ASSIGNMENT-1 (Unit-1 and Unit-2)

21BTCS23C05: Software Engineering and Agile Methodology

1) Define Software. Give example of software. How is it different from hardware? Give differences.
2) What are the characteristics of a good software? Describe in detail.
3) Explain: ***Hardware exhibits relatively high failure rate early in its time.***
4) Explain*: **Software doesn't "wear out".***
5) Define Software Engineering. What is the need of Software Engineering?
6) Why Software Engineering is called as a Layered Approach?
7) Define Software process framework and Umbrella activities in detail.
8) Explain Bathtub curve of hardware failure and Software failure curve in detail.
9) What is Software Process Models/SDLC? Name different Process models.
10) Explain the following process models. Draw SDLC diagram for each model. Also mention advantages and disadvantages.
    a. Waterfall Model (Linear Sequential Model)
    b. Incremental Process Model
    c. Prototyping Model
    d. The Spiral Model
    e. Rapid Application Development Model
    f. Agile Model (all agile process models)
11) Explain Agile process in detail. Give scenarios where agility will not work.
12) Explain Agility principles.
13) Explain Agile process models in detail.
14) Define Scrum. Explain lifecycle of Scrum. Explain Advantage and disadvantages of using Scrum framework,
15) Define Crystal methods. Explain properties of Crystal framework.
16) Explain advantages and limitations of Crystal framework.
17) Differentiate Traditional process models and Agile development model.