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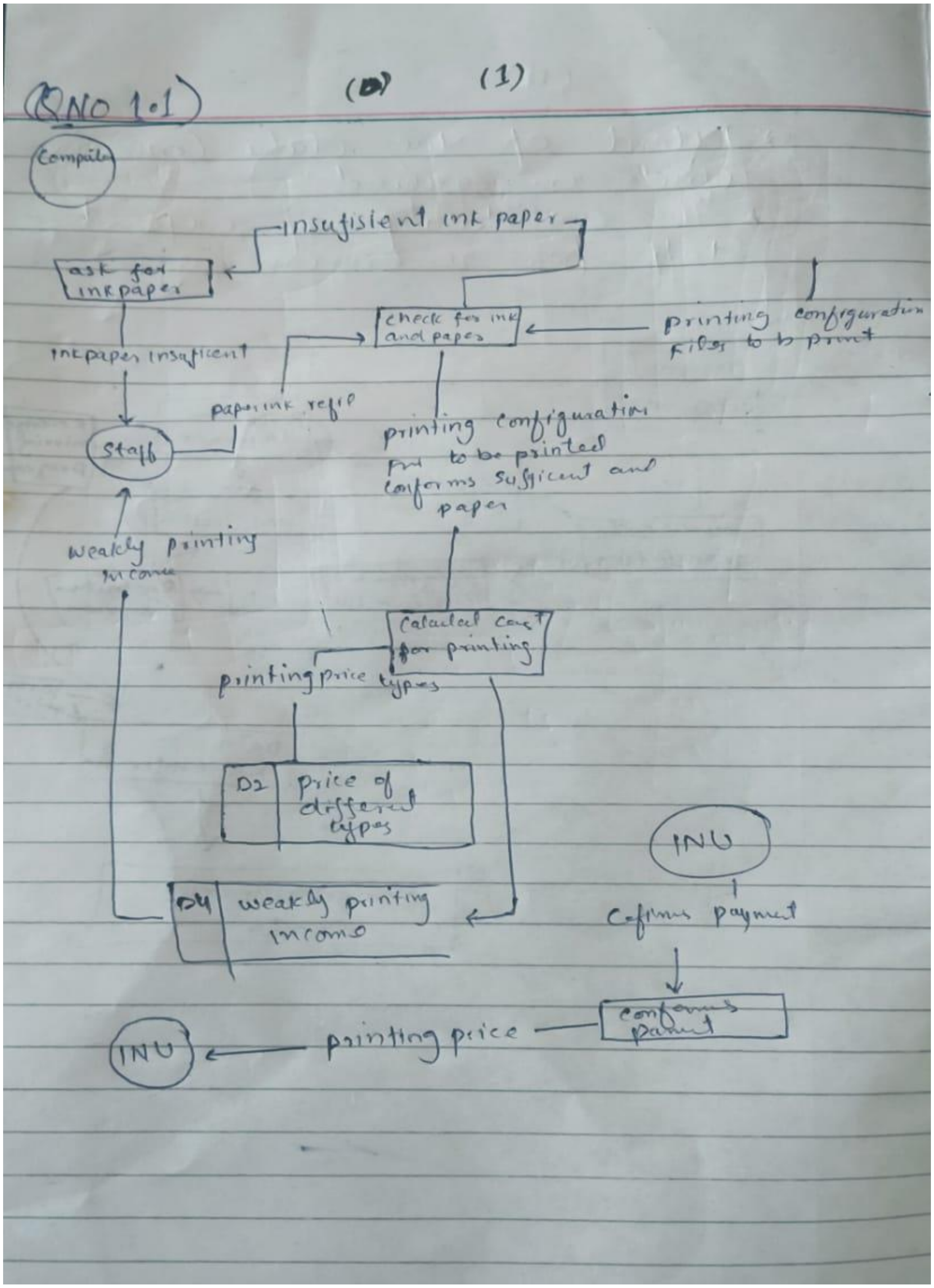
CLASS: BS (SE) 4th

