

2021 Sec 4Ex PurePhy Prelim P3 Ans**Apparatus List****Section A****Q1**

- a source of tap water,
- a measuring cylinder 100 cm³,
- a polystyrene foam cup,
- a retort stand with a boss and a clamp,
- a thermometer,
- a plastic stirrer,
- a plastic mug with handle and
- a 100 g brass slotted mass with a loop of string.
- a supply of cold water for mass

Q2

- a 3V power supply,
- a switch,
- three identical filament lamps each in a holder,
- an ammeter (0 – 1 A) ,
- a voltmeter (0 – 3 V) ,
- connecting leads,
- a resistor, labelled X (1 Ω)

Section B**Q3**

- a 600 ml beaker,
- a piece of rectangular soft board,
- 4 pieces of optical pins,
- a piece of white A4 paper,
- a protractor,
- a 30-cm plastic ruler,
- Water.