


## STANDARD OPERATING PROCEDURE OF CENTRIFUGE APPARATUS

 <p><b>B.L.D.E.A'S SSM COLLEGE OF PHARMACY AND RESEARCH CENTRE, VIJAYAPUR-586 103</b></p>	<b>DEPT: PHARMACEUTICS</b>	<b>SOP NO:</b>
	<b>AREA: PHARMACEUTICS LABORATORY</b>	<b>PAGE NO: 1 - 2</b>
	<b>SUBJECT: SOP OF CENTRIFUGE APPARATUS</b>	<b>EFFECTIVE DATE: 25/02/2022</b>
		<b>REVIEW PERIOD: 25/02/2023</b>

### **Purpose:**

To provide a procedure for the operating of Centrifuge Apparatus

### **Scope:**

Applicable to operation of Centrifuge Apparatus

### **References:**

Equipment Manual

### **Safety Issues and Precautions:**

- Wore Head cap, Mask, Hand gloves and other safety requirements during the performance of stated activity
- Please make the entry of Usage with require details in the Equipment log book
- Handle the Instrument properly with care

### **Procedure:**

- 1) Connect the power cord and press the power switch to ON.
- 2) Open the centrifuge lid /door by pressing the open switch on the panel and lifting it up (this will lock the lid /door in the open position).
- 3) Select an appropriate rotor for experiment.
- 4) Inspect the rotor and centrifuge tubes condition.
- 5) If any damage is observed, do not use the rotor or the centrifuge tubes.
- 6) Load the rotor with the centrifuge tubes; the opposing centrifuge tubes must be equally weighted. Be certain that the grooves under the rotor body are seated on the pin in the drive shaft of the centrifuge.

- 7) If a swinging bucket rotor is used all four bucket must be installed and filled during the run. Opposing loads should balance to within five grams.
- 8) Close the instrument door.
- 9) Set the speed dials to desired positions and Select the high, low or off break options.
- 10) Turn the timer to the desired setting and the centrifuge will start. As the run begins programmed acceleration control protects delicate gradients .when the rotor speed reaches about 200 rpm, full acceleration to the final set speed occurs. The digital display for rpm will indicate the rotor speed, and the countdown timer will show the time remaining in the run.
- 11) To interrupt and stop a run in progress turn the timer knob to the off position. the door interlock system will keep the lid/door latched until the rotor has virtually stopped spinning .(less than 40 rpm )
- 12) After the rotor has completely stopped spinning, open the lid/door by pressing the open switch on the control panel, and lift it up.
- 13) Always remove the rotor and unload the chambers following a run.
- 14) The rotor may be store in the centrifuge though good operating practise is to store the rotor outside of the centrifuge, in clean, controlled temperature environment.
- 15) Always clean the rotor with a non abrasive, mild detergent following a run.
- 16) It is important to note that all centrifuges have a critical speed at which vibration occurs, as the speed of the rotor increases past this critical speed, the vibration will cease. An imbalanced load intensifies the critical frequency. DO NOT OPERATE THE CENTRIFUGE AT THE OBSERVED CRITICAL FREQUENCY. If the vibration does not cease, stop the run and rebalance the load.

	<b>PREPARED BY</b>	<b>CHECKED BY</b>	<b>APPROVED BY</b>
<b>NAME</b>	Mr. A B. Walikar	Dr. Vinod. M	Dr. S C. Marapur
<b>DESIGNATION</b>	Asst. Professor	Asst. Professor	Professor & Head
<b>DEPARTMENT</b>	Pharmaceutics	Pharmaceutics	Pharmaceutics
<b>SIGNATURE &amp; DATE</b>			