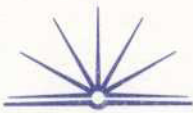Q23 i) The definition for
<comment> is particularly
difficult and cumbersome,
~~giving over~~ with every
option containing the
non-terminal <end line>
after it. It would be
better technique to ~~t~~
give all the choices,
~~eg <top>~~ and then,
as they all require
<end line> after them
no matter which one
you choose, to have
<end line> ~~at~~u~~ after
the ~~opt~~ options eg

<comment> ::= // <uppercase>|
            <lowercase> | <digit|
            <special characters>...
            <end line>
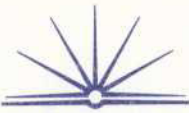
ie <end line> ~~after~~ at end no
matter which option you choose.

ii)

```
<hexadecimal> ::= <digit> | <letter_id> <hexadecim>
<letter_id> ::= A | B | C | D | E | F
```

b) ~~The development~~

Emerging network communications technology could affect the everyday use of this system in a number of ways:

- The emmergence of the hand-held industry eg WAP enable phones and blue tooth means that the individual doctors ec need not only be networked on the
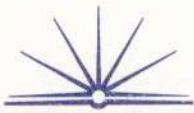
PC level but also, because of GPS, & satellites, be & handheld devices, be constantly linked. — This could allow doctors to communicate regularly from their current location to discuss current patients etc. — this is essential for any medical practice.

- The move away from mainframes to a client/server model or even a network of standalone PC's means the either each medical the common files needed accross the network will needed to need

to be located on a server at one of the practices, or be shared accross the PC's of the four practices, at four different locations. this may be confusing for doctors who have only basic computer skills and will either have to maintain a server or have to manage among themselves a range of files.

- ~~wireless network~~ The extension of the cable internet network, throughout country areas (where previously telephone lines were used) could mean that the network, ~~could~~ ~~softwar~~ run over the internet.

(i) ~~The analyst could involve~~
~~the different uses by:~~

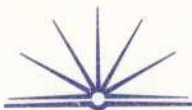The different uses
and the ways they
could be involved
are:

- ~~#~~ Patients: through
an anonymous servey
distributed to all
current patients
asking their opinion on
~~what~~ the needs of
the system.
- Receptionist: through
a interviews to determine
what they believe is
required and their
computer skill level
- Doctors: a focus group

of all the doctors could
be run to get their
~~an~~ collective input into
what the system needs

ii) Structured:
A structured approach
would provide a
good logical method
for developing the
system. The fact that
it contains definite
steps is useful as
it is a relatively
large system over
a large geographical
area ~~and in, which~~
~~means I~~ involving
a relatively large
team of people. ~~This~~
A structured approach

would allow each person involved to follow the software development process eg doctors, or software engineers, and would ~~mean that~~ the improve the integrity of the final network communications system
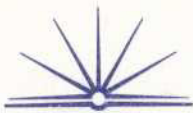
Rapid Application Development. RAD could be used as a development approach if communication between ~~deept~~ developers and doctors was constant. It would allow the project to be completed faster through use of CASE tools and reuse of

code, but the quality
and maintainability of
the final network might
be compromised, and, as
the network is ~~of~~ over
such a large area and
the medical practices
~~too~~ need it to be
reliable this would
suggest this method
is inappropriate. ~~However~~

Prototyping
the ~~prototyping~~ approach
is ~~at~~ definitely
unsuitable, though the
~~use~~ it may be useful
for developing the
user interface — the
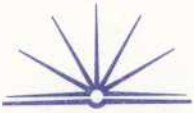fact that the solution
~~An~~ is a complex network

means that an evolutionary prototype would be unsuitable, ~~the~~

END USER
the end user approach would be unsuitable as the users of the system (doctors, receptionists etc) are not crating the system themselves. Also, the system requires a particularly unique solution to ~~create~~ a network ~~spet~~ specific to the particular medical practices, meaning that the usual end user approach of customising off the shelf packages would

not work, as there
is no ~~of~~ suitable
off-the-shelf package.

∴ the most suitable
would probably be
structured, or possibly
RAD.