



**TECHNICAL UNIVERSITY OF MOMBASA  
SCHOOL OF BUSINESS**

**Department of Management Science**

---

END OF SEMESTER EXAMINATION FOR THE BACHELORS DEGREE IN MARITIME  
MANAGEMENT – YEAR ONE – SEMESTER 2

BMM: 4103 – INTRODUCTION TO PORTS AND HARBOR OPERATIONS

**Instructions:** Answer Question ONE (Compulsory question) and any other two Questions

1. a) Externalities occur when one person's action affect another person's well being. However there are externalities regarded as positive. Explain [12 Marks]

b) Define port state control [2 Marks]

c) According to IMDG Code, dangerous goods must be labeled according to their class. Show how the following should be marked:

i) Poison ii) Radioactive iii) Flammable gas iv) Explosives [8 Marks]

d) When implementing port privatization process, landlord functions should be retained by port authority. List any 4 the functions that should be retained [8 Marks]

2. Discuss the role of ports in maritime transport [20 Marks]

3. a) The following information is given to you

- Hook output - 0.9
- Mean Gross Cycle Time - 4.5
- Mean Net Cycle Time - 3.2

Calculate

i. Actual output per hr [5 Marks]

ii. Possible output per hr [5 Marks]

b) What is berth occupancy and what does it indicate? [5 Marks]

c) Explain benefits derived from Inland Container Depots (ICDs) [5 Marks]

4. Port Law, under Harbor Regulation requires that before entering the harbor, every Ship shall hoist certain flags with regard to her national colors, signal letters, port health, immigration, livestock and dangerous goods. Discuss [20 Marks]

5. There are many types of port charges in conventional cargo handling, among which are, stevedoring charges, Wharfage dues, Port dues and charges, Dock or berth dues, storage charges, mooring/unmooring charges, Removal charges e.t.c.

Required: Write short notes on any other three above [20 marks]