

## Y11 Applied Technology Worksheet # 10

Note: Students to attempt this at the back of their exercise book.

### QUESTION 10

### DESIGN

(20 marks)

#### PROBLEM

The carrying of farm produce from carriers and buses to the market and also from the market to vehicles is a hassle for shoppers and vendors.

#### DESIGN BRIEF

Design a more stable **push and pull goods cart** with more carrying capacity for the purpose of carting goods from carriers and buses to the market.

#### SPECIFICATIONS

The **goods cart** should:

- (i) have ample carrying capacity;
- (ii) have at least three or more tyres;
- (iii) be able to be **pushed and pulled** whichever way the user decides;
- (iv) be light and easy to construct.

#### REQUIREMENTS

- (a) Produce pictorial freehand sketches of **two** possible solutions. (6 marks)
- (b) Draw a pictorial rendered free hand sketch of the final solution taking ideas from the two possible solutions. (4 marks)
- (c) Make a detailed drawing to show the joint between any **two** members. (4 marks)
- (d) Evaluate the two possible solutions using the following headings.
  - (i) Materials Selected
  - (ii) Safety
  - (iii) Structural Strength

(6 marks)

