



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF EDUCATION

VHEMBE WEST DISTRICT

GRADE 08

TECHNOLOGY

NOVEMBER MEMORANDUM

2023

MARKS: 80

This memorandum consists of 5 pages including the cover page.

QUESTION 1

1.1 Multiple choice

- 1.1 A✓
- 1.2 B✓
- 1.3 B✓
- 1.4 C✓
- 1.5 B✓
- 1.6 B✓
- 1.7 B✓
- 1.8 C✓
- 1.9 A✓
- 1.10 C✓

(1x10=10)

QUESTION 2

State whether the following is True or False

- 2.1 True.✓
- 2.2 False.✓
- 2.3 False.✓
- 2.4 True.✓
- 2.5 False.✓
- 2.6 True.✓
- 2.7 True.✓
- 2.8 False.✓
- 2.9 False.✓
- 2.10 True.✓

(1x10=10)

SECTION A TOTAL = 20

QUESTION 3

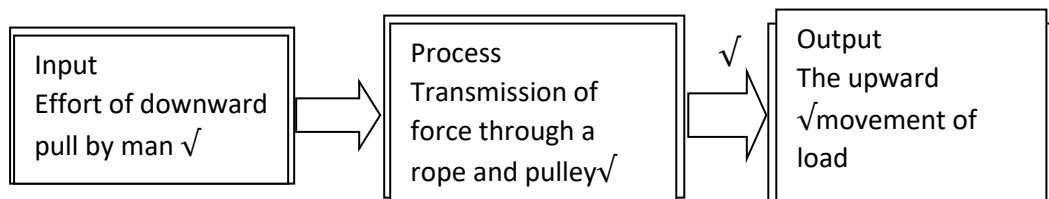
3.1 Pulley system ✓

3.2 Mechanism is a device that change input force or motion into desired output ✓✓

3.3 To lift a load ✓

3.4

✓



[6]

3.4 The ability of a system to make work easier ✓

3.6

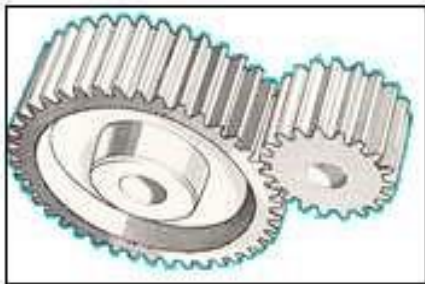
- (a) Rotary motion ✓ -  ✓
- (b) Linear motion ✓ -  ✓
- (c) Reciprocating motion  ✓
- (d) Oscillating motion ✓
✓

(19)

QUESTION 4

4.1.

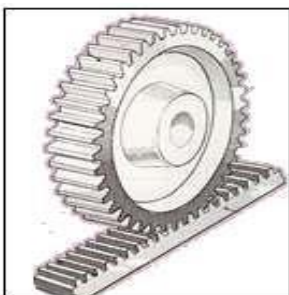
4.1.1 1 **spur gears** ✓ its function is to increase the applied force, change the speed of rotation, change the direction of rotation, change the axis of rotation



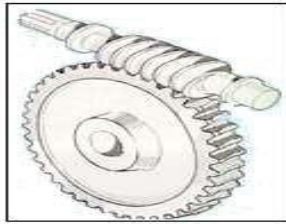
4.1. 2. **bevel gears** ✓ its function is to change the plane of motion at 90° angle. ✓



4.1.3 **rack and pinion** ✓ its function is to change rotation to linear movement. ✓



4.1.4 **worm gear** ✓its function is to deliver an extraordinarily strong turning force with very little input effort. ✓



(8)

4.2.

4.2.1 Clockwise direction ✓✓

4.2.2 Anticlockwise direction. ✓✓

4.2.3 gear ratio = $50/10$ ✓✓ = $5/1$ ✓✓ = $5:1$ ✓✓

[18]

SECTION B TOTAL = 37

SECTION C

QUESTION 5

5.1

Energy source	Advantages	Disadvantages
A. Coal.	Thermal. ✓ stations are the the cheapest way to generate elecprtricity. ✓(ANY 1)	Burning fossil fuel creates air pollution. ✓
B. Sun.	Thermal. ✓ No pollution. ✓ Is free. ✓(ANY 1)	Solar power is expensive. ✓
C. Hydro-electric.	Hydro-electric. ✓ No Pollution. ✓ (ANY 1)	They are expensive to build. ✓ Our country does not have enough water. ✓

1×6(6)

5.2

Dangerous, electrical fires, electrocution and other hazards. /Any relevant answer.(2)

5.3

Term	Statement
5.3.1 step-up transformer.	D. ✓✓
5.3.2 step-down transformer.	C. ✓✓

5.3.3 alternating current.	A. ✓✓
5.3.4 Direct current.	B. ✓✓

2×4(8)

QUESTION 6

6.1

6.1.1 First class lever. ✓✓ (2)

6.1.2 The fulcrum is between the load and the effort. ✓✓ (2)

6.1.2

$$\begin{aligned}
 & \text{Ma} = \frac{\text{Effort arm}}{\text{Load arm}} \checkmark \\
 & = \frac{450 \text{ cm}}{150 \text{ cm}} \checkmark \\
 & = 3 \checkmark \quad (3)
 \end{aligned}$$

SECTION C TOTAL = 23

GRAND TOTAL = 80