

TALHA HAMEED

14526

BS (SE)

SECTION (A)

QUESTION NO:- 22.1 :-

Explain why testing can only detect the presence of errors not their absence?

ANSWER:-

Testing can detect only the presence of errors not their absence because the main goal of the testing is:

To observe the behavior of the particular software and to check whether it meet its requirement expectation or not.

Testing is a part of broader process of software verification and validation. It consists of set of activities, where the testers try to make the software behave anomalous in order to detect an anomaly in order to detect — to be later fixed. Testing cannot demonstrate the faults other than specified in every circumstances. It is always possible that a test have overlooked could discover further problems with the system.

Q. 2.2 :-

Define Unit testing.

ANSWER:-

UNIT TESTING:-

In Computer programming unit testing is a software testing method by which individual unit of source code, set of one or more computer modules program module together with associated control data, usage procedures and operating procedures are tested to determine whether they are fit for use.

* SYSTEM TESTING :-

System testing is a level of testing that validate the complete and fully integrate software product. The purpose of a system test is to evaluate the end-to-end system specification. Usually the software is only one element of a larger computer based system, ultimately the software is interfaced with other software/hardware system. System testing is actually a series of different test whose sole purpose is to exercise the full computer based system.

A WHITE BOX TESTING :-

white box testing also known as (clear box testing, open box testing, glass box testing, transparent box testing, code based testing or structural testing) is a software testing method in which the internal structure/design/implementation of the item being tested is known to the tester. The tester chooses input to exercise path through the code and determines appropriate output-programming know-how and the implementation knowledge is essential. white box testing beyond the user interface and into the nitty-gritty ~~are~~ of system.

* Black Box Testing:-

Black box

testing is define as testing technique in which functionally of the application under test (AUT) is tested without looking at the internal code structure implementation detail and knowledge of internal path of software. This type of testing is based entirely on software requirement and specification. In black box testing we just focus on input and output of the software system without bothering about internal knowledge of the software.

QUE NO:- 33-1

Briefly describe the three main types of software maintenance, why is it some times difficult to distinguish between them?

Ans:-TYPES OF SOFTWARE MAINTANANCE:-*- FAULT REPAIRS:-

Coding errors are usually relatively cheap to correct design errors are more expensive as they may involve rewriting several programme components Requirement errors are the most

expensive to repair because of the expensive system redesign which be necessary.

* ENVIRONMENTAL ADAPTATION:-

This type of maintenance is required when some aspect of the system environment such as hardware, the platform operating system, or other support software changes the applications system must be modified to adapt it to cope with these environmental changes.

* FUNCTIONALLY ADDITION:-

This type of maintenance is necessary

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when the system requirement change in response to organized or business change the scale of the changes ~~req~~ required to the software is often much greater than for the other types of maintenance.

why is difficult to differentiate between type of maintenance.

In practice, there is not a clear cut distinction between these type of maintenance when the system adapt to new environment then add functionally to take advantage of new environmental feature. Software faults are often

exposed because users use the system in unanticipated ways. These type of maintenance are to recognize but a different person some time give them different names.

Corrective maintenance is universally use to refer to maintenance for the fault repair.

Adaptive maintenance some time mean adapting to new environment and sometime means adapting the software to new requirement.

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Perfective maintenance some time mean perfecting the software by implementing new requirements in other case it mean maintaining the functionality of the system but improving its structure and performance.

QUE 3.2 :-

Factor that Effect Cost of system reengineering

ANS :-

Apart from extent of the re-engineering the principal factor that effect re-engineering cost are

