

(Write very clear)

Candidate's Number: 190407024

*1st/2nd Semester Examination, 20..... 23 / 24 Session

Faculty..... ENGINEERING Department: SYSTEMS

Course Code..... SSG 349

Course Title..... INDUSTRIAL ENGINEERING

(*Cross out the word which does not apply)

UNIVERSITY OF LAGOS

INSTRUCTIONS TO CANDIDATES

1. Write legibly on both sides of the paper.
2. Begin each answer on a fresh page.
3. Write the number of the question at the top of each page.
4. Cross out rough works.
5. In your own interest you should enter in the space provided below, the number of each question attempted (with sub-sections where necessary).
6. If supplementary books are used they must be fastened at the end of this book and inside the cover.
7. In no circumstances must answer books used or unused be removed from the Examination Room by a candidate.
8. Folding of, or tampering with this booklet in any way will attract severe penalty.
9. Do not write anything on your question paper except your matriculation number.
10. For your rough work, use only (a) the inside cover and (b) the last page of your answer booklet.

For Examiners use only	
Question No	Marks
3	10
5	03
2	03
1	03
	15
Total	

NUMBER OF QUESTIONS in order in which they
are answered

(b) Method Study is the systematic recording and critical examination of ways in order to maximize results.

STEPS INVOLVED

- (i) SELECT the data needed for solving the study.
 - (ii) RECORD the data required for solving problems.
 - (iii) EXAMINE the data/facts recorded.
 - (iv) DEVELOP the plan being examined.
 - (v) DEFINE the plan ensuring all stages
 - (vi) Execute the plan
- ~~MAINTAIN~~ ^(vii) MAINTAIN: Once the plan has been set in motion it must be monitored
- (c) (i) To improve plant and material utilization
 - (ii) To provide the best possible environment for working
 - (iii) To provide the best possible way for working
 - (iv) To determine the best sequence of doing work
 - (v) To improve waste and unproductive operations.

(B) Method Study is the systematic recording and critical examination of ways/facts in order to maximize results.

(a) Simulation

(i) Optimization

(ii) Ergonomics

(iv) Project Defense system

(b) Work Breakdown Structure: This is the structure

implemented to ensure the highly efficient and maximum profit is achieved by ensuring the breakdown of work in cycles.

(c) Quality control. (d) (i) Quality planning

(ii) Quality planning

(ii) Quality control

(iii) Quality assurance

(c)(i) Quality planning: This is the planning of giving available resources/product to achieve a desirable efficient users products.

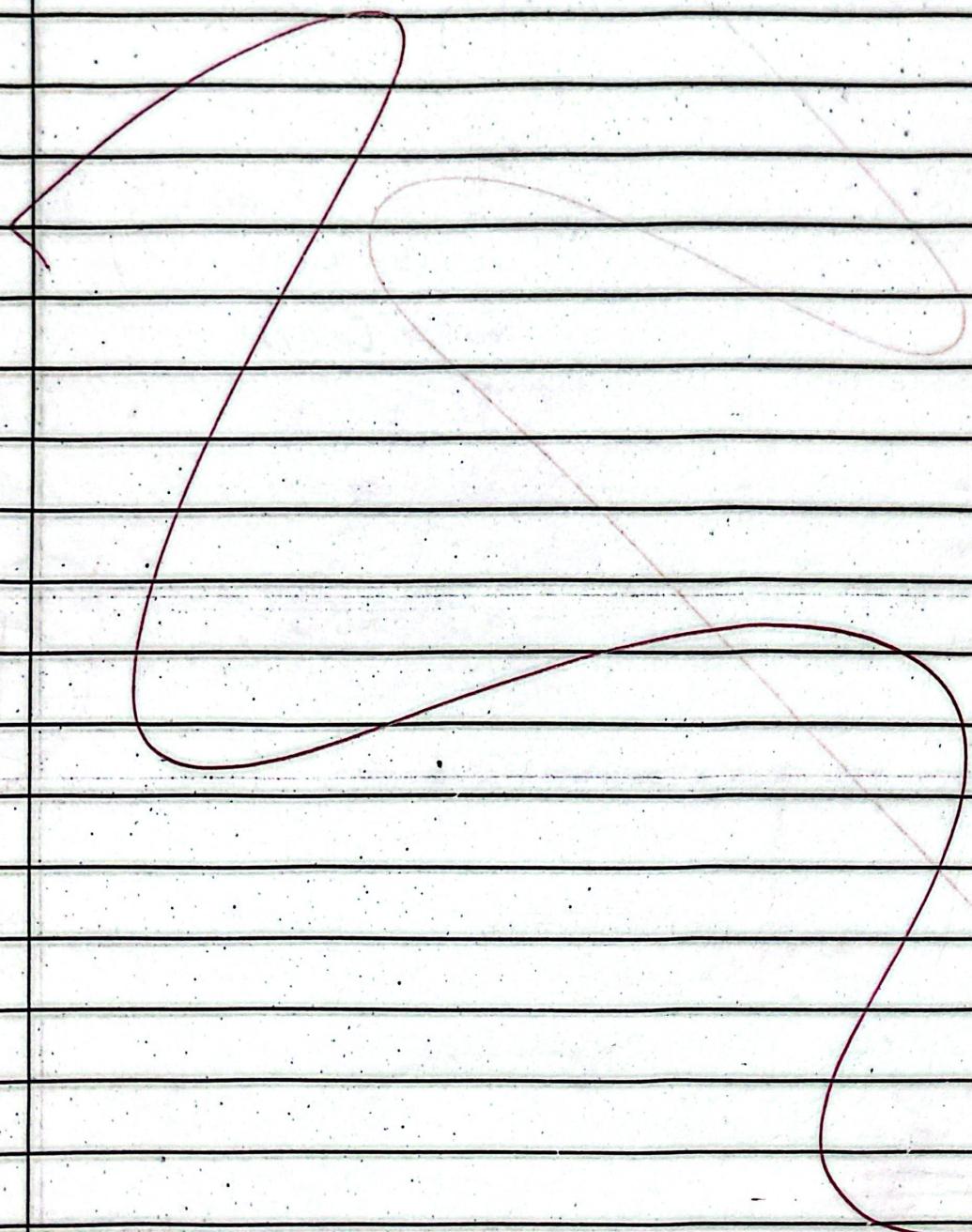
(ii) Quality control: This step involves taking control of the planned structure in order to get a good quality service.

(iii) Quality assurance: After taking control of user's own to achieve desirable service, the products must be tested to ensure the quality of the products.

(a) Time Study Brand:

(b) Time study Observation sheet:

(c) Engineering Design is both iterative and cyclic



④ Quality Costs

Types of quality costs:

Conformers cost

Non-conformers cost

(i) Conformers cost

(ii) Non-conformers cost

⑤ WO/ 24 hrs

$$100 \rightarrow 24 \text{ hrs}$$

$$150 \rightarrow x \text{ hrs}$$

$$100x = 350 \text{ } \text{₹}$$

$$x = \frac{350}{100} \text{ } \text{₹}$$

$$x = 350 \text{ hrs.}$$

$$100 \rightarrow 24 \text{ hrs}$$

$$150 \rightarrow x \text{ hrs}$$

$$100x = 360 \text{ } \text{₹}$$

$$x = \frac{360}{100} \text{ } \text{₹}$$

$$x = 360 \text{ hrs.}$$

$$360/24 = 1\frac{1}{2} \text{ days}$$

The processing time = 360 hrs. = 1½ days.