

PRACTICAL MANUAL

# CARDIOVASCULAR, RENAL AND RESPIRATORY PHARMACOTHERAPEUTIC PHM 21003

**Bachelor of Pharmacy with Honours [B.Pharm (Hons)]**

**Name:**

## Matric No.: \_

**LIST OF PRACTICALS**

**CARDIOVASCULAR, RENAL & RESPIRATORY PHARMACOTHERAPEUTIC PHM 21003**

**SEMESTER 2, YEAR 2**

**No. Title Page**

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| **Practical 1** | **Effect of drugs on isolated frog heart** |
| **Objective** | Exercise 1: To observe the contraction of the isolated frog heart.  Exercise 2: To observe the effect of certain drugs on isolated frog heart.  Exercise 3: To interpret the observation and explain the basis.  Exercise 4: To identify cardiac stimulants and cardiac depressant and understand the rationale of use in therapy. |
| **Hard- and software** | YouTube video |
| **Procedure (s)** | 1. Open the Microsoft word file ‘Practical Manual’. 2. Open YouTube; **Experiment No-02: Effect of drugs on isolate frog heart.**   03\_Effect of drugs on isolated frog heart at https://www.youtube.com/watch?v=onMUFQHkdGw |
| **Student’s task** | 1. Answer the following Study Questions in complete sentences. 2. Define:    1. Inotropic    2. Chronotropic    3. Dromotropic 3. Explain the events occurring during:    1. Administration of propranolol and adrenaline.    2. Administration of propranolol and adrenaline with calcium chloride.    3. Administration of atropine and acetylcholine.    4. Administration of atropine and acetylcholine with potassium chloride. 4. In the experiment, how to measure force of contraction, cardiac tone and cardiac rhythm? 5. List cardiac stimulants and cardiac depressants and briefly explain the rationale for their use in therapy. 6. You may discuss your finding in groups. |
| **Report** | 1. Complete the Introduction, Material and methods, Results and Discussion, Answers to the Study Questions and References of the Practical Report 1. The report shall consist of: 2. **Introduction** (explain the scientific background and rationale for the experiment)   Write a paragraph stating about the theory of the contraction of the isolated frog heart and the effect  of certain drugs on isolated frog heart. What do you expect to learn from this experiment? Briefly  describe the techniques you will use to understand the concept of force of contraction, cardiac tone and  cardiac rhythm in this experiment.   1. **Material and methods** (give enough details)   Outline the working of the requirement and preparation for this experiment. Procedure describing step  by step of the work that was undertaken.   1. **Results and Discussion** (present in a clear or concise manner)   Represent all data appropriately and accurately. Interpret the findings of the experiment. Conclusion  should be based on the results of the experiment.   1. **Answer to the Study Questions**   Complete the student’s task and include in the report appropriately.   1. **References**   Please use relevant references to support your interpretation of the results. |
| **References** | <https://www.youtube.com/watch?v=onMUFQHkdGw> |
| **Notes** | Further reading:  https://www.youtube.com/results?search\_query=Experiment+No-02%3A+Effect+of+drugs+on+isolate+frog+heart |

### Name: Matric No.: Date: Practical Report 1: Effect of drugs on isolated frog heart

**Introduction**

**Material and methods**

**Results and Discussion**

**Answers to the Study Questions**

**References** List your reference (s)

**Notes** To what extent were you satisfied with the practice session?

### Very Dissatisfied

**Very Satisfied**

What is/are improvement (s) that you can suggest for this experiment?

1 2 3 4 5