* Cost of Re-engineering

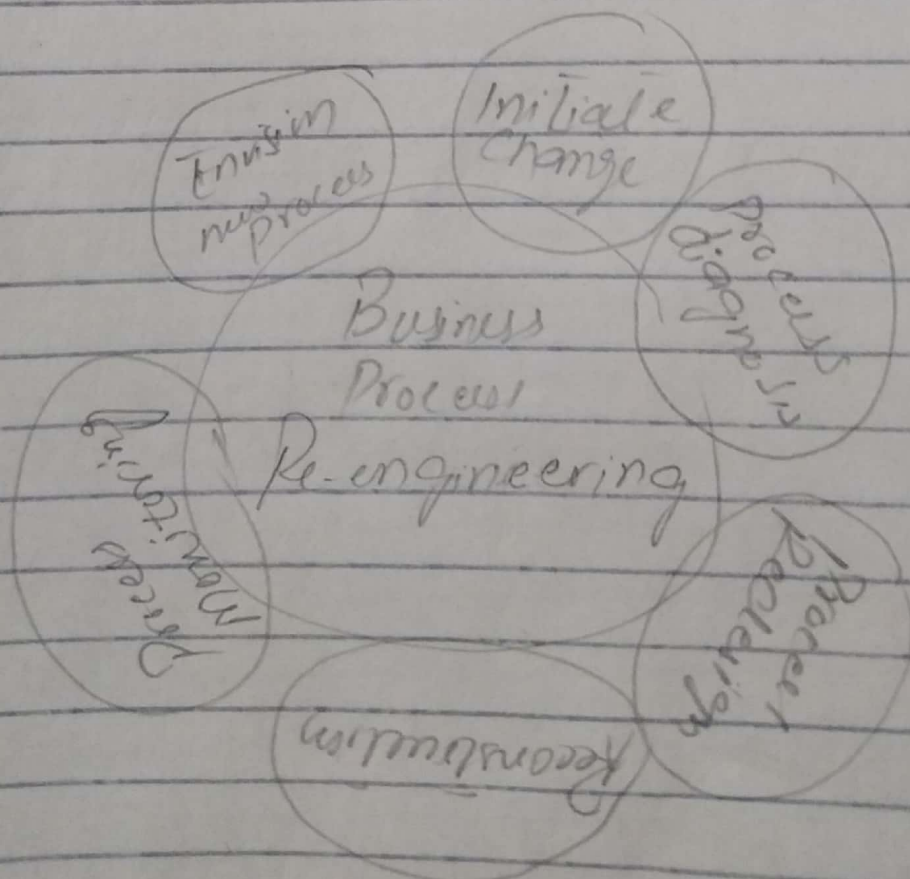
* The quality of the software to re-engineered. The lower of the quality of the software and its associated documentation (if any) the higher reengineering costs

RE-ENGINEERING PROCESS:

Proper execution of Business Process Reengineering can be game changer to any business. If properly handled, business process re-engineering can perform miracles on a failing or stagnating company increasing the profit and driving

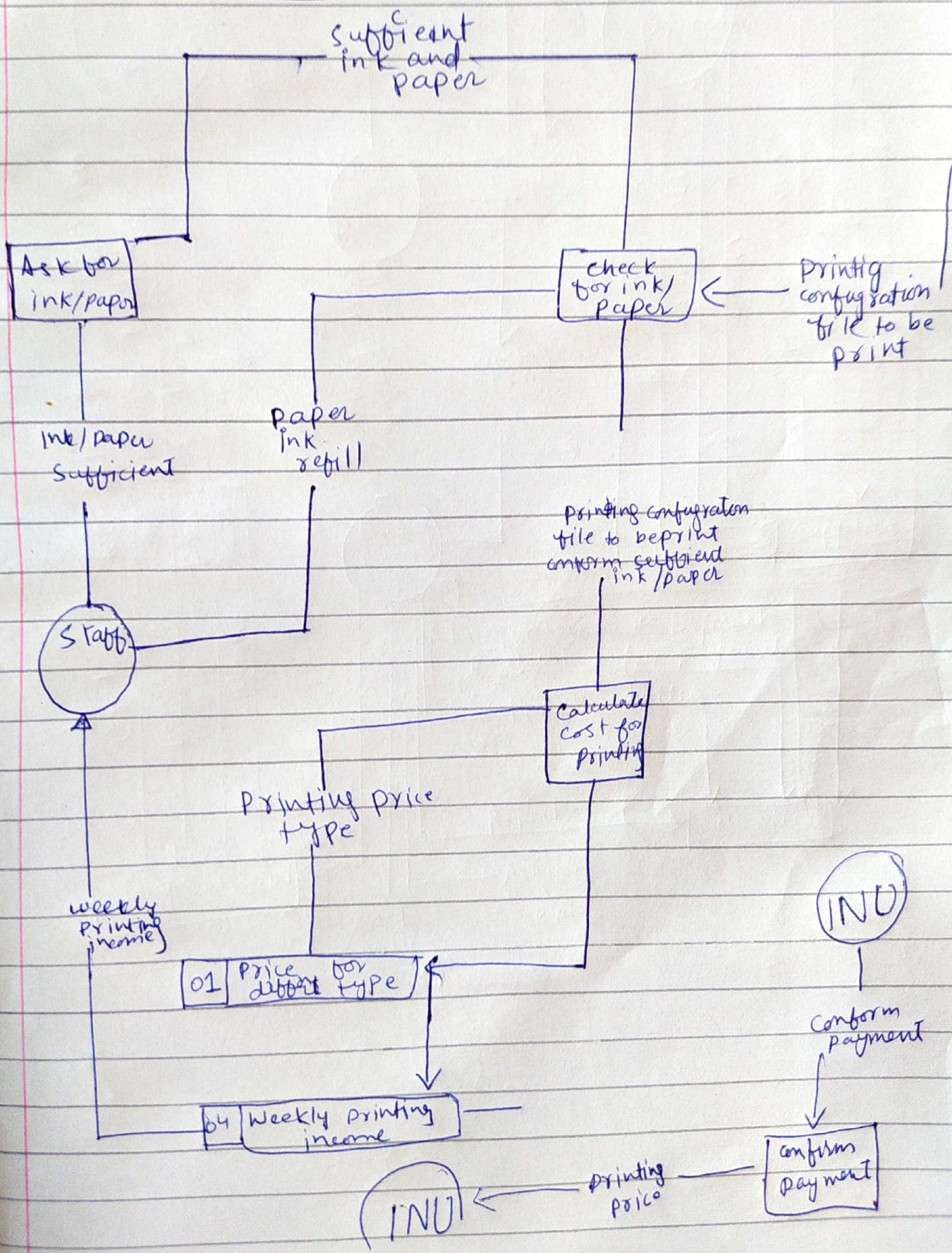
Growth. Business process reengineering however is not the easiest concept to grasp. It involves enforcing change in an organization tearing down some things people are used to and creating some thing new.

