SAD- Final questions - 2075

1. Compare and contrast between water fall and agile software development Model.

⇒ The differences between waterfall and agile software devlopment are :-

Agile Model	waterfall Model
1. suitable for small projects.	1. suitable for big projects.
2. clients are highly involved in the devlopment of the project.	2. client doesnot involve in the project.
3. Low cost of change.	3. High cost of change.
4. Light process and documentation.	4. Heavy process and documentation.
5. Main Roles: Architct, developer.	5. Main roles:- developer

2. what is feasibility study and why do we perform feasibility study? Discuss different types of feasilibity study.

→ Feasibility study is an analytical program through project manager determines the project success ratio and through feasibility study project manager able to see either project will useful for us or not and how much time, it will take to get completed.

Feasibility study is performed for various reasons:

(i) It allow companies to determine and ~~determine~~ organize all of necessary details to make a business work

(ii) It helps to identify logical problems related with buisness.

(iii) It helps to solve the problem which is occured in the project.

Types of Feasibility study:-

(i) Schedule Feasibility :-

It ensures that the project should be completed within given time constraint or schedule. It also varifies and validates wheather the deadlines of project are reasonable or not.

(ii) Technical Feasibility :-

Technical feasibility is a measure of the practically of a technical solution and the availability of technical resources and expertise. Normally it contains these issues:-

(a) are the proposed system & technology used practical enough?

(b) Do we currently posses the necessary technology?
(c) Do we have the necessary technical expertise?

(iii) Operational Feasibility :-
Operational feasibility is that measure of how well a solution meets the system requirements in order to solve the problems and take advantage from the opportunities identified during the scope defination and analysis activity.

(iv) Economic Feasibility :-
Economic feasibility is a measure to identify the financial benefits and costs related with the development project lots of people focus more on economic feasibility. The main of (EF) is to destimate the economic requirements of candidate system before investments funds are committed to proposal.

3. List any four-four examples of functional and non-functional requirements of university system. Also discuss the Requirement engineering process in bref.

⇒ The functional requirements of university system are as follows:-
(a) student
(b) Teacher
(c) Admin
(d) Administrator

The Non-functional requirement of university system are as follows:-

1. Availability
2. Security
3. Usability
4. Maintainability

Requirement engineering is the process of defining, documenting and maintaining the requirements. It consists following processes:-

1. Requirements Elicitation
2. Requirements specification
3. Requirements verification and validation
4. Requirements management

(1) Requirements Elicitation:-

It is related to the various ways to used to gain knowledge about the project domain and requirements. The various sources of domain knowledge include customers, business manuals, the existing software of same type etc. It is used for interviews, brainstorming, task analysis, prototyping etc.

(2) Requirements specification:-

This activity is used to produce formal software requirement models. All the requirements including the functional as well as the non-functional requirements and the constraints are specified by these models in totality. During specification, more knowledge about the problem may be required which can again trigger the elicitation process.

(3) Requirements verfication and validation :-
verification refers to the set of tasks that ensure that software correctly implements a specific function. validation refers to a different set of tasks that ensure that the software that has been built is traceable to customer requirements. It consists these steps :-

(i) no two requirements should conflict with each other.
(ii) The requirements should be complete in every sense
(iii) The requirements should be practically achievable.

(4) Requirements management :-
Requirement management is the process of analyzing, documenting, tracking, prioritizing and agreeing on the requirement and controlling the communication to relevant stakeholders. This stage takes care of the changing nature of requirements. It is the important part of requirements eaginnering process.

