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Submitted
To
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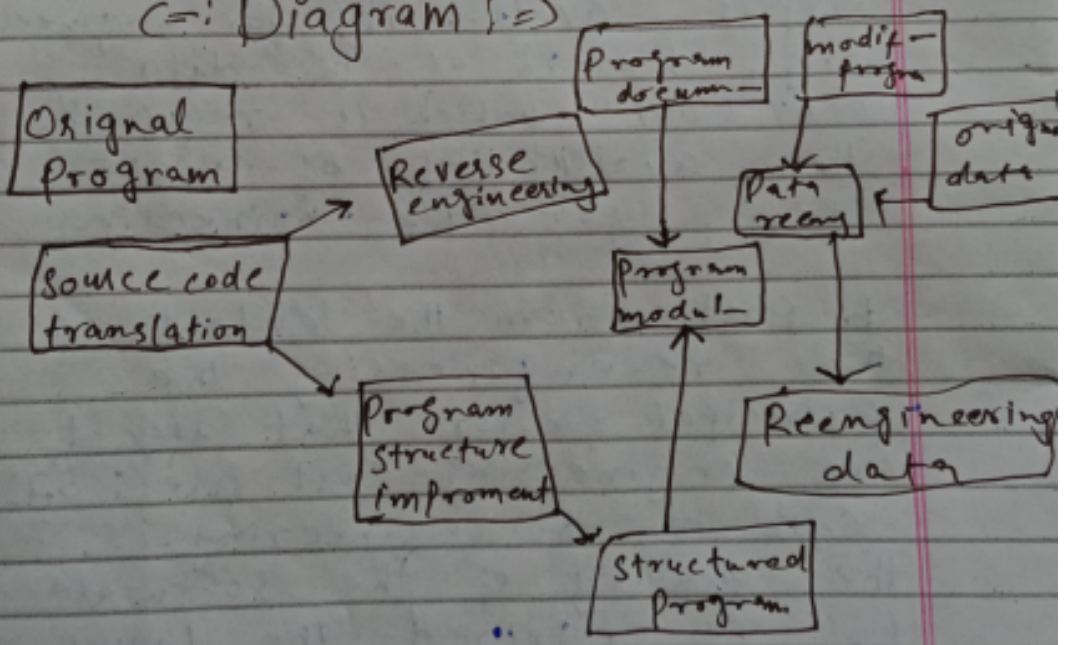
Section : A
BS(SE) IV

11

Software Re-engineering Process :-

Software Re-engineering is the process of updating software without affecting its function-ality. This process may be done by developing additional features on the software and required but considered to make the software experience better and more efficient.

(=: Diagram :=)



Question :- No :- 3
part :- No :- 2.

What are the principal factors that affect the costs of System reengineering? Also briefly explain the reengineering process with the help of diagram.

Answer :-

Re-Engineering cost factors:
The quality of the software to be reengineered. The Tool support availability for engineering. Extent of the data conversion which is required. The availability of expert staff for Re-engineering

A part from the extent of the re-engineering the principal factors that affect re-engineering cost are : 32.
Cost of Re-engineering .i.
The quality of the software to re-engnired. The Lower of quality of the software and its associated documentation (if any) the higher re-engineering costs.

Functionality addition :=>
This type of maintenance is necessary when the System requirements change in response to organizational or business change. The scale of the changes required to the software is often much greater than for the other types of maintance.

Why is it difficult to differentiate between the types of maintanance?
In practice, there is not a clear-cut distintion between these types of maintance, when the system adapts to new Environment, then add. functionality to take advantage of new Environmental features. Software faults are often exposed because Users use the system in Unanticipated ways. These types of maintenance are recognized but a differ person sometimes give them different names.

Question :- 03
Part :- 1st : 1

Briefly describe the three main types of Software maintenance. Why is it sometimes difficult to destinguish between them ?

① Fault Repairs:
Coding errors are usually relatively cheap to correct; design errors are more expensive as they may involve rewriting several program components. Requirements errors are the most expensive to repair because of the expensive system redesign which be necessary.

