Assumptions:

1. While calculating the defects in requirement phase Assignment 1 is not considered. As it has included the defects of use cases too. So the defects in Assignment 2 are considered to calculate the number of defects and the productivity rate for defects.

2. Analysis task is not included in Assignment 2. So only Assignment 1 is considered while calculating the baseline for Analysis task of Assignment 3.

3. In Assignment 3 only the Design Document is to be considered and not Data Model. Hence while calculating the baseline only the Design Document values from both the previous assignments are considered.

Answers:

7. The earliest finish date of the project is 09/13/2016 if the project is scheduled to start on 04/04/2016.

8. No, the project cannot be finished in 2 months. As it can be seen from the earliest finish date above which is 5.5 months after the start date of the project. The resources in this Project are pooled from previous projects, and the pool takes precedence option is selected, it is not possible to make project work faster. Even if more resources are allocated it will not make the project to be finished in two months.

10. WBS:

WBS is a hierarchical and incremental decomposition of a project into phases. It provides a common framework for the natural development of the overall planning and it is the basis for dividing work into manageable increments from which technical, schedule, cost and labour cost reporting can be established.

Project 1 is divided into following tasks:

1. Project plan
2. Risk Mitigation and Contingency Plan
3. Requirement
4. Analysis
5. Design
6. Coding and Unit Testing
7. Testing
8. Documentation

Project 2 is divided into following tasks:

1. Project Plan
2. Requirements
3. Lab and Environment Setup
4. Analysis/Design Document
5. Data Model
6. Coding and Unit Test
7. Testing
8. Documentation

Project 3 is divided into following tasks:

1. Project Plan
2. Documented Software Development Process Updates
3. Requirement
4. Build the Development and Testing Lab Environment
5. Analysis
6. Design
7. Coding
8. Testing
9. Documentation

Network Diagram:

The Network Diagram is a graph depicting the sequence in which the project's tasks are to be completed by showing terminal elements and their dependencies. The WBS shows "part-whole" relation on contrast Network Diagram shows the "before-after relations".

The Network Diagrams for Projects 1, 2 and 3 can be found in Microsoft Project.

Resource Pool Utilization:

Resource Pool is a set of resources available to allocate in the project. The resources in the resource pool can be shared between many projects.

Project 1 has the resource pool, Project 2 and Project 3 are the sharer projects.

Project 3 shares the resources of both Project 1 and 2. Some of the resources of the Projects 1 and 2 are not used or others complete their tasks before start of the Project 3. So such resources can be used in Project 3 by avoiding conflicts.