TECHNICAL REPORT ON THE STUDENTS' INDUSTRIAL WORK EXPERIWENCE SCHEME (SIWES)

HELD AT

K.C.C PHARMACEUTICAL COMPANY

NO3, OKOERIN ROAD, ILORIN KWARA STATE

BY

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SUBMITTED TO:

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DEDICATION

I dedicate this report to God Almighty for His Unlimited Grace, Consistent Love, Immeasurable Faithfulness, and for sparing my life throughout the period of my SIWES programme.

Secondly, I dedicate it to my parents **Mr & Mrs OLADEJI** for their undiminished support and unquantifiable assistance throughout the whole exercise and beyond.

ACKNOWLEDGEMENTS

First and foremost, my deepest acknowledgement goes to God Almighty for His overwhelming love upon my life throughout the Scheme.
I appreciate my parents **Mr. and Mrs OLADEJI** and friends for their constant help and support.

I also appreciate all staff members of K.C.C Pharmaceutical Company, especially my supervisor Mr. ADENIYI KAYODE who gave out of his tight schedules to attend to me.

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CHAPTER ONE

1.0 INTRODUCTION TO SIWES

In 1974, the federal government of Nigeria introduced the National policy on industrial training called the student industrial work experience scheme (SIWES).

This program is under the umbrella of the ministry of education through the Industrial Training Fund (ITF), was design to help student acquire the necessary practical education experience in their fields of study and other related professions.

The program was established basically to impact elaborate practical understanding to student with respect to their various discipline. It is also intended that the student through a process of relation to academic knowledge and practical industrial application would understand the underlying principle and become better focused and acquire the practical application toward excellence in his/her discipline.

The student are expected to develop occupational competence that would facilitate their fitting into the world of work after graduation.

1.1 AIM AND OBJECTIVE OF SIWES

The student industrial work experience scheme (SIWES) has it major aims and objective of establishment. The following are the aim and objective of the program.

i. To provide student an opportunity to apply their theorical knowledge in really work situation, thereby bridging the gap between theory and practical.

ii. To expose student to working method and techniques in handing equipment and machineries that is not available in their various institutions.

iii. To make the transition from the institution to the world of work easier and thus enhance student contact for later job placement

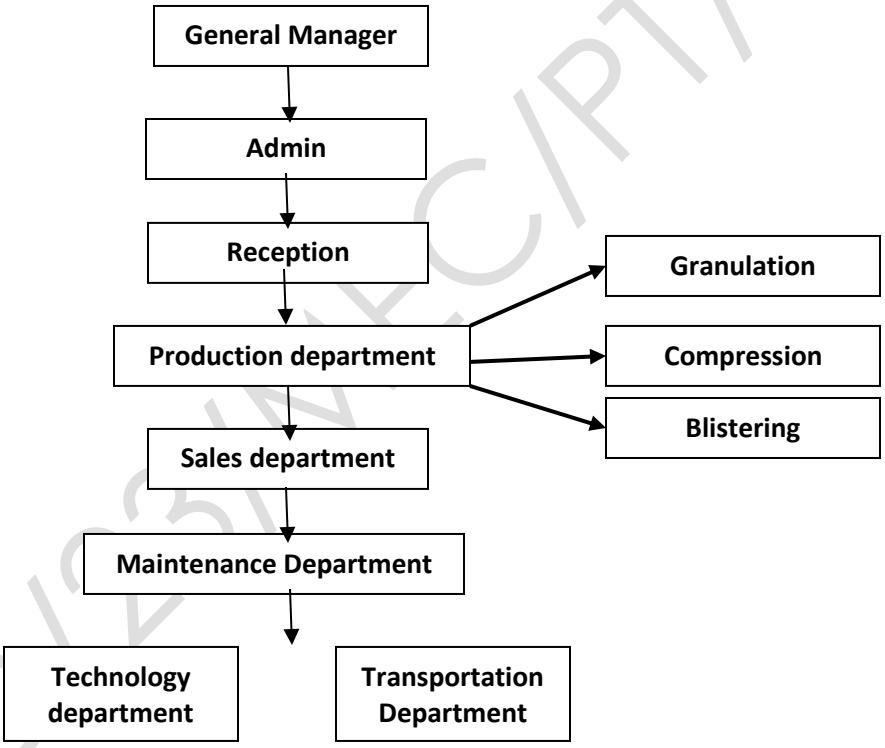
iv. To prepare student in skill development by participating in field works, particularly in writing report in their fields of works.