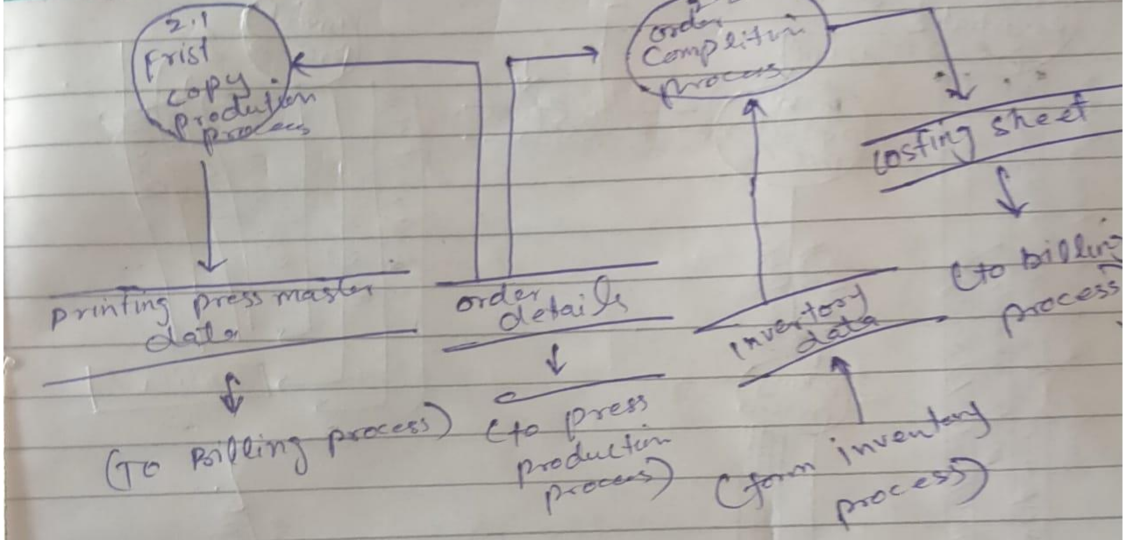
SECTION: B

SUB: SOFTWARE ENGINEERING

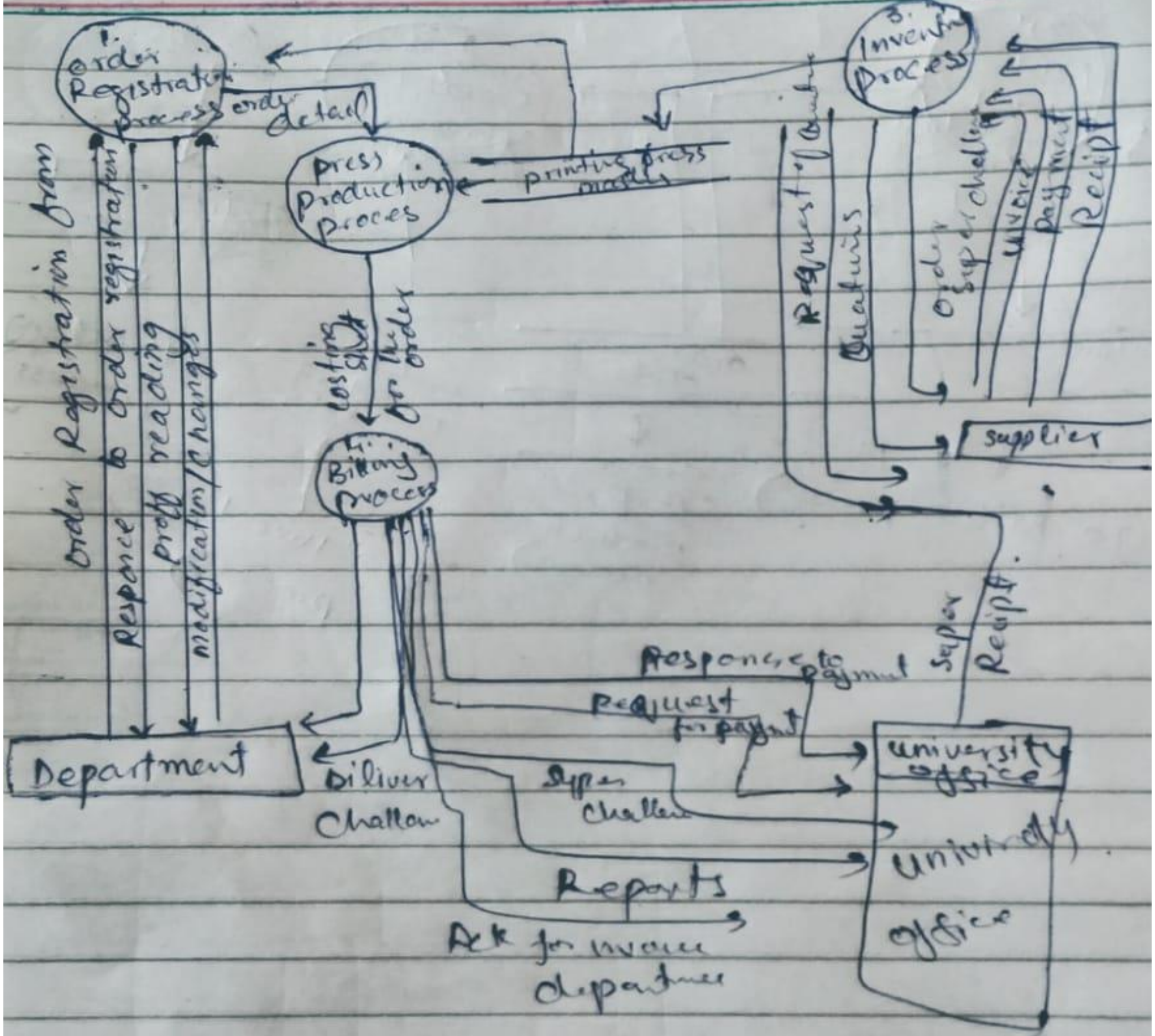


Q 1.3 :-

(2)


2.1
Frist copy Produstion process
2.2
order Completion process
Costing sheet
(to billing process)
printing press master data
order details
(to press production process)
inventory data
(form inventory process)
(To Billing process)

Q1:2: (3)


1. order Registration process
order detail
2. press production proces
printing press models
3. Inventry process
4. Billing process
costing sheet for the order
order Registration from
Responce to order registration
proff reading
modification/changes
Request of quotation
Quatations
order
Supplier challan
Invoice
Payment
Receipt
supplier
Department
Diliver Challan
Responce to payment
Request for payment
Supper Challan
Reports
Ack for invoice department
supper Receipt.
university office
university office

QNO2.1 Explain why testing Can only detect the presence of the ~~fear~~ errors, not Their absence?

Ans: * The goal of software testing is to observe The software behavior to meet its requirment expecation.

* • Testing is a set of activities where the tester try to make The Software behave anomalous in order to detect a defect or anomaly to be later fix.

QNO2.2 Define The following terms.

Ans. 1. UNIT TESTING:-

* In Computer programming, unit method is a software testing method by which individual units of source Code Sets of one or more Computer programme modules together with assoBicated Control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use.
* The most 'micro' scale of testing.
* Tests done on particular functions or code models.
* Require Knowledges of the internal programme Designed and code.
* Done by programme (not by testers)

bjectives	* TO test The function of the programme or unit of code Such as a program or module. * TO test internal logic. * TO verify internal design. * TO test path and conditions coverag * TO test exception Conditions and error handling.
When	* After models are Coded.
input	• internal application Design. • Master test plan. • Unit test plan.
output	• Unit test Report.
Who	• Devolper
Method	• White box testing techniques.
Tools	• Debug • Re- structure • Code analyzers • path/ Statment Coverage tools
Education	* Testing Methodology * Effective use of tools.

