to electrical energy, which device is used?

A) Micro oven

B) Microphone

C) Refrigerator

D) Fluorescent lamp

15) The most useful energy to man is called_____energy

A) Kinetic

B) Nuclear

C) Electrical

D) Chemical

16) If the mass of a boy on the earth is 70Kg. what will be his mass in the moon

A) 700Kg

B) 700N

C) 70Kg

D) 70N

17) Which of the following material obeys Hooke's law?

(A) Robber band

(B) Elastic string

(C) Spiral spring

(D) None

18) Which of the following example is not an elastic material?
(A) Paper
(B) Metal roofing sheet
(C) Rubber cord
(D) Thin metal rod

19) Which of the following statements is correct?
(A) Elastic potential energy exists in all stretched bodies
(B) Elastic potential energy can only be transformed to kinetic energy in bodies
(C) Hooke's law is based on elastic energy in stretched springs that obey the law
(D) Elastic potential energy is like kinetic energy, both of which are mechanical energy

20) Responsible for the production of images in the eye

A Light energy

B. Electrical energy

C. Nuclear energy

D. Sound energy

SECTION B: STRUCTURAL (Evaluations of Competences)

1) A Labourer on a building site has to lift bricks and water weighing 100N each to the top of the building at 10m high.

a) Help the labourer and propose 2types of simple's machines he can have used.

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b) Among the two types of machines, which one make the work easier.

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c) What can be the work done in lifting the bricks?

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2) A) Define the term lever.

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| A | B | C |
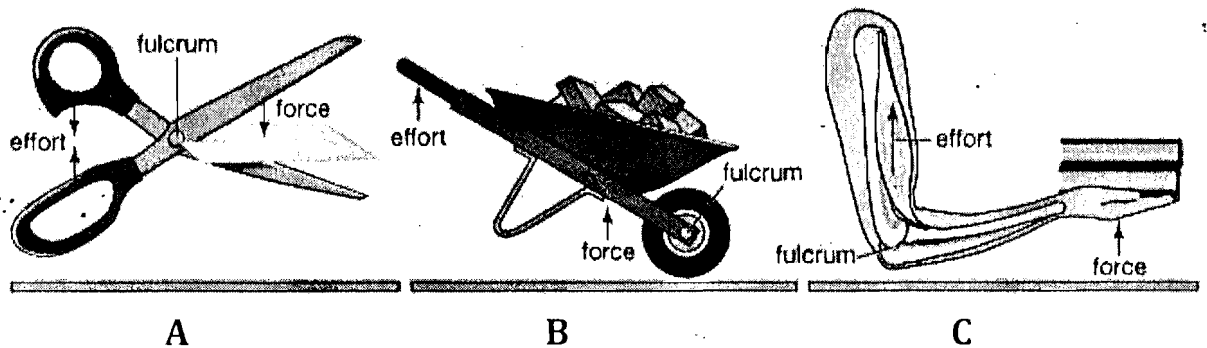
b) Name the order (class) of the lever shown in the figure above.

A: _____

B: _____

C: _____

c) Explain how a lever functions to make work easier.

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_____

d) Give two examples of levers found in your home other than those shown in the figure above.

_____

3) An effort of 300N is used to pull a mass of 50Kg up an inclined plane. The plane is 5m long and the top is 2m high. It takes 20seconds to raise this load

a) How much work is done by the effort

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b) What type of energy is stored in the load at the top of the plane

_____

c) How much of this energy is stored up at the top

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d) Why is the work done not equal to the energy stored in the load

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e) Calculate the MA , VR and the efficiency of this machine and hence explain why will the efficiency is less that 100%_____

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