Assignment Week 7

1) A conditional jump is recognized at the fetch stage using
   - Branch Target Buffer
   - Special Processing unit
   - Software Prediction
   - Operating System

   **Accepted Answers:**
   - Branch Target Buffer

2) When should the Branch Target Buffer be flushed?
   - Never
   - When there is a function call
   - When there is a process switch
   - All of the above

   **Accepted Answers:**
   - When there is a process switch

3) You cannot maintain a very large Content Addressable Memory because of
   - Low efficiency
   - Large cost for the CAM chip
   - Low memory access speed
   - Area and Power

   **Accepted Answers:**
   - Area and Power

4) A Trap is generated by
   - the running process
   - an external process

   **Accepted Answers:**
5) A printf or malloc takes the process to what state?  
- Running
- Ready
- Suspended
- Terminated

Accepted Answers:  
the running process

1 point

6) The characteristic of a static predictor is that
- The prediction is always taken
- The prediction is always not taken
- The prediction is always constant
- The prediction changes with each mis-prediction

Accepted Answers:  
Suspended

1 point

7) for(i=0; i<100; i++)
{  
Code;
}
The best static predictor for the above code will predict
- Always taken
- Always not taken
- No prediction
- None of the above

Accepted Answers:  
Always not taken

1 point

8) When does a dynamic 1-bit predictor change its prediction?
- With every misprediction
- With two mispredictions
- When there is a page fault
- Never

Accepted Answers:  
With every misprediction

1 point

9) At tournament predictor works by
- Choosing a random predictor
- changing the prediction for every mis-prediction
- choosing a predictor for every mis-prediction

Accepted Answers:  
With every misprediction

1 point
10: There is no need to use a k-bit predictor, k>2 because

- k is inversely proportional to efficiency
- Efficiency of k-bit predictors, k>2 is worse than 2-bit predictor
- Efficiency of k-bit predictors, k>2 is unpredictable
- A 2-bit predictor is as good as any k-bit predictor

Accepted Answers:
- A 2-bit predictor is as good as any k-bit predictor