

Start here for
 Question Number: **22**

a) A difference between a fat and thin client is, thin clients have a central mainframe or server which carries out the processes of users on the terminal, the terminals send inputs to ^{the} server and server does processing if the server fails the terminal fails as well as it does not have the processing equipment. Fat clients are ^{machines} ~~computers~~ that can carry out processing ~~at the~~ where the user ^{is} ~~is~~ (on the spot) example, PC's

b) Data Dictionary

i)	Field Name	Data Type	Appropriate size of data
	Date of Payment	Date	-
	Fees Paid	Y/N	-
	Student Name	Text	20 characters
	Student ID	Autonumber	-

ii) The home computer connects to the internet and sends ^{the message} ~~signals~~ ~~server~~ through the modem as a digital signal, the modem then demodulates the signals and converts to analog and sends the signal to the school's modem through the internet service providers, the message ~~reaches~~ reaches the modem and modulates the signals, converting them from analog back to digital for the ~~the~~ school server to access

iii) CRC (Cyclic redundancy Check) is suitable detection technique as the messages are sent and received, it is possible for the message to be corrupt. CRC involves the sender sending the message and the receiver obtaining that message and resends again for the sender to check ~~whether~~ for errors ^{or} ~~if~~ changes and sends it back again. It is ^a efficient way of error detection compared to other methods such as ^{(checksums), even ~~at~~} parity bit as it involves the receiver checking for even or odd ^{number of} bits and any bit ~~may~~ may be changed along the way to form the same amount of bits, ~~which~~ ~~is~~ ~~not~~ ~~done~~ ~~by~~ ~~adding~~ ~~a~~ ~~start~~ ~~and~~ ~~stop~~ ~~bit~~ ~~at~~ ~~the~~ ~~end~~ ~~of~~ ~~the~~ ~~message~~