



NZQA accredited and registered provider

Clutches and Transmissions

PRACTICE PAPER ONLY

Test Paper One / Time allowed 90 mins

To be completed by the student

Student Name _____ **Date** __ / __ /2020

School/Provider _____

To be completed by the School Invigilator/Coordinator/Tutor

I confirm that this assessment was completed by the student named above as a closed book exercise under exam conditions

Invigilator Name _____

Invigilator Sign _____

Assessed By _____

Date __ / __ / 2020

**Assessor's
Stamp**

Assessors Note: Materials relate to unit standard 239-30560

SAMPLE ASSESSMENT INSTRUCTIONS

PLEASE MAKE SURE TO READ AND SIGN THIS SECTION

ASSESSMENT INSTRUCTIONS

- Before starting this assessment you should have achieved a mark of at least 80% for your workbook.
- Use a black or blue ball point pen. (do not use pencil)
- Write your full name on the cover page.
- This is a closed book assessment, so you cannot bring any reference material in, or seek help from anyone else.
- You need to answer all the questions.
- Read the questions carefully, and give detailed answers when asked to.
- You must complete the assessment under exam conditions.
- To achieve the unit standard you must show competency for each outcome.

Complete the following by circling Yes or No as appropriate:

Are you ready to be assessed? **Yes No**

Have the assessment instructions these been explained to you? **Yes No**

Do you understand the assessment instructions? **Yes No**

Have you all the materials/resources that you need for this assessment? **Yes No**

Please sign to acknowledge that you have read these instructions and are ready to be assessed.

Student Signature: _____ Date: _____

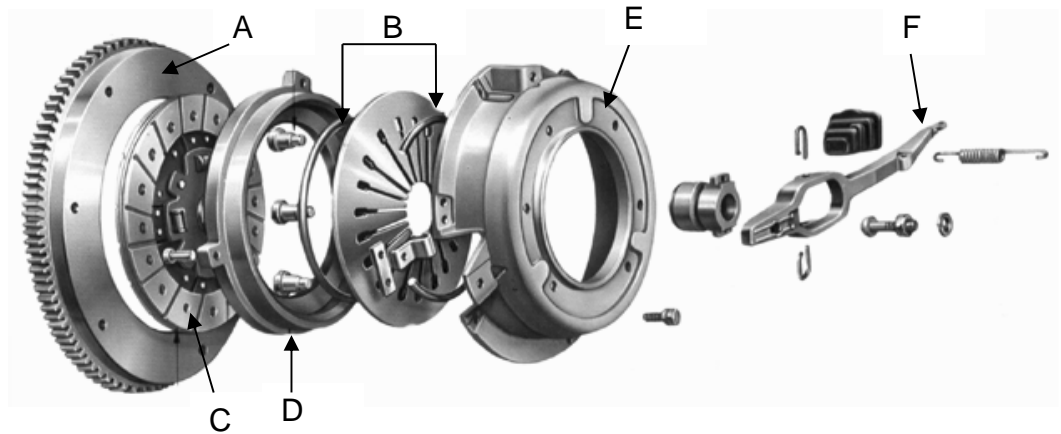
You must complete the assessment instructions on Page 2 before starting this assessment!

ELEMENT ONE

Demonstrate knowledge of manual clutch operation.

- 1 State the function of a clutch system and describe the power flow from the engine flywheel to the gearbox input shaft**

- 2.A Name the clutch components labelled below.**



A		D	
B		E	
C		F	

2B What is the function of the components shown above?

A. _____

B. _____

C. _____

E. _____

F. _____

3. What advantage does a multi-plate clutch have over a single plate type and where would you be likely to find one?

4. Describe what happens to the clutch disc when the clutch pedal is depressed?

5. What is meant by the term “clutch pedal free play”

ELEMENT TWO

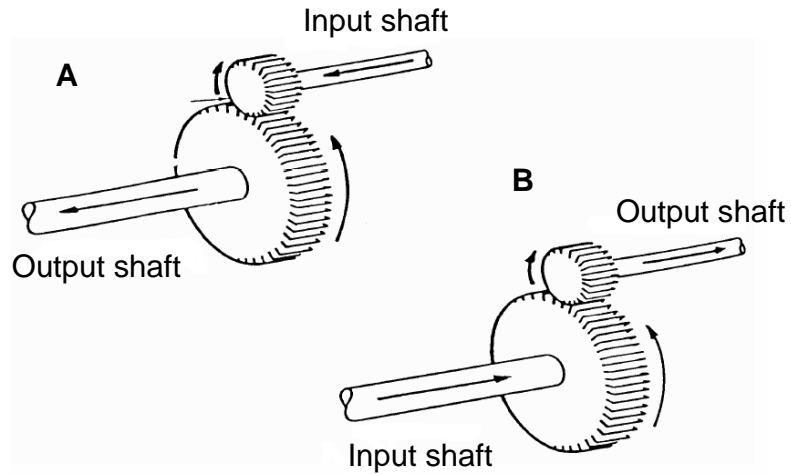
Demonstrate knowledge of a manual transmission.