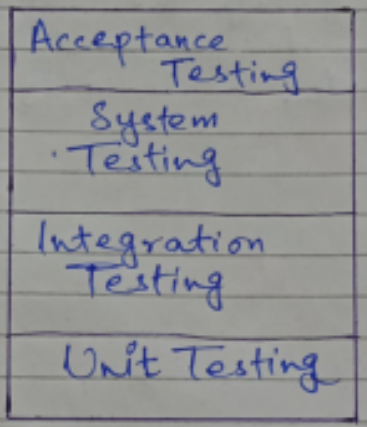
② Environmental adaptation:
This type of maintenance is required when some aspect of the system's environment such as the hardware, the platform operating system, or other support software changed the application system must be modified to adapt it to cope with these environmental changes.

White Box Testing :=>

White Box testing is testing of a Software Solution's internal structure, design, and coding. In this type of testing the code is visible to the tester. it focuses primary on verifying the flow of inputs and Outputs through the application, improving, design and Usability, Strengthening Security.

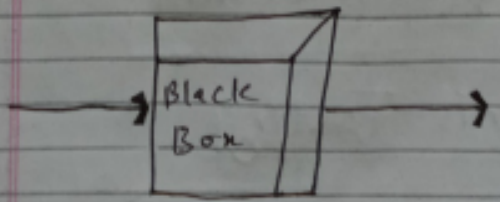
System testing :⇒

System is a level of software testing where a complete and Integrated software is tested. The purpose of this test is to evaluate of the system's compliance with the specified Requirements.



Black Box Testing :-

Black - box testing is a method of software testing that examines the functionality of an application with out peering into its Internal Structured or workings. This me - thod of test can be applied virtually to Every level of software testing: Unit, integration, System and acceptance



Question NO= 02
part :- 2nd : 02

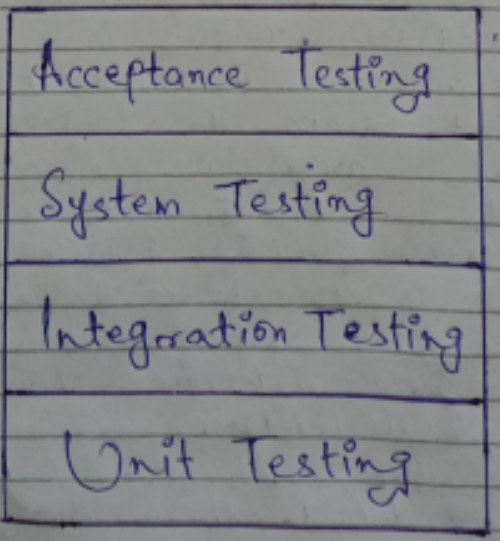
Define the following terms.
1, Unit Testing
2, System Box testing
3, Black Box testing
4, White Box testing.

:- Answer :-

Unit Testing :=>

Unit testing is defined as a type of software testing where Individual components of Software are tested.

Unit Testing of Software product is carried out during the development of an application. An Individual component may be either an Individual function or a procedure.



