Ans 1 (a) constructive cost estimation model

(b) function point → It's a unit of measurement to express the amount of business functionality.

feature point → A function point extension called feature points, is a superset of the function point measure that can be applied to systems and engineering software applications.

(c) S/w Requirement specification is a document that capture complete description about the system.

(d) unit testing	Integration Testing
• It is tested at the unit level	• In this testing unit tested modules are integrated to form a system.
• Unit testing can be performed anytime but always before integration testing.	

⑥ Verification	Validation
• It is high level activity	• It is low level activity
• It is human based checked of document and files	• It is computer based execution of program.

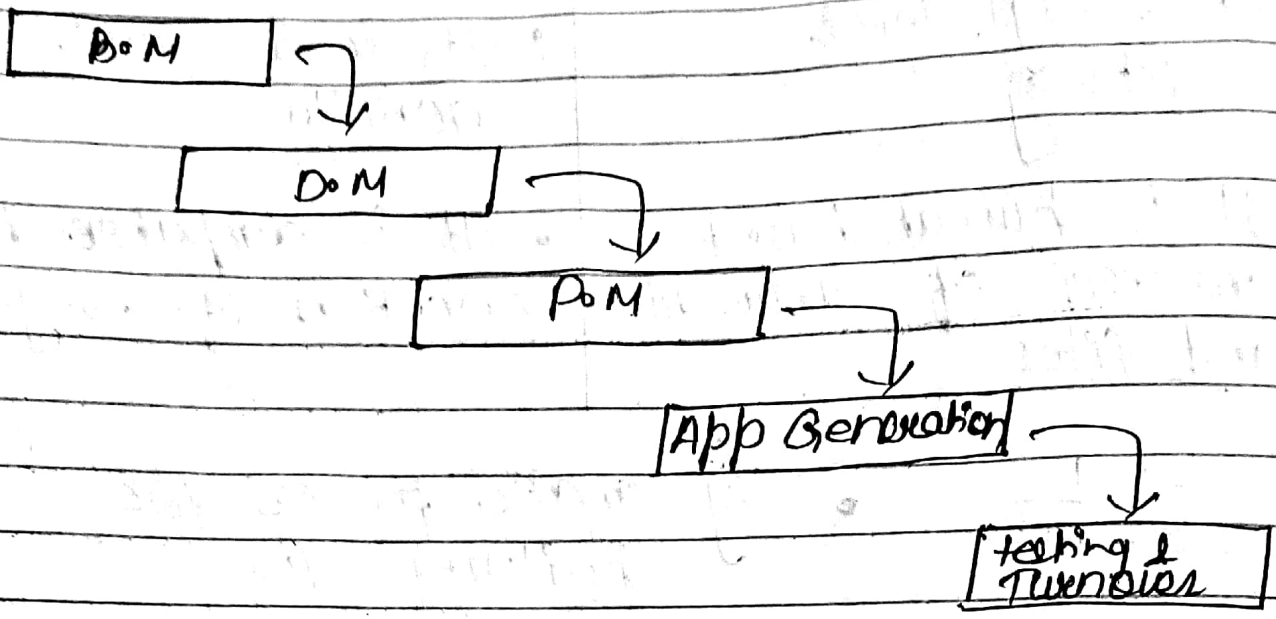
② SDLC

- systematic process for building s/w
- ensure quality & correctness of the s/w built.
- Aim → produce high-quality s/w

RAD model

- It is also called as Rapid application development model.
- Deals with required information and generated information.
- It's an incremental s/w development process that has extremely short

development of time.