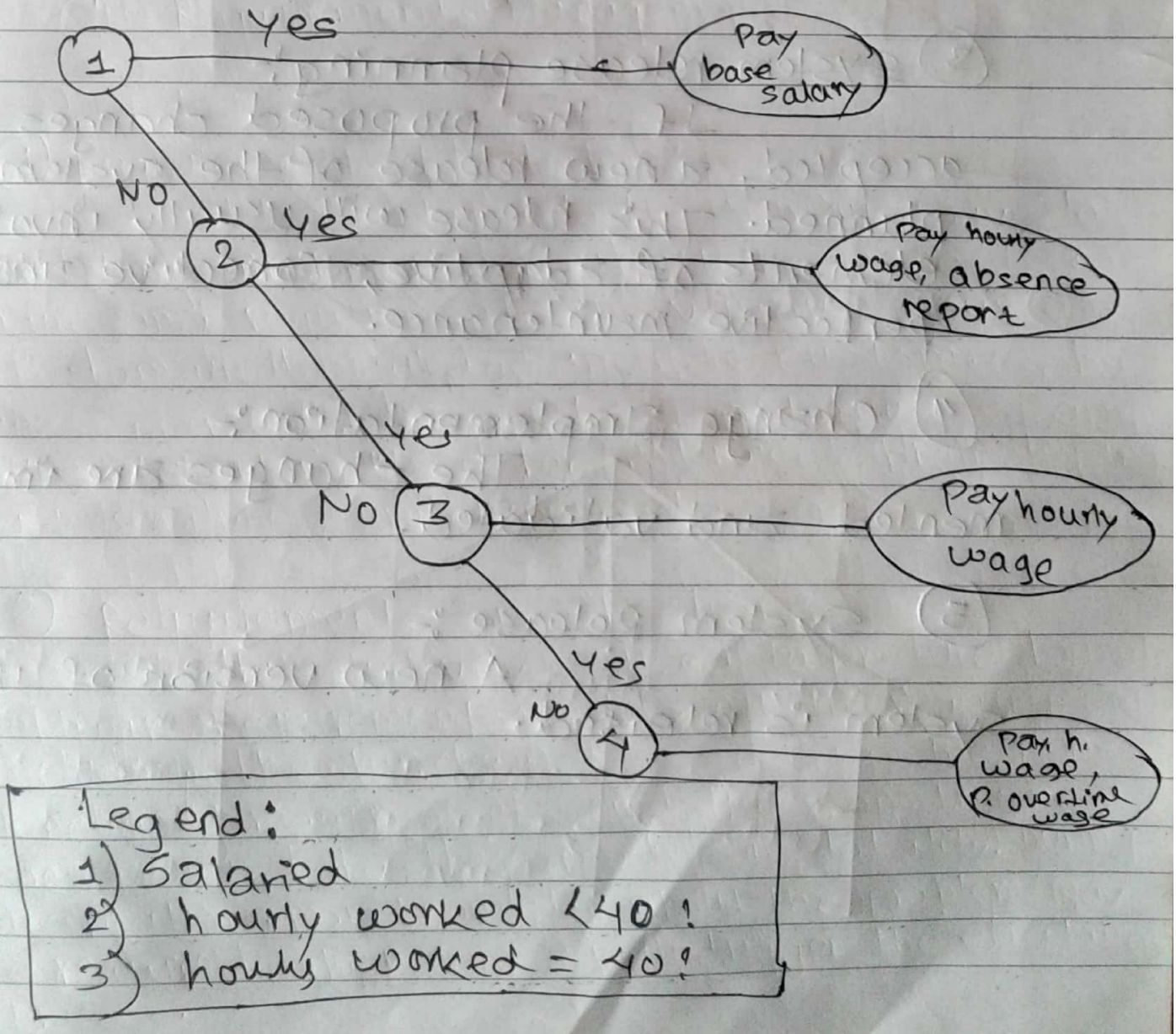
4. Define denision table and tree. Draw the decision tree of the following given case herewith. Create a decision tree to represent the logic of payroll system described in the following narrative. There are two types of employees; salaried and hourly. All salaried employees get basic salary, Hourly wage is calculated for hourly worker. for hourly

worker, if hours worked is less than 40 absence report is also produced and if it is greter then 40 overtime is also calculated.

=> Decision table is the representing complex processing logic in a tabular or a matrix form.

Decision tree is the graphical representation of the conditions, actions and rules found in a decision table. Tree and table provide the same results, but in different form.

2nd Part :-



5. Explain the process of software maintenance.

⇒ The process of changing a system after it has been delivered and is in use is called Software Maintenance.

Process of software Maintenance:

(1) Change Requests :- This process is triggered by a set of change requests from system users, management or customers.

(2) Impact Analysis :- The cost and impact of these changes are assessed.

(3) System release planning :-
If the proposed changes are accepted, a new release of the system is planned. This release will usually involve elements of adaptive, corrective and perfective maintenance.

(4) Change Implementation :-
The changes are implemented and validated.

(5) System Release :-
A new version of the system is released.

Class Diagram for an ATM system