2: SYSTEM TESTING:-

System testing is testing conducted on a compleate integrated system to evaluate the system's Compliance with it specified requirements. System testing takes, as its input all of the integrated components that have passed integration testing.

Objectives	* TO verify the system coponents perform Control function. * To perform intersystem test * TO demonestrate that the system performs both functionaly and operationaly as specified. * TO perform appropriated type of tests relating to trasaction flow, installition, Relibility, regression, etc.
When	* After integration testing.
input	* Detailed Requirments and External Application Design. * master test plan. * System Test plan.
out put	* System Test report.
Who	* Devolopment team and users
Method	* probleme/ Configuration managment

Tools	• Depends
Education	• Testing methodology.

3: BLACK BOX TESTING:-

Black box testing is a method of software testing that examin the functionality of an application with out peering into its internal structures and workings. This method of test can be applied virtually to every level of software testing: unit, Integration, system and exceptings.

- No knowledge of internal design or code required.
- tests are based on requirment and functionality.
- Not based on any knowledge of internal design or code.
- Cover all combined parts of a system
- Tests or data driven (tests are based on putting some data to check the systems)
- it uncover:
  - → incorect or missing function
  - → interface error
  - → Errors in data structures or external data base access
  - → performance errors

→ Initialization and termination errors

TYPE OF Black Box Testing:-

- Functional Testing
- System testing
- End-to-end testing.
- sanity testing.
- Regration testing.
- Exceptance ~~tes~~testing.
- Code testing.
- install / un install testing
- Recovery testing
- Compatibility testing
- Exploratory testing
- Comparison testing
- alpha testing
- beta testing
- mutation testing

4: WHITE BOX TESTING:-

- It Based on knowledge of internal logic of an applications code.
- It Based on Coverage of code Statments, Branches, paths, Conditions.
- tests are logic driven
- it ensures
  - → All independent paths whith in module have been excercised at least ones
  - → Excerise are logical ~~designs~~ decisions their true and falls sides

→ Execute all loops at their boundries and with in their operational bonds.

→ Exercise internal data structures to ensure their validity.

QNO3.1 Brefily describe the Three main types of software maintenance. Why is it Some times dificult to destingush between them.

Ans 1. Fault Reparis:-

Coding error are usually relatiively Cheap to correct, desigan errors are more expensive as the may invole re writing sevral programe components. requirment errors are the most enpensive to repair because of the enpensive systems re designd which be necessary.

2. Enviromental addaptation:-

this type of maintemance is required when Some aspect of the systems Environment such as the hardware, the platform operating system, or other supports software changes the application system must be modefied to adopt it to copy with these enviromental change.

3. Functionility addations:-

this type of maintenance is necessary when the System reqirement changes in responce to organizitional or businus change. the scale of the change Reqaured to the software is upon much greather then for the other type of maintenee.

they are sometimes difficult to distanguish because the Same set are changed make our all there type of maintenance for example a reported fault is the system may be reparied by upgrading some other software and then addopting system to use this new version (Corrective + addaptive). and they are upon given different names and also because faults that arise with in a system can may be have overlapping maintenance required.

Q NO3.2 What are the principal factors that effect the cost of system re-engineering? also breifly explain the re-engineering process with the help of digram?

Ans the principal factors That effect the Cost of System re-engineering are the qualatity of the Software to be re-engineed the lower qualaty of the sofware and its assosicated documention

Re-engineering Process.