Q no 3 for organic mode

$a_1 = 2.4$ $b_1 = 2.5$

$a_2 = 1.05$ $b_2 = 0.38$

KLOC = 100000 lines of code = 100

∵ effort = $a_1 (KLOC)^{a_2}$ PM

= $2.4(100)^{1.05}$ PM = 302.142 PM

Time of s/w development,

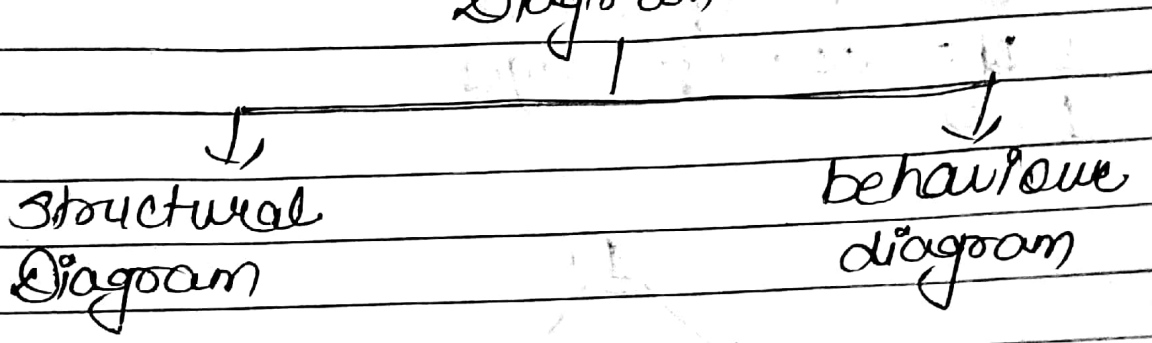
$T_{dev} = b_1 (effort)^{b_2}$ month

= $2.5 \times (302.14)^{0.38}$

= 21.89 month

Ans 4 UML → unified modelling languages

- It works is to linked with object oriented design and analysis makes the use of elements & forms & associations b/w them to form diagram



Ans 5 Software Crisis

- The term for the difficulty of writing useful and efficient computer programs in required time.

major causes

1. Not enough development team
2. software inefficient
3. low quality of software
4. project running out of time i.e. deadline crossed.

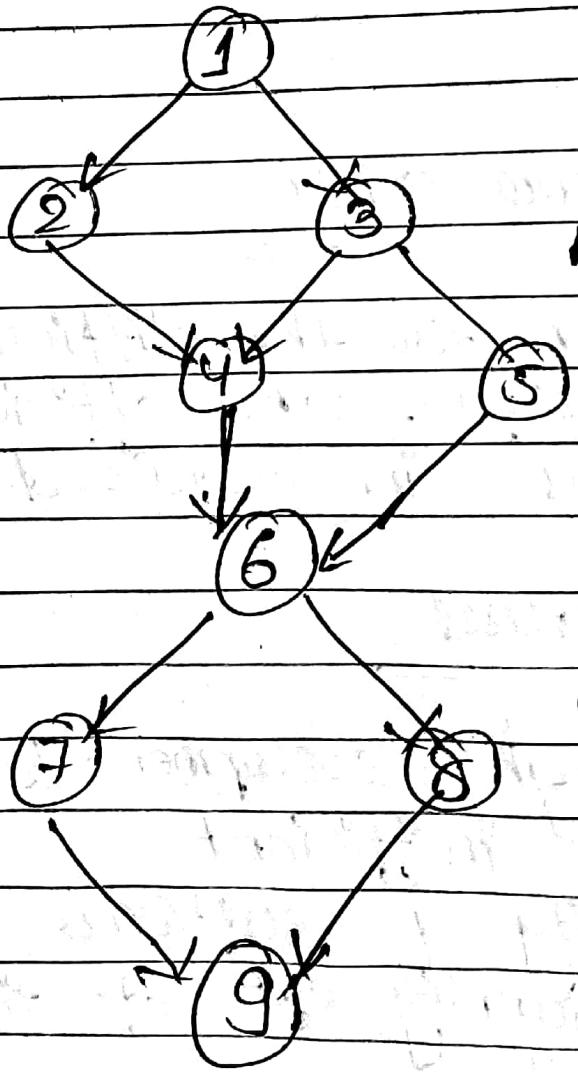
Cyclomatic complexity

- It is a software matrix, which is used to measure the complexity of a program.

Basic formula = $\boxed{C.C = E-N+2P}$

N = no. of nodes
E = no. of edges

for eg



R5

C.C = E-N+2P
= 12-9+2
= 3+2 = 5
= 5 Ans