Question: No: 02

Part = 1st - 1

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

ANSWER:=>

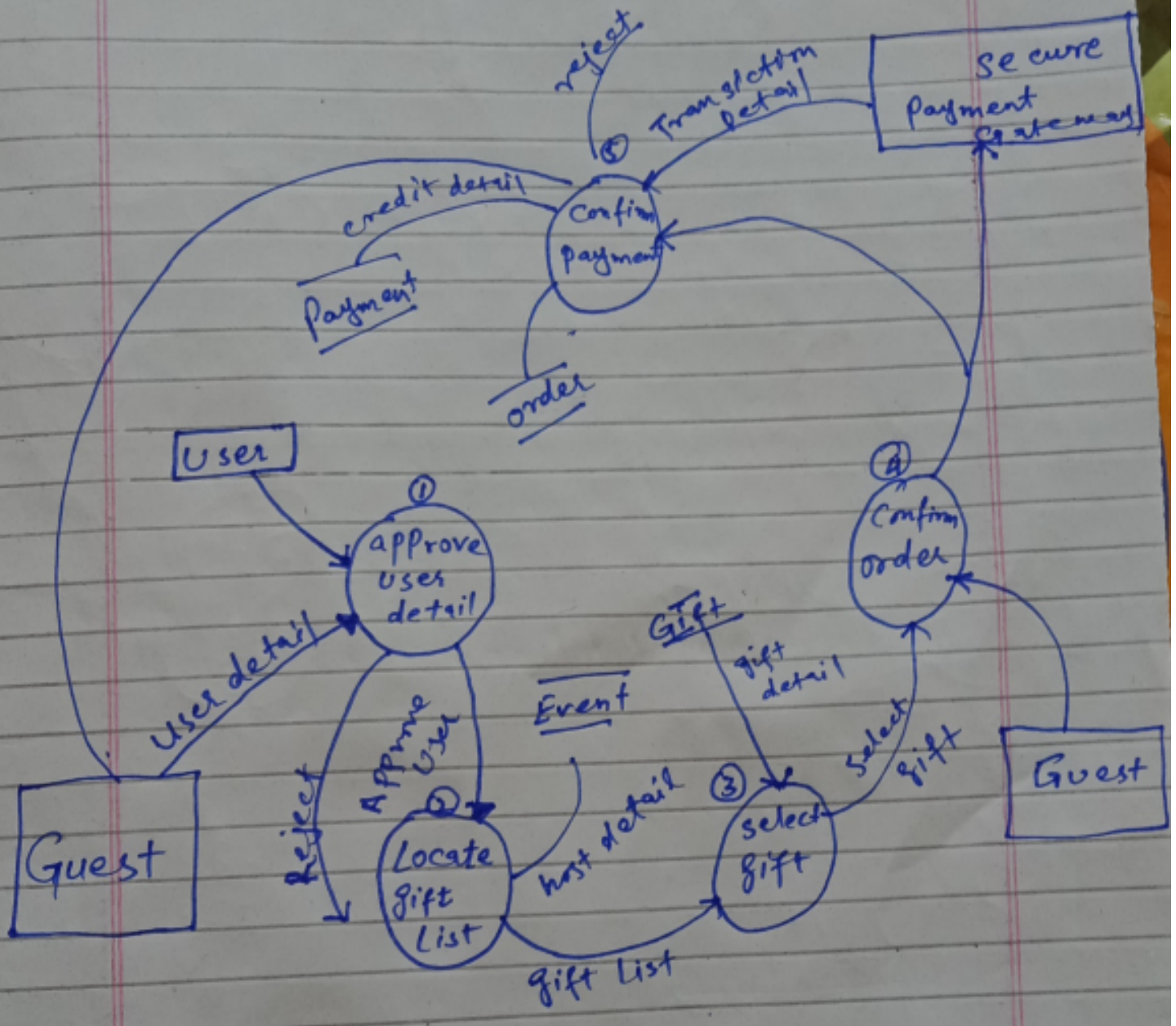
Testing can detect only the presence of errors, not their absence because the main goal of the testing is: To observe the behavior of the particular Software and to check whether it meet its requirment expectation or not. Testing is a part of broader proces of Software verification and validation.

The goal of Software testing is to observe the Software behavior to meets its requirement —— expectation. Testing is a set of activities where the tester try to make the Software behave anamalous in order detect a defect or anomaly to be later fix. The goal of Software testing is to observe the error in a particular critical areas such as parameter, interface, Shared memory procedural interface, and message passing through which component testing can't detect these error.

