Hameed Khan
ID. 15066
DCN. Theory
Assi 01
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Q1.
(a)

Internet Draft:

Internet Draft is a series of working documents published by the IETF. Typically, they are drafts for RFCs, but may be other works in progress not intended for publication as RFCs. During the development of a specification, draft versions of the document are made available for informal review and comment by placing them in the IETF's Internet-Drafts directory.

Q1.
(b)

Proposed Standard	Draft Standard	Standard
1) The entry-level maturity for the standards track is "Proposed Standard". A specific action by the IESG is required to move a specification onto the standards track at the "Proposed Standard" level	A specification from which at least two independent and interoperable implementations from different code bases have been developed, and for which sufficient successful operational experience has been obtained, may be Elevated to the "Draft Standard" level.	A specification for which significant implementation and successful operational experience has been obtained may be elevated to the Internet Standard level.
2) A Proposed Standard specification is generally stable, has resolved known design choices, is believed to be well-understood, has received significant community review, and appears to enjoy enough community interest to be considered valuable.	A Draft Standard must be well-understood and known to be quite stable, both in its semantics and as a basis for developing an implementation.	An Internet Standard (which may simply be referred to as a Standard) is characterized by a high degree of technical maturity and by a generally held belief that the specified protocol or

|		service provides significant benefit to the Internet community.
3) Further experience might result in a change or even retraction of the specification before it advances.	A Draft Standard is normally considered to be a final specification, and changes are likely to be made only to solve specific problems encountered.	All specifications unconditionally accepted.

Q2.