1.2 HISTORICAL BACKGROUND OF THE ORGANIZATION ATTACHMENT

KCC Pharmaceuticals Ltd, an indigenous privately owned Pharmaceutical company dedicated to improving the health of the nation through healthcare. KCC was established with a passionate desire to serve humanity

through the provision of quality pharmaceutical products. A mantle, held highly over the years and will continue to be upheld above all values for a sustainable and healthy society. With a rich history of 23years of experience and a strong commitment to research and development, we strive to maintain the quality of our products for both human and animal consumption. Our profile products and pipeline of future medicines reflect our focus on Analgesics, Anti-malaria,Vitamins, Anti-diarrhoea, Hematinics, Antacids, Expectorants, Nasal decongestants, Anti-biotics and corticosteroids, where we aim to make a significant impact on patient outcomes and quality of life. Through our unwavering dedication to excellence, integrity, patient-centricity, we aim to earn the trust of healthcare professionals, patients and the communities we serve.

1.3 ORGANIZATION CHAT OF THE ORGANIZATION



1.4 MAJOR ACTIVITIES OF THE ORGANIZATION

K.C.C Pharmaceutical Company basically has five department which include:

i. Production department

ii. Sales department

iii. Maintenance department

iv. Technology department

v. Transportation department

I. **Production Department: -** They are responsible for the manufacturing of drugs and pharmaceutical products, encompassing everything from raw material handling to finish product packaging, while adhering to strict quality control and regulatory standard.

II. **Sales Department:** The sales department focuses on promoting and selling medication to healthcare professionals, aiming to increase market share and drive revenue growth.

III. **Maintenance Department:** The maintenance department plays a crucial role in ensuring the reliability and performance of equipment and facilities to maintain product quality and regulatory compliance.

IV. **Technology Department:** The technology department, often encompassing pharmaceutical technology or related fields, focuses of the development, production and evaluation of drugs and drug delivery systems, ensuring high-quality and safe medications.

V. **Transportation Department:** The transportation department also known as pharmaceutical logistics, ensures the safe and efficient movement of medicines, active ingredients, and excipients throughout the supply chain, from manufacturing to pharmacies, while maintaining product integrity and quality.

1.5 WORKSHOP SAFETY

Safety is the preventive measure timely taken to guide against any form of hazard injury or accident in our daily activities in the workshop. Workshop safety is particularly focusing on ways of preventing danger particularly accident, injury a times death to personnel or other things around the operator while doing work. The following are the basic work shop safeties that must be comply with these include:

I. Always clean the machine and check the condition of the machine before working on it

II. Do not use the hand to stop the working machine

III. Do not play with any machine

IV. Know where the emergency stop buttons are positioned in the workshop in case of accident.

V. Always listen carefully to the supervisor and follow the instructions.

CHAPTER TWO

2.0 BASIC WORKSHOP HAND TOOLS

The following are the basic workshop hand tools and equipment used in mechanical workshop:

Spanner

Hammer

Bench Vice

Tap and die

Hand Drilling Machine

Safety Goggle

2.1 SECTION OF THE ORGANIZATION AND THEIR SPECIFIC FUNCTION

i. Production department

ii. Sales department

iii. Maintenance department

iv. Technology department

v. Transportation department

a) **Production Department: -** They are responsible for the manufacturing of drugs and pharmaceutical products, encompassing everything from raw material handling to finish product packaging, while adhering to strict quality control and regulatory standard.

Pharmaceutical mixer machines are used for various processes, including powder blending, granulation, suspension preparation, and the production of semi-solid formulations like creams and ointments, ensuring consistent and high-quality pharmaceutical products.

Pharmaceutical mixer machine

A 45-station machine, often a rotary tablet press, is used in pharmaceutical, ceramic, and herbal industries to produce tablets from powder by compressing it into a consistent size and shape.

45-station machine

Fluid bed dryers are used to reduce moisture content in various materials like powders, granules, and tablets, and are popular in industries like pharmaceutical, chemical, food, and fertilizer production.

Fluid bed dryers

High-speed air compressors are used across various industries for applications requiring a given volume of compressed air in a smaller package, such as powering pneumatic tools, manufacturing processes, and more.

High speed air compressor

Pharmaceutical bottle capping machine: In the pharmaceutical industry, bottle capping machines are used to apply and seal caps on medicine bottles, ensuring a secure and sterile environment for the medication, protecting it from contamination and maintaining its integrity

Pharmaceutical bottle capping machine

Electric Insect Killer uses Ultra Violet light to lure light sensitive insects into an electronically charged metal grid, destroying them quickly and hygienically. Dead insects are collected in the screw-in tray at the base of the unit.

