Tutorial Objective:

- to demonstrate understanding of the concept of levelling.
- Remember that a levelled set of Data Flow Diagrams consists of a Context Diagram, Level 0 diagram (major functions), and one or more lower levels of the tasks within each function.
- Evaluate process modelling in terms of Blums’ taxonomy

Tutorial Task:

1. The business process of daily invoicing is as follows: at the beginning of the day the stack of sales orders with their associated dispatch notes is taken from the in-tray and processed. The details of each order are checked against the details of the relevant customer account and a discount is calculated. Trade customers are allowed a discount of 15% off the listed price. There is also a special 5% discount for any customer who has been ordering regularly for two years, provided that the customer has not already received the trade discount. Any order over $1000 is allowed a bulk discount of 10% off the listed price in addition to any other discounts. If the total to be invoiced exceeds the customer's credit limit a note is sent to the manager prior to the dispatch of the invoices. When all invoices have been dispatched a note of the total amount invoiced is sent to the manager.

Represent this business process as a levelled set of Data Flow Diagrams.

2. A theatre accepts postal and telephone bookings for its forthcoming performances up to a period of six months in advance. About half of the bookings are directly from the public, the remainder being from agencies. When a member of the public makes a booking by telephone, either a credit card number is taken and the booking is firmly made, or a reservation for the seat is taken. In the latter case the member of the public must collect and pay for the ticket at least half an hour before the performance.

In the case of agencies, on receipt of a block booking request by phone or mail, the theatre runs a credit check on the agency account and makes out a confirmation note for those requested seats that are still available. This is sent to the agency as both a confirmation of booking and an invoice. At the end of each month the theatre sends a statement of account to each agency.

Half an hour before the performance starts all those seats that have been reserved by the public but have not been collected are released for general sale. The theatre also receives inquiries on seat availability from both agencies and the public.

Draw a levelled set of data flow diagrams to illustrate the data flows, processes and stores necessary to carry out the invoicing, enquiry and booking facilities of the theatre.

3. Undertaking a unit is an organisational process which a student goes through when obtaining a MIMS degree. Draw a levelled set of data flow diagrams that illustrate the process at Monash. Consider all the functions which must be undertaken in order to
successfully complete a unit in the Masters degree. Subdivide these functions into the individual low-level processes that you go through.

4. Evaluate process modelling in terms of Blums’ taxonomy. Do you agree with the classification Blum assigned to process modelling