Circular Motion Paper Questions
Jan 2002—Jan 2010 (old spec)

2 (a) A particle that moves uniformly in a circular path is accelerating yet moving at a constant speed.

Explain this statement by reference to the physical principles involved.

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Q2 Jun 2007

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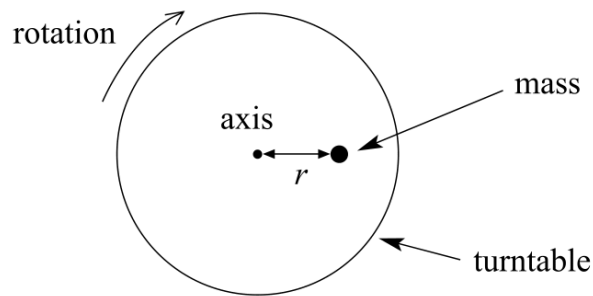
(3 marks)

(b) **Figure 2**

A 0.10 kg mass is to be placed on a horizontal turntable that is then rotated at a fixed rate of 78 revolutions per minute. The mass may be placed on the table at any distance, *r*, from the axis of rotation, as shown in **Figure 2**.

If the maximum frictional force between the mass and the turntable is 0.50 N, calculate the maximum value of the distance *r* at which the mass would stay on the turntable at this rate of rotation.

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(4 marks)