V.S.B. ENGINEERING COLLEGE, KARUR.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2017 -2018(EVEN SEMESTER)

ASSIGNMENT QUESTIONS

CS6801 – MULTICORE ARCHITECTURES AND PROGRAMMING

Problem 1: Parallel Sorting Using MPI

Problem 2: Parallel Breadth-First Search Using OpenMP

Problem 3: Understanding the Impact of Multi-Core Architecture in Cluster Computing

CS6008 - HUMAN COMPUTER INTERACTION

1. What input and output devices would you use for the following systems? For each, compare and contrast alternatives, and if appropriate indicate why the conventional keyboard, mouse and c.r.t screen may be less suitable.
   a) portable word processor
   b) tourist information system
   c) tractor-mounted crop-spraying controller
   d) air traffic control system
   e) worldwide personal communications system
   f) digital cartographic system

2. List the guidelines that are provided and classify them in terms of the activity in the software life cycle to which they would most likely apply.

3. What influence does the social environment in which you work have on your interaction with the computer? What effect does the organization (commercial or academic) to which you belong have on the interaction?

4. Experiment with the 'back' button on different browsers, help systems, etc. Record systematically the behavior as you visit pages and use the 'back' button, and try to build a model (informal or formal) of the system. Pay particular attention to what happens if you revisit the same page during the same 'drill down' and the behavior in systems with multiple windows/frames. (Note that this behavior does differ dramatically even between different versions of the same web browser.)

5. Describe in detail about the Contextual Tools that are available in web design interface.

MG6088 - SOFTWARE PROJECT MANAGEMENT

1.Identity the actions that could prevent each of the following risks from materializing or could reduce the impact if it did occur.

- a key member of the programming team leaving
- a new version of the operating system being introduced which has errors in it.
- a disk containing copies of the most up to date version of the software under development being corrupted.
- system testing unearths more errors than were expected and takes longer than planned.
- the government changes the taxation rules which alter the way that VAT is to be calculated in an order processing system under development.

2. Compute the effort estimate for the following specification using intermediate COCOMO model, state any assumptions made clearly. The software is to be developed for a "communication Processing" function using microprocessors. The size of the embedded software is 10KLOC . The product complexity is rated to be very high, the programmer capability rated as low and the main storage constraint is high and the respective efforts multipliers can be taken 1.30, 1.17 and 1.06. All other cost drivers are assumed to take their normal values.

3. Draw an activity network using either activity-on-node or activity-on-arrow network conventions for each of the following projects:
- Redecorating a room
- Choosing and purchasing a desktop computer
- Organizing and carrying out a survey of users options of an information system

4. What is baseline in the context of software configuration? How do baselines get updated to form new baselines?

5. Three different mental obstacles to good decision making were identified in the text. faulty heuristics, escalation of commitment and information overload. What steps do you think can be taken to reduce the danger of each of these?