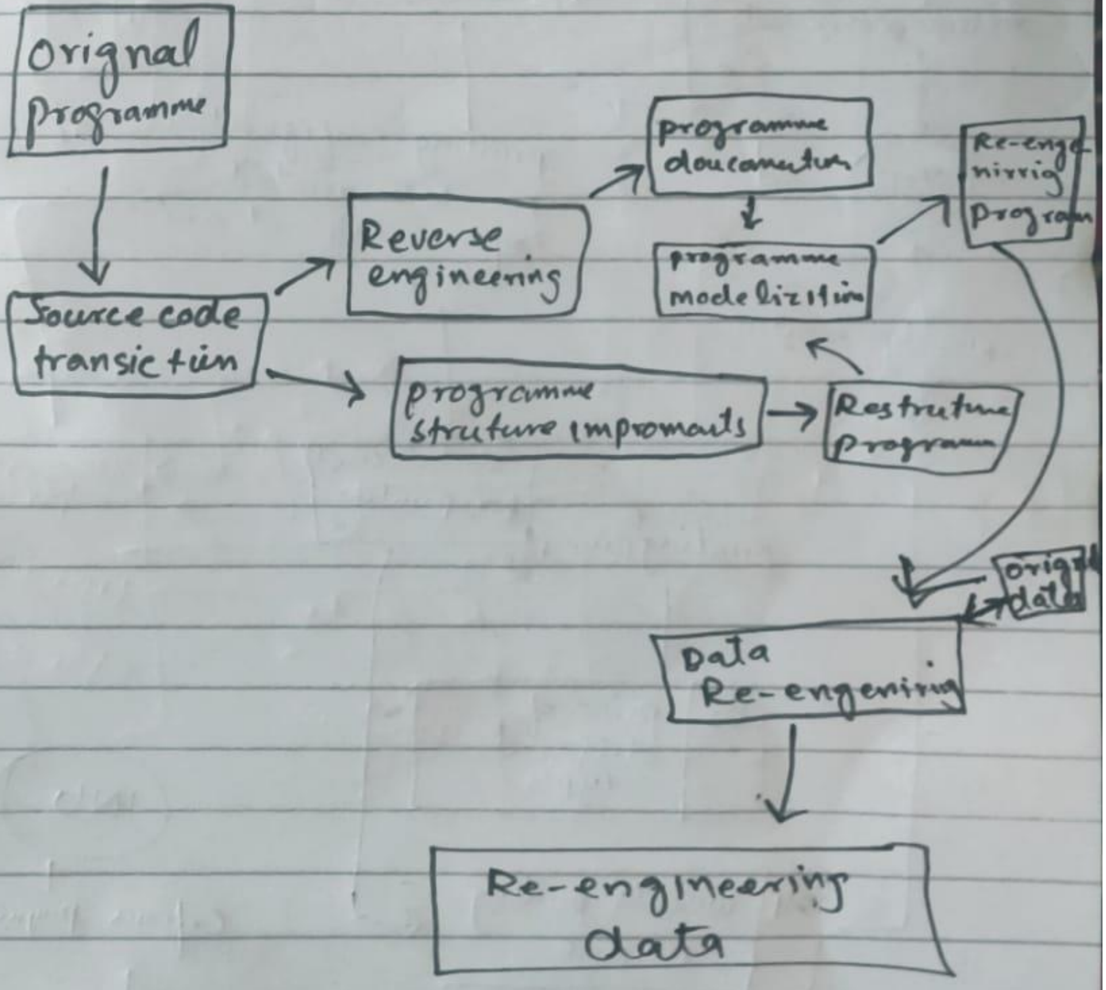
Re-engineering is the examination and alternation of the System to Reconstitute it in a few form the principal of Re-engineering when applied to The software devolpment process is Called software re-engineering. it effect positively at Software Cost & qualatiy, service to the Customer and speed of dilivery. Software Re-engineering we are improving the Software to make it more efficivent and effective.

Re-engineering Cost factors.

- The qualatiy of the sofware to be re-engineered
- The tool support avilibility for engineering.

* Extent of the data Conversion which is reqjuired.

* the avilibility of expert staff for re-engineering.



THE END

THANKS