Reverse osmosis machines are used to purify water by forcing it through a semi-permeable membrane, removing contaminants like salts, minerals, and other impurities, making it suitable for drinking water, industrial processes, and more

b) **Sales Department:** The sales department focuses on promoting and selling medication to healthcare professionals, aiming to increase market share and drive revenue growth.

c) **Maintenance Department:** The maintenance department plays a crucial role in ensuring the reliability and performance of equipment and facilities to maintain product quality and regulatory compliance.

d) **Technology Department:** The technology department, often encompassing pharmaceutical technology or related fields, focuses of the development, production and evaluation of drugs and drug delivery systems, ensuring high-quality and safe medications.

e) **Transportation Department:** The transportation department also known as pharmaceutical logistics, ensures the safe and efficient movement of medicines, active ingredients, and excipients throughout the supply chain, from manufacturing to pharmacies, while maintaining product integrity and quality.

CHAPTER THREE

3.0 STUDENT SPECIFIC INVOLVEMENT AT VARIOUS SECTIONS

I was involved in Maintenance department

3.1 PRODUCTION SECTION

Maintenance Department: The maintenance department plays a crucial role in ensuring the reliability and performance of equipment and facilities to maintain product quality and regulatory compliance.

Safety helmets, also known as hard hats, are crucial personal protective equipment (PPE) designed to protect the head from injuries caused by falling objects, impacts, and electrical hazards, making them essential in various workplaces.

Safety boots protect workers' feet from various hazards in the workplace, including impact injuries, punctures, slips, and falls, and can also offer protection from electrical hazards and extreme temperatures.

Safety goggles protect your eyes from various hazards like chemical splashes, dust, debris, and impacts, making them essential in workplaces and activities involving potential eye injuries.

Safety overalls, also known as coveralls, are used as personal protective equipment (PPE) to protect workers from various hazards, including chemicals, dust, debris, and harsh weather, ensuring a safer and more comfortable work environment.

Spanners, also known as wrenches, are hand tools used to grip, turn, and tighten or loosen fasteners like nuts and bolts, finding applications in various fields like mechanical, automotive, and industrial work.

Hammers, a versatile hand tool, are used for a wide range of tasks, including driving nails, shaping metal, breaking rocks, and even in percussive music. They come in various types and sizes for specific applications.

A bench vice, a tool with two parallel jaws, is primarily used to securely hold workpieces during various tasks, including cutting, drilling, filing, sanding, and assembly, providing stability and accuracy.

A hand drilling machine, also known as a manual drill, is used for creating holes in various materials like wood, metal, and plastic, particularly when precision and control are needed, and where power drills might be too aggressive.

Taps and dies are metal threading tools used to create or repair internal (taps) and external (dies) threads, essential for creating secure and precise fastening in mechanical assemblies.

CHAPTER FOUR

4.0 EXPERIENCE GAINED

During the four months program, I gained a lot especially in the maintenance department we do a corrective maintenance of mixer, fluid bed dryer milling and heat extractor. We also deal with rectify warm gear for compressing machine, reduction gear for mixing machine, shaker roller for fluid bed dryer and maintenance for Air condition

4.1 INTERPERSONAL RELATIONSHIPS WITH THE ORGANIZATION

My four month SIWES program has equipped me the knowledge of mechanical engineering design in term of maintenance of a particular Project

During the course of staying with the coordinator in the various section has turn a new movement in my course of study like the maintenance department in person of Mr. yusuf.

4.2 SUGGESTION FOR IMPROVEMENT OF THE PROGRAM

The Industrial training Fund should have up and hold a committee on inspecting the student in their various organization that they are attached to as this will improve the level of seriousness of the student to the program. Also the federal government in collaboration with the Industrial training Fund (ITF) to increase the student allowance for the program as this will encourage them in active participation.

CHAPTER FIVE

5.0 CONCLUSION

I found it interesting and I fully participated in it which in turn yields a successful result indeed it prepares me for future challenge in my chosen field. This SIWES program has turn out to be more interesting education due to the nature of the program itself.

5.1 RECOMMENDATION

The experience I gained during my SIWES program cannot be over emphasized I was practically oriented I humbly recommend that the SIWES program should be made compulsory for student of engineering, fields in order to gain more experience in their course of study.