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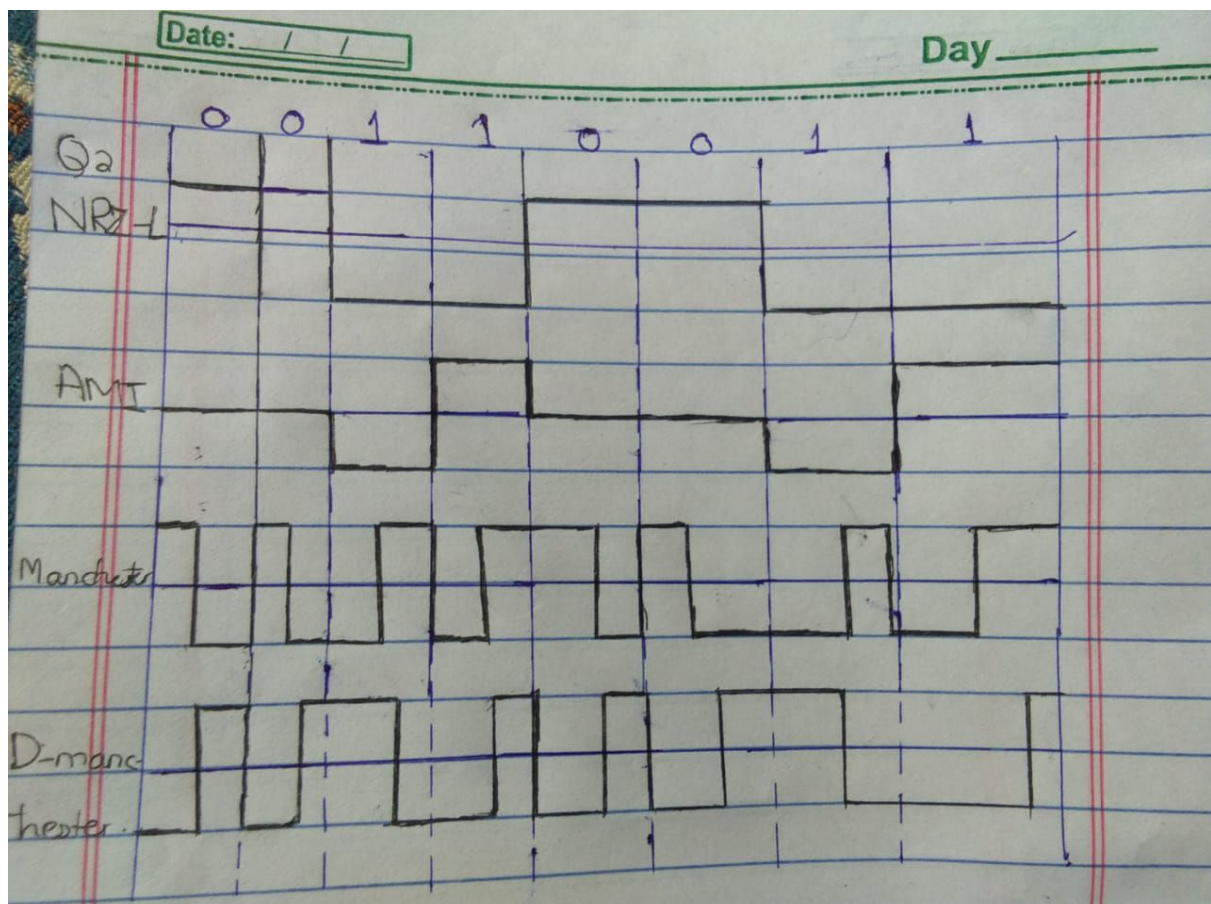
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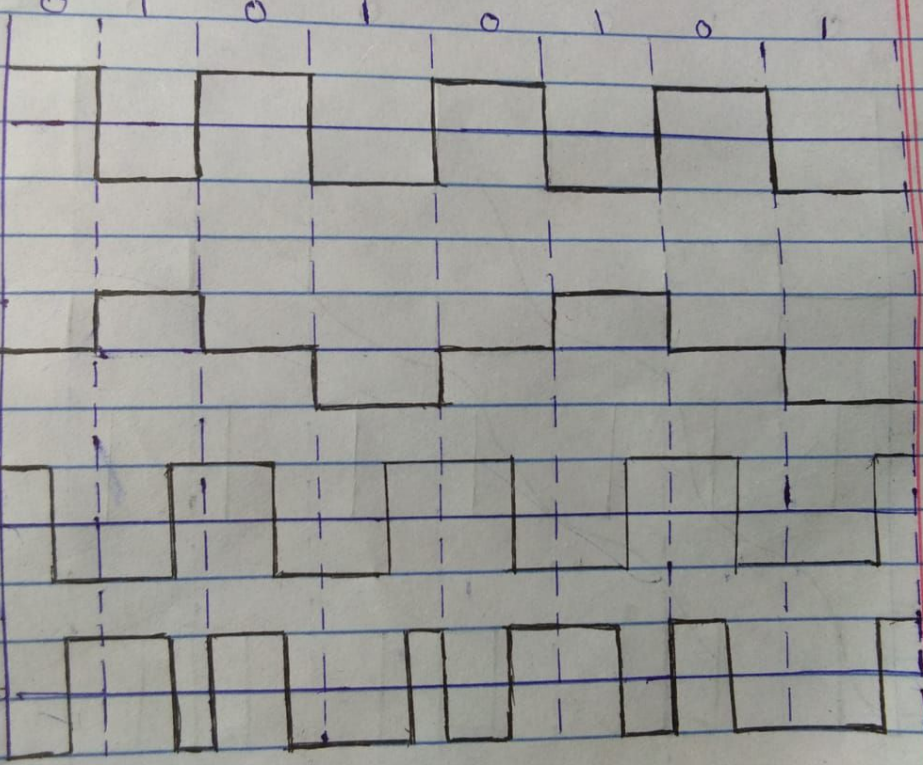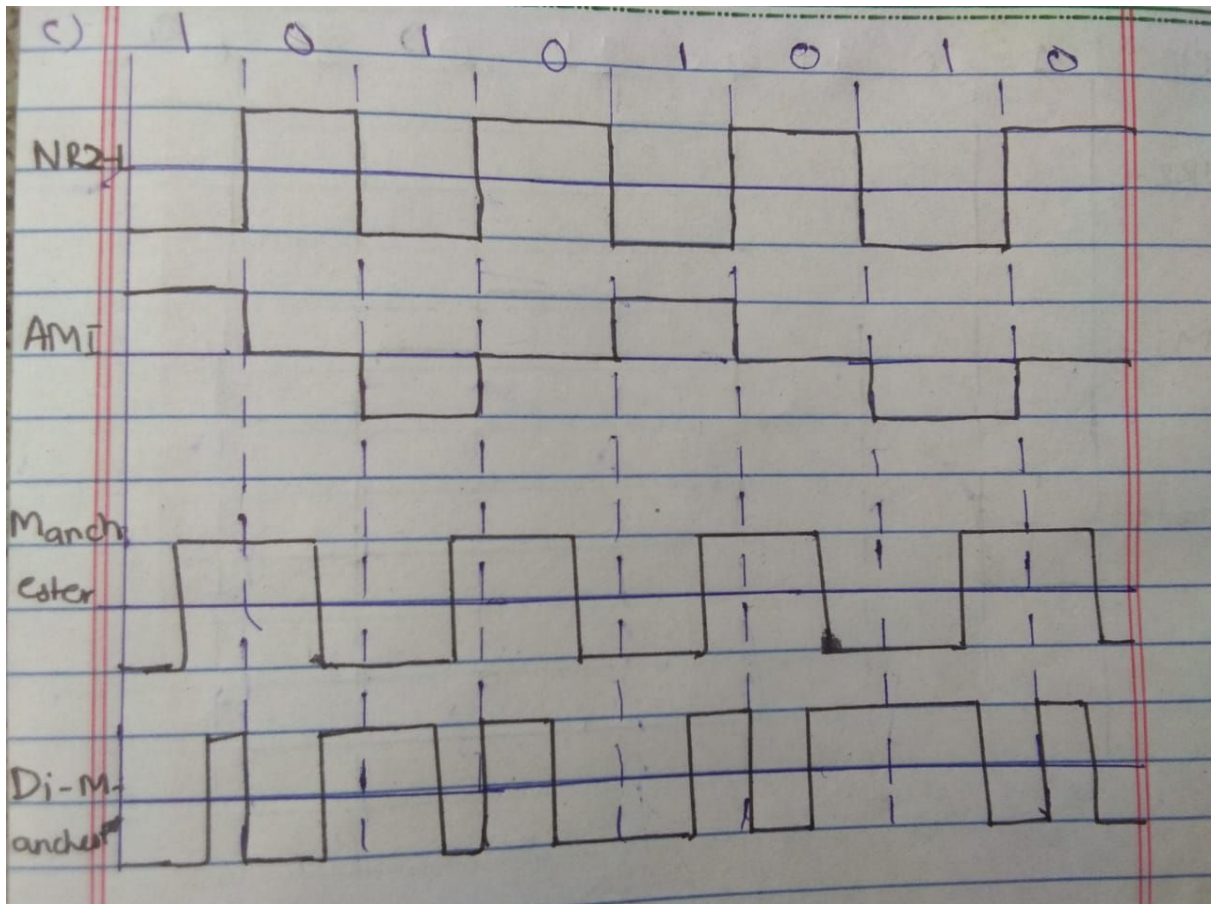
Q3.

