Q22.

a) i) outsourcing is the use through the 'world wide web' to collect ideas and construct its own intranet within the bank. For example, the developer could go to other sites and see other websites HTML sources and collect them and use the source on to the intranet within it own company.

ii) the implication of outsourcing relates to the constraints and ethical issues, the technical constraints are that if the developer uses other sources which is not his/her own will be hard to define the program sources such as variables etc. the Ethical issue brings to copyright issue which most sources outside the company (owned by others) are copyrighted. therefore if the developer wants to use the sources, he'll need a written permission by other sources' developers saying he/she has permission to use the source to create the software.

iii) Prototyping is one of the steps to be taken during software development. ~~It is process enables the~~

Prototyping is a working solution which enables the developer to interact with the software he/she is building and enables him/her to point out all the errors. This process is fast, cheap and reliable which has an advantage for building this software for the company. If the prototype works, the developers is able to use the first model as the final, which is able to reduce to cost of rebuilding another model. Therefore Prototyping can be considered to be included as a step of this software development.

b) i) The symbol ♂ (not shaded) is the representation of data transfer, which ables to provide details of the process during the data transfer.

The symbol ♂ (shaded) is the representation of a flag. It is to checke if the data transfer was successful or not. A flage can be considered as a Boolean (True/False or YES/NO).

b) ii) The error is in line 12, it says "WHILE NOT cardInSlot" if card is in slot, then it is TRUE, they need to put "ELSE cardInSlot = FALSE" because what happens if the card is not in slot.

↓

⋮

09
```
WHILE NOT cardInSlot
    READ cardSlot
    IF card is located in card slot THEN
        cardInSlot = TRUE
    ELSE
        cardInSlot = False
    END IF
END WHILE
```

P.T.O. >>

for (iii)

iii)

```
PROCEDURE AcceptAndValidatePassword (storedPassword, validated),
  BEGIN
    set counter = 0
      PRINT "Enter password"
    REPEAT
      READ password (storedpassword)
        IF password = FALSE THEN
          counter = counter + 1
        ENDIF
    UNTIL
      Password = TRUE
  IF counter > 3
    Eject card.
  ELSE proceed with Transaction.
  END IF
END PROCEDURE.
```