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INSTRUMENT STANDARD OPERATING PROCEDURE MANUAL

College of Medicine



SAFETY AND LABORATORY COOMMITTEE, C.O.M, K.F.U.

Prepared by

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Document History

Document Section	Details of Amendments	Date	Modified by (Initials)
SOP	First Draft on SOP for the operation of the Model 215 PH -METER	21.4.2021	

1. OBJECTIVE

- ☐ The document describes the operation of **Model 215 PH –METER**
- ☐ This Denever instrument is a powerful, versatile and accurate instrument. electrochemistry meter.
- ☐ Operation temperature 10-30 C°, humidity less than 90 to RH, non condensation.
- ☐ Measure PH rang -2.00 to 20.000, +\ -2000.0, temperature -5 to 105.0 C°, Dimension L x W x H (10"x8.0"x3.5"

2. SCOPE

3. RESPONSIBILITIES

- ☐ It is the responsibility of designated personnel in Research lab to train staff and students on this procedure and to ensure adherence to this procedure under supervision.
- ☐ It is the responsibility of designated personnel (staff or Student) to follow the instructions of this procedure under supervision.
- ☐ Routine in R & D laboratories of the pharmaceutical and biotechnical industry.

4. REFERENCES

- ☐ **Model 215 PH -METER** operating instructions manual.

5. DEFINITIONS

- ☐ Electrode support arm.
- ☐ Connecting electrodes
- ☐ AC power
- ☐ BNC input A
- ☐ Ref A
- ☐ TEMP A
- ☐ USB
- ☐ RS232.
- ☐ Display screen.

6. SAFETY PRECAUTIONS

- ☐ Be sure that the voltage rating printed on the AC adapter is identical to the local voltage.
- ☐ Do not use the meter in a hazardous location
- ☐ Turn off the power completely by disconnecting the AC adapter from the balance.
- ☐ Do not contact the AC adapter with liquid.
- ☐ It has a liquid battery dispose according to local regulation.
- ☐ Avoid exposing the meter to excessive moisture.

7. PROCEDURE FOR OPERATING THE Apx -200 Series Analytical and Precision Balances

7.1. Turning on the instrument:

- ☐ Switch on the instrument (mains switch on).

7.2. Software Operation.

7.3. Steps of the Procedure

- ☐ Prepare a set of buffers or ion standards spanning the linear range of the electrode.
- ☐ Place the buffers or standards in a temperature bath at known temperature. •
- ☐ Place the meter into mV mode. •
- ☐ Measure and record mV readings of each pH or concentration, and repeat at several temperatures. •
- ☐ Plot the log of concentration or pH value versus mV reading. •
- ☐ Connect the points for each temperature
- ☐

7.4. Turning off the Instrument

- ☐ Remove the samples.
- ☐ Switch the unit off and disconnect from the mains
- ☐ Clean the surfaces .

7.5. Warning

Write any the warning in BOLD and RED FONT.

Safety and Laboratory Committee, COM, KFU