Issues:

Mobility:

The current Internet, designed for stationary end-hosts, does not handle mobility easily within the Internet architecture. The issue of mobility relates to handling changes in location and underlying network connectivity of mobile end-systems at each protocol layer. Note that in this paper, we focus on host mobility.

Multihoming:

In the past, most hosts/nodes or computers had only one networking interface. Hosts stayed within one network with one egress path. However, multi homed hosts or devices having multiple networking interfaces are becoming more common.

Deploy ability:

Deploy ability of new mechanisms is an extremely important factor. The literature is rife with examples of technically superior proposals that have seen limited or no deployment in the real world owing to the lack of a proper and practical deployment plan.

CHALLENGES:

Networks that Know Themselves:

In a few years, literally billions of new wireless devices will come online. How should each wireless network treat each new device as it connects? Some devices will need lots of bandwidth. Some will require ultra-low latency. Some will be battery-power-limited.

Network as Sensor:

We can use wireless networks for more than just data transfer. Network devices are constantly painting their environments with radio waves; how those waves are reflected back provides useful information about the environment.

Radios as Software:

There are fascinating engineering challenges ahead in the field of software-defined radios (SDRs) and cognitive radio. Rather than having to engineer all the advancements I discussed above into new radio hardware, and worry about them quickly becoming outdated.