



# **MURANGA UNIVERSITY COLLEGE**

(A constituent College of Jomo Kenyatta University of Agriculture & Technology)

**MAIN CAMPUS**

**ORDINARY UNIVERSITY EXAMINATIONS**

**2015/2016 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER EXAMINATIONS**

**FOR THE DEGREE**

**OF**

**BACHELOR OF PURCHASING AND SUPPLIES MANAGEMENT**

**COURSE CODE: HPS 2305**

**COURSE TITLE: TRANSPORT MANAGEMENT POLICY**

**DATE: 11<sup>TH</sup> DECEMBER, 2015**

**TIME: 2Hours**

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## **INSTRUCTIONS TO CANDIDATES**

Question ONE (1) is compulsory  
Answer TWO (2) questions

MRUC observes ZERO tolerance to examination irregularities

## QUESTION ONE

Mount Isa Mines is one of the world's great metal mines. Its main operations are at Mount Isa, in Queensland, Australia, where it mines adjacent deposits of copper and silver-lead-zinc ores. Production levels change with world demand and prices, but in a typical year 7 million tonnes of ore are mined to give 150,000 tonnes of copper and lead (containing silver) and 200,000 tonnes of zinc. Mount Isa has serious transport problems. It produces huge quantities of ore in a remote area of Australia, while the main demand for finished metals is in the industrialised areas of the world, particularly Europe. The problem is to process the ores and move them to final markets as cheaply as possible.

You can see the scope of the problem from an outline of the journey for copper. This starts with underground explosions to break up the ore body. The broken ore is collected by front-end loaders and put onto ore trains that carry it to underground crushers. The crushed ore is then hoisted to the surface and stored in crude ore bins, with a capacity of 60,000 tonnes. A conveyor moves ore from these bins to another crusher, where it is reduced to about 10 mm, and passed to fine ore bins. The ore then goes to a rod-and ball crusher for fine grinding, and is pumped to a floatation process, which produces a concentrate of about 25% copper. This concentrate is passed to smelters that roast it to remove some of the sulphur, smelt the roast product to remove iron and silica and leave a copper matte, and then oxidise the matte in a converter to remove more sulphur. The result at this stage is impure copper. This is sent to a casting furnace to remove most of the remaining impurities, and cast the copper into 300 kg ingots. These operations are all carried out at the mine site, so there are two main logistics problems. The first moves huge quantities of materials from the mine to world markets, and the second moves materials needed by the mine, smelters and other operations into the remote site.

The copper ingots are taken by train to Townsville, 800 km away on the coast, for electrolytic refining, which removes any remaining impurities and gives almost completely pure copper. These facilities have a capacity of over 150,000 tonnes a year. At this point the copper is cast into its final form, of cake, bars, rods and wire. These are driven to the nearby port where they are shipped around the world. Copper is only one of Mount Isa's products, and it has similar transport problems with lead and zinc. It also mines coal and gold, has organised its transport operations into a separate company, generates electricity and supplies water for the city of Mount Isa, and is involved in a wide range of mining and associated ventures.

- i) How important do you think transport is for the operations at Mount Isa?
- ii) Enumerate the roles of Mount Isa Mines transport manager
- iii) What alternatives are there for transport? What are the current arrangements and how might they be improved?
- iv) Discuss any five principles of transportation that are likely to be adopted by the Mount Isa Mines

## QUESTION TWO

“Transportation is referred to as the arteries and veins through which the heart pumps products and value added services from one point in the chain to another”. Describe the relationship between marketing and physical distribution, explaining how physical distribution contribute to creating demand (12marks)

The rate charged by a carrier will vary with the commodity shipped and will depend upon several other factors. Briefly describe four such factors (8 marks).

### **QUESTION THREE**

- a) A system is a set of components or activities that interact with each other in a distribution system, six interrelated activities affect customer service and the cost of providing it: using well articulated examples discuss any four of these interrelated activities (10 mks)
- b) Containerization is a fairly recent development that has revolutionized sea transport. Highlight five advantages of containerization (5 marks)
- c) Differentiate common carriers from contract carriers (5 marks)

### **QUESTION FOUR**

- a) Discuss six principle functions of a transport manager supporting your argument with relevant and practical examples where applicable (12 marks)
- b) The specific way in which materials move depends upon many factors. Describe four such factors (8 marks)

### **QUESTION FIVE**

- a) Write brief explanatory notes on the following transport terminology
  - i. Demurrage (2 marks)
  - ii. Wharfage (2 marks)
  - iii. Reverse logistics (2 marks)
  - iv. Diversion and re-consignment (3marks)
- b) Briefly describe any two roles of warehousing (6 marks)
- c) Highlight five reasons why goods are returned (5 marks)