DIAGRAM

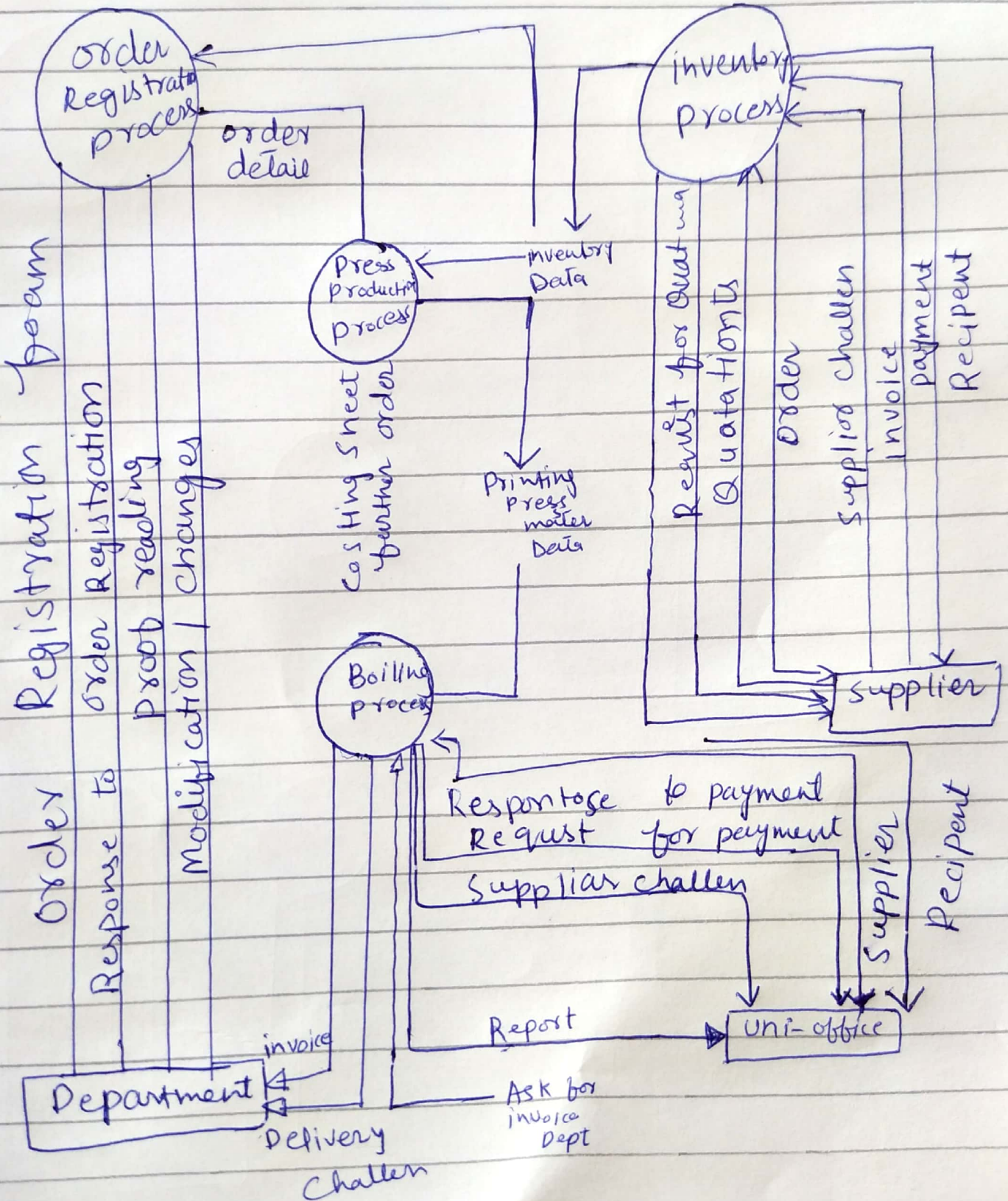


Question n.o 1 (i):-

Computer



Question 1 (ii)



Question 1 (iii) :-

