

MERIT PAPER – 02 SCHEME

- 1) i
- 2) i
- 3) i
- 4) iii
- 5) ii
- 6) a) i) Slotted Aloha
ii) Parallel Computing
iii) EPROM
iv) Address Bus
- 7) i) Yes, I agree with the decision made by Sandeepa and the team to use Agile scrum as the software development methodology. Given the complex requirements and the need for a working software within a few weeks, Agile scrum provides an iterative and incremental approach that allows for flexibility and adaptability to changes in requirements. It also involves collaboration and regular feedback from the client, which can help ensure that the final product meets the client's needs.
ii) integration testing, which involves testing the interface between different components or modules of the software.
iii) Phased deployment method
iv) Operational feasibility
- 8) a) i) First Address- 192.248.154.0
Last Address- 192.248.154.255
ii) 255.255.255.128
iii) No. of Borrowed bits- $2^2=4$ subnets
No. of Remaining Bits- $2^6=64$ hosts
6 bits

iv)

SUBNET NUMBER	NETWORK ADDRESS	SUBNET MASK
S01	192.248.154.0	255.255.255.192
S02	192.248.154.64	255.255.255.192
S03	192.248.154.128	255.255.255.192
S04	192.248.154.192	255.255.255.192

FIRST USABLE IP ADDRESS	LAST USABLE IP ADDRESS	BROADCAST ADDRESS
192.248.154.1	192.248.154.62	192.248.154.63
192.248.154.65	192.248.154.126	192.248.154.127
192.248.154.129	192.248.154.190	192.248.154.191
192.248.154.193	192.248.154.254	192.248.154.255

b) Problem with DNS resolution

Issue could be related to firewall or port forwarding settings

9) i) This table is not in 1NF because it has multivalued.

1NF does not contain multivalued only ONF contain multivalued

ii) Branch (BranchNo,BranchAddress)

Branch_TelNo (BranchNo,TelNo)

iii) Branch Table → primary key – BranchNo

Branch_TelNo Table → composite primary key –

BranchNo,TeleNo

iv) SELECT BranchAddress , TeleNo

FROM Branch

WHERE BranchNo = 'B001';