Q.1

1) Scrum master :-

Scrum master ensures that the team follows the scrum process. He organizes meetings, deals with challenges & bottleneck. He also interacts with product owner to formulate the product backlog for the next sprint.

Roles :-

1) Product owner

The scrum master's role in supporting product owners in the following aspects:

i) find & method to effictively manage the product backlog

ii) Help communicate the owner's wishlist to the project team.

iii) Arrange and optimize product backlog

iv) Organize scrum events as necessary
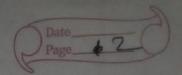
2) Organization :-

The scrum master's role in organization in the following aspects

i) lead and coach scrum adoption

ii) plan scrum implementation

iii) implement changes and steps to increase team's productivity.

Q.1]

1] Scrum master Responsibilities

1) Implement project management :-
The scrum master is responsible for creating and onboarding project teams, integrating them into the organization and providing a clear vision of product.

2) keep all parties on Track and informed :-
The scrum master hosts daily team meeting to get updates on the the progress of project, adress potential roadblock, and ensure that the project is on track.

3) Introduce Agile engineering Practises :-

To improve efficiency, scrum master encourage the use of continuos integration (CI) and automation. with CI tools, developers integrate chunks of code into central repository frequently.

Q. 1

2] waterfall model and spiral model both are used in software developement

Waterfall model	Spiral model
1) waterfall model works in sequential method	1) spiral model works in evolutionary method.
2) errors or risk are identified and rectified after the completion of stages	2) errors or risk are identified and rectified earlier.
3) it is adopted by customers	3) it is adopted by developers
4) applicable for small projects	4) used for large project
5) Requirments and early stage planning is necessary	5) Requirments and early stage planning is necessary if required
6) flexibility to change is difficult	6) flexibility to change is not difficult
7) high amount of risk	7) low amount of risk
8) comparatively	8) comparatively very expensive

Q.2]
1)

Requirment analysis :-

1) Requirment Research is conducted to clarify the issue to be addressed by automated framework.

In this step, there are two main operations problem comprehension or review and defination of specifications. The goal of problem analysis is to consider the issue and its content

2) Software design :-

The design process aims to prepare a response to the issue identified by the document of specifications. The first step is going from problem domain to the solution domain

3) Coding :-

Coding phase key objective is to convert the system's architecture into code in a given programming language The aim of coding should be to decrease the commitment to testing and servicing

4) Testing :-

Testing purpose is to find flaws in the software. The primary purpos is to identify software specifications, architecture, and coding errors

g. 2]

1) 5) Purpose :-

1) This project aims to have a comfortable atmosphere for holding books and library member's information

2) The key aim of this project is to use computers to maintain a basic circulation system

6) Scope :-

The paper only covers the criteria for the library management framework standards. There is no connection in this paper to any other part of library management system. This paper also list all of the external interfaces and dependancies.