

- ii) The overall performance has risen by close to 9%. The overall mean of 47.84 is the highest in the last four years.
- iii) The mean for the theory paper (232/1 and 232/2 combined) has gone down from 27.34 in 2003 to 25.31 in 2004.
- iv) The performance in the practical paper is much better than in the last three years with a mean of 22.54 as compared to 14.56, 17.06 and 16.15 in 2001, 2002 and 2003 respectively.

## 8.1 INDIVIDUAL QUESTION ANALYSIS

The following is a discussion on sampled questions in which candidates performed poorly. It is based on the observations made by examiners during marking.

### 8.1.1 PAPER 1 (232/1)

#### Question 2

The system in Figure 2 is in equilibrium at room temperature.  
The system is taken outside where the temperature is  $10^{\circ}\text{C}$  higher for sometime.

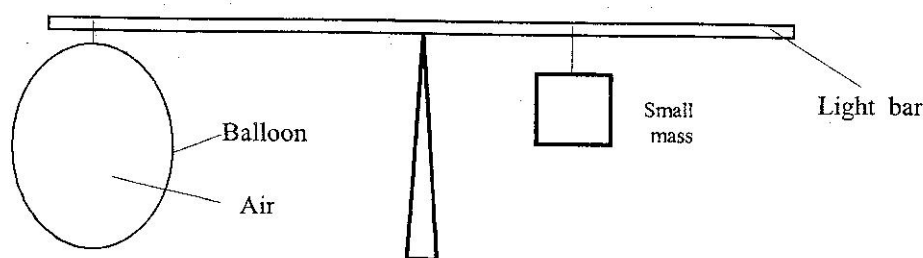


Figure 2

Explain why it tips to the right immediately it is returned to the room. (2 marks)

Candidates were required to realize the effect of temperature change on the volume of the balloon and hence on the upthrust due to the air in which it is submerged.

#### Weaknesses

Examiners found the following weaknesses amongst the candidates:

- i) Candidates gave wrong reasons for tipping over eg. more atmospheric pressure due to lower temperature etc.
- ii) Candidates failed to appreciate the effect of temperature change on the volume of the balloon.
- iii) Failure to recognize the existence of more upthrust for bigger volume.