NATIONAL SCHOOL OF BUSINESS MANAGEMENT
BSc. In Management Information Systems (Special) – 19.2/20.1
BSc. (Honours) in software Engineering – 19.2/20.1
BSc. (Honours) in Computer Science – 19.2/20.1
BSc. (Honours) in Computer Networks – 19.2/20.1
BSc. (Hons) in Management Information Systems – 19.2/20.1

Year 02 Semester 01 Examination
01ˢᵗ June 2021
SE201.3 – Systems Analysis and Design

Instructions to Candidates

1) Answer all questions.
2) Total Number of Pages 03.
3) Time allocated for the examination is three (03) hours and 30 minutes (Including downloading and uploading time)
4) Weightage of Examination: 60% out of final grade
5) Download the paper, provide answers to the selected questions in a word document.
6) Please upload the document with answers (Answer Script) to the submission link before the submission link expires.
7) Answer script should be uploaded in PDF Format.
8) Under any circumstances E-mail submissions would not be taken into consideration for marking. Incomplete attempt would be counted as a MISSED ATTEMPT.
9) The Naming convention of the answer script – Module Code_Subject name_Index No.
10) You must adhere to the online examination guidelines when submitting the answer script to N-Learn.
11) Your answers will be subjected to Turnitin similarity check, hence, direct copying and pasting from internet sources, friend's answers etc. will be penalized.

Read the below case study and answer questions given below.

Business Case of FURNITURE MATER

FURNITURE MATER is a furniture manufacturer who sells their products to furniture shops, not individuals. These shops are therefore FURNITURE MATER's customers and will have registered with Furniture Master by providing their shop details. Once these customers register with FURNITURE MATER, they will be given a customer ID, username, and password. The furniture shops will typically place orders with FURNITURE MATER over the internet after logging in to the system using this username and password. Once a customer has placed an order delivery will be scheduled within three weeks. Each customer order can consist of more than one type of furniture, and the required quantity of each type is also recorded on the order.

At the end of each week, a "production requests report" is produced by the sales department and sent to the manufacturing department. So, the manufacturing department knows how many of each furniture type it needs to produce in the following week. This report is based on the number of each type held in stock in the warehouse and the quantity of each type ordered by customers. The production requests report is also used to place purchase orders for parts from the suppliers so that all the necessary parts are available for the week's production. All the purchase orders are handled by the procurement department.

Each individual piece of furniture assembled has a unique code stamped on it. When a customer order is ready for dispatch, the code of each actual piece of furniture allocated to that customer order is recorded by the sales department so that each piece of furniture can be traced to a particular customer. Deliveries to customers can be arranged for complete or partial orders.

Information System of the FURNITURE MASTER uses separate files to store customer data, customer order data, stock data, furniture parts data, purchase orders to supplier data, and supplier data. FURNITURE MASTER takes orders only from local customers, but they are dealing with both local and foreign suppliers.

Question 01 **(25 marks)**

Answer following questions using only the details given in the case study.

1) Produce the context level data flow diagram for FURNITURE MASTER. (07 marks)
2) Identify three (03) high level processes in FURNITURE MASTER. (03 Marks)
3) Based on your answer for part 2, produce the Level 0 data flow diagram for FURNITURE MASTER. (15 marks)

Question 02 **(25 marks)**

Create a class diagram for FURNITURE MASTER. Include minimum two attributes and two methods for each class. You can make your own assumptions for the attributes and methods of each class.

(25 marks)

Question 03 **(25 marks)**
1) Identify the actors of the FURNITURE MASTER's information system. (04 marks)
2) Based on the answer for part 1 and using the details given in the case study, create a use case diagram for FURNITURE MASTER.

(21 marks)

Question 04 **(25 marks)**

Assume that you are the systems analyst who is working on the information systems development project of FURNITURE MASTER.

1) List the skills and knowledge that you should have to perform your job role efficiently in this project? (05 marks)
2) Briefly explain what are the main areas that you must focus on to conduct a feasibility analysis for this project. (08 marks)
3) Your team will be working on this project based on the Agile methodology. Explain how your team will perform the tasks according to this methodology. (You may use one agile method of your choice e.g.: SCRUM, Extreme Programming). (12 marks)

END OF THE PAPER