

MICROCOMPUTER APPLICATION  
IN  
PRODUCTION MANAGEMENT

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for;

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## PREFACE

This is a final project text report which are done to full-fill the requirement for the final year in the fifth and sixth semester in Diploma in MECHANICAL (MANUFACTURING) ENGINEERING as a final assessment for the students.

"MICROCOMPUTER APPLICATION IN PRODUCTION MANAGEMENT" a topics given to us for ✓ developing a system programmes which deals on a subtopic on a field of operational research. In the programme we are assigned to use BASIC which are preliminary known as a common high level computer language for a beginners. However all the programme are done successfully except certain portion of the programme should be ammend. In this report, we will emphasized you a few topics in production management which we had learned in the fifth semester such as work study, EOQ. Waiting line, linear programming with a few other subjects. We are also been assigned to develop a the theoretical methods and calculation from the above topic given into a programs which we found BASIC as the most suitable language usable in this project.

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## 1.0 OPERATION RESEARCH

It is a scientific method which assesses alternative courses of action in a system provided an improved technique (ie computers) for management decision making. The attack of modern science on complex problems arising in the direction and management of large systems of men, machine material and money in industry business, government and defence. However in this section we will emphasized you the fields included in our analysis by using a computer programming under BASIC Language :

- (a) Work Study using Cumulative Time System.
- (b) Economic Order Quantity (EOQ).
- (c) Waiting Line Theory.
- (d) Linear Programming.
- (e) Critical Path Analysis.

### 1.1 STEPS USED IN DEVELOPING PROGRAMS.

During 6 months on implementing the above programs, we had experienced a lot of difficulties to developed it. However at last, we managed to set up the program although so a few modification should be made continuously. Not all programs are developed sucessfully.

In EOQ and waiting line theory we could not joint certain variable and some decisions entirely.

After studying and analysing the problem on those subjects, we can classified stated down the procedures in developing the programs :-

- a. Formulating and analysing the problems includes studying all aspect of developing the problems.
- b. Constructing a flow chart of the programs.
- c. Amending any alteration if necessary.
- d. Constructing a mathematical model to represent the system under study.
- e. Deriving a solution from the programs.
- f. Testing the programs and solutions derived from it.
- g. Establishing control over the solution.
- h. Putting the solution by implementing a logical and systematic asignment or example onto the programs.