1. Explain the main purpose of a manual transmission.

2. Complete the table by providing a brief description for each inline transmission component listed.

Input shaft	
Lay gear	
Mainshaft	
Reverse idler gear	
Selector fork	
Synchro mesh assembly	

3. From the diagrams explain why will happen with the output shaft speed and torque in relationship to the input shaft speed and torque.



A: _____

B: _____

3. On selecting a lower gear in a transmission, which of the following statements is correct (please circle A, B C or D). The transmission output shaft will

- A Increase speed and decrease torque
- B Decrease speed and decrease torque
- C Increase speed and increase torque
- D Decrease speed and increase torque

4. Which **THREE** of the following gear ratios are overdrive ratios (please circle A, B, C, D, E, F as appropriate)

A 3.2333:1

B 1.7822:1

C 1.2999:1

D 0.7252:1

E 0.4251:1

F 0.5298:1

6. Identify each of the following transmission components and outline their main function:

Component: _____

Function: _____

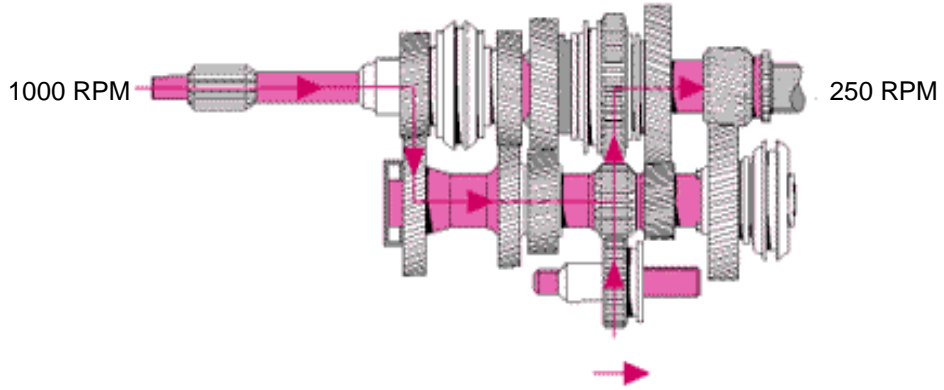


Component: _____

Function: _____



7. Identify the gear shown and describe the relationship between the input and output speeds.



Gear: _____

Relationship: _____

8. Which type of transmission layout is used in motorcycle transmissions?

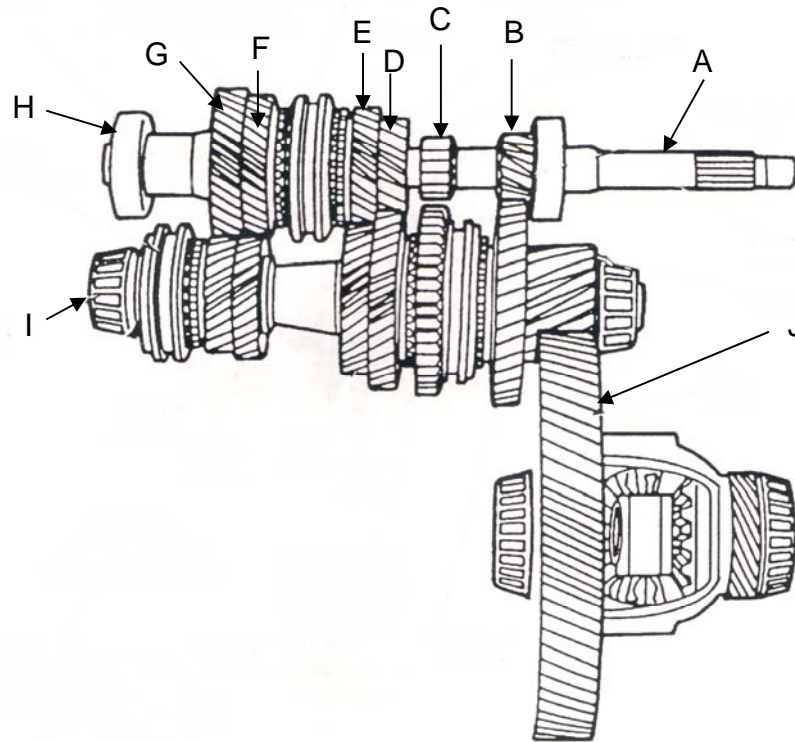
9. State whether the following statements are true or false. Circle T or F as appropriate

T / F Motorcycle transmissions are usually sequential, meaning the gears can only be accessed in ascending or descending order.

T / F Motorcycle clutches are usually a multi-plate configuration.

T / F Many scooters do not have a clutch lever, they use a centrifugal type clutch which automatically engages power to the gearbox as the engines revs increase.

10. Name the transaxle components labelled A-J in the following diagram.



A _____

B _____

C _____

D _____

E _____

F _____

G _____

H _____

I _____

J _____



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