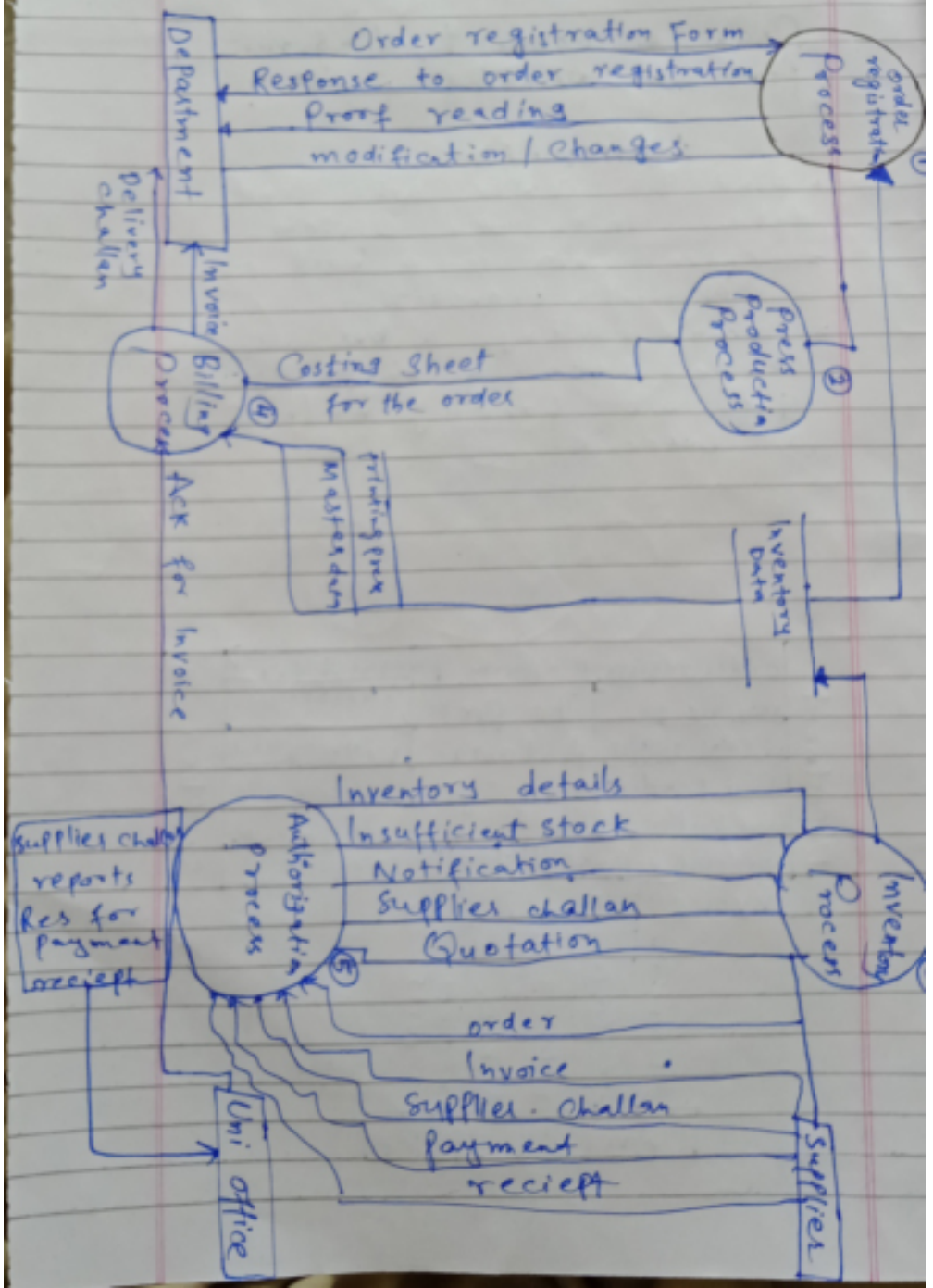
(3)

Question :- No :- 03

Part :- 02



Question : 1
Part : 3



Question No: 1
part: 1st: 1

Draw a content diagram for the printing press?

-: Answer :-

* Find the people who send data into the system.
= often data is a part of a physical transaction
= when handing a bar of choclate to a shopkeeper you are handling him/her a barcode.