

**Question 3**

[10 Marks]

- a. Name of first set of activities – **Iterative Activities**

This consists of:

- **Monitoring**

The IT Dept has done this monitoring activity and derived the table on CPU usage.

- **Analysis**

Based on the data in the table, Programs J and P have exceptionally high CPU usage and should be shortlisted for tuning.

- **Tuning**

Programs J and P are tuned and tested.

- **Implementation**

Tested programs and implemented into production and cycle repeats.

Name of 2<sup>nd</sup> activity – **Demand Management**

For ABC, the current practice of a Thu weekly special offer causes a huge spike in user demand for the ABC e-services. One possible solution using Demand Management is to spread out the special offer to be twice a week (say, Tue and Thu) and split it into groceries on Tue and household products on Thu.

- b. Name of activity – **Modelling**

The chart could be produced by Trend Analysis / Analytical Modelling / Simulation Modelling / Baseline Modelling. *(any one of these answers is acceptable)*

- c. Current peak transaction rate = 90 transaction / min  
Projected peak transaction rate next year =  $90 * 1.22 = 110$  transaction / min  
From the chart, projected CPU usage = 75% which  $> 65\%$   
Recommend to increase CPU capacity.