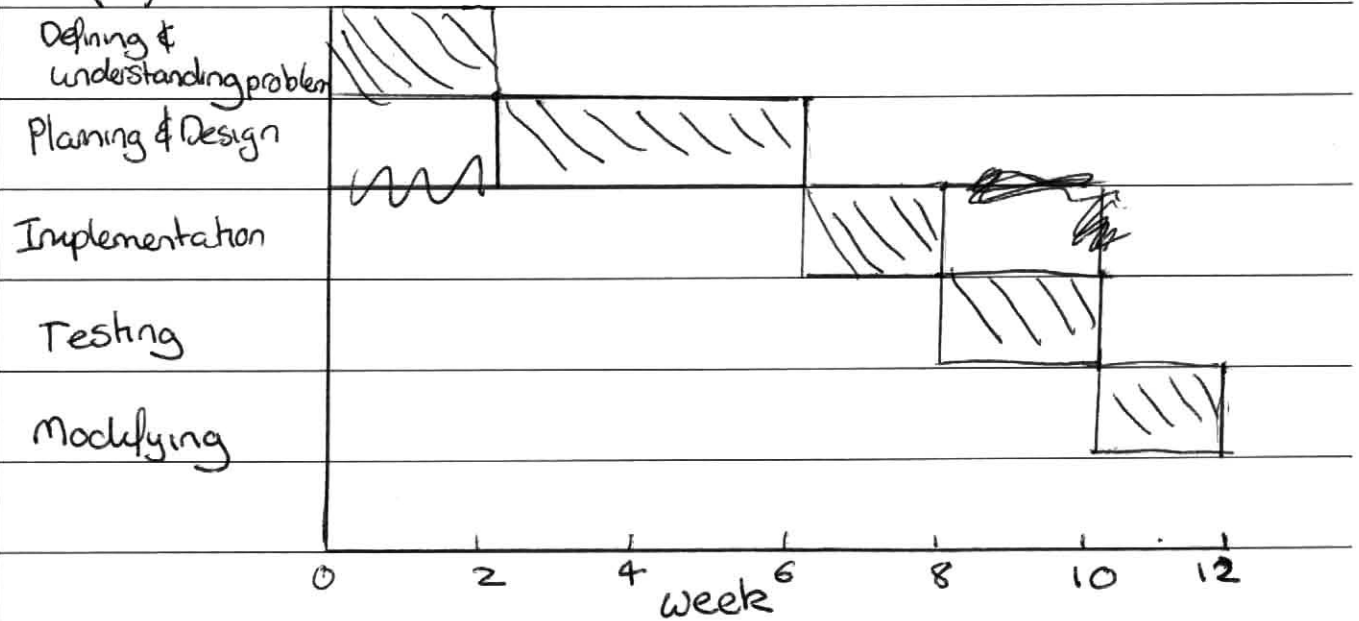




Question 21

(a)



(b) The use of data dictionaries allows the programmers to see what each variable is used for, without the data dictionary the programmers would have to spend a large amount of time to work out what each ~~is~~ variable is used for. The ~~use~~ of test data allows the programmers to see ~~what the outputs~~ what boundaries needed to be tested and allows them to identify ~~any~~ any unexpected outputs that occurred in the old system and modify them. Also test data ~~allows the~~

continued



2)
continued

allows the programmer to see what outputs are expected.

(c) (i)	Amount	gst	total output	gst_total
	22	2	22	2
	33	3	33	5
	11	1	66	6
	222	0	222	6

final output 66, 6

(ii) Begin

OPEN transaction

total = 0

gst_total = 0

READ first record

count = 0

while record NOT sentinel

count = count + 1

total = total + Transaction.amount

gst_total = gst_total + Transaction.gst

avg_trans_amount = ~~Transaction.amount~~
total / count

READ next record

Endwhile:
Output total, gst_total, avg_trans_amount

End.

(d) (i) This case tool ~~is~~ ~~helps~~ ~~to~~ ~~do~~

assist programmers etc in keeping a record of the different versions of the product.

By keeping the information on a sequential file, it makes it ~~is~~ simple to ~~find~~ ^{locate} information about different versions, as the ~~files~~ ^{information}

~~is~~ ^{is} in order it makes searching for a particular version relatively simple.

(ii) Begin

OPEN file

Index = 1

Length = number of files

Results is a sequential file

While Index ~~is~~ < length

~~IF~~ ~~version~~ version.len = number of lines of code

IF version.len > 1000

Record version to Results

End IF

increment index

End while

End