UNIVERSITY OF ESWATINI

FACULTY OF COMMERCE
DEPARTMENT OF BUSINESS ADMINISTRATION

MAIN EXAMINATION – 22 NOVEMBER 2019

COURSE TITLE   : MANAGEMENT INFORMATION SYSTEMS I

COURSE CODE   : BUS211 / IDE-BUS211 / IDE-BA215

PROGRAMME   : B.COM II (F.T); B.ED II (F.T); B.Sc.- I.T. (F.T), B.Sc.-

Comp.Sci., [F.T], B.COM LEVEL 3(IDE), B.ED LEVEL 2

(IDE)

TIME ALLOWED   : THREE (3) HOURS

INSTRUCTIONS:

1. THIS PAPER CONSISTS OF SECTION (A) AND (B)

2. SECTION (A) IS COMPULSORY.   TOTAL MARKS **25**

3. ANSWER ANY THREE (**3**) QUESTIONS FROM SECTION B.

                                       TOTAL MARKS **75**

4. THE TOTAL NUMBER OF QUESTIONS IN THIS PAPER IS FIVE (5)

5. THE TOTAL NUMBER OF PAGES IS FOUR (4).

NOTE: MARKS AWARDED WILL ALSO BE INFLUENCED BY GOOD COMMUNICATION IN ENGLISH AS WELL AS ORDERLY PRESENTATION, ESPECIALLY WHERE STATED.

THIS EXAMINATION PAPER SHOULD NOT BE OPENED UNTIL INVIGILATOR HAS GRANTED PERMISSION

SECTION A. - COMPULSORY

CASE STUDY

Electronic Medical Records and Hospital Processes

"I feel so tired. Never have I had to try and make sense of so many activities for an ERP improvement" lamented Rufus to his long-time girlfriend Tanya. "But I need to get this right" he continued. "Will you get someone to help me with this thing?" he asked Tanya. "Well tell me what's going on first" quipped Tanya.

Rufus then explains; "Ok. You see the hospital has a number of related activities being performed in different departments. For instance the Front-Desk is responsible for patients' admissions. They will either capture information about new patients, information such as Date of Birth, where they live etc. or update information on returning patients. This updating happens when a patient is returning to the hospital for follow-up sessions. Front-desk is also responsible for allocating beds to the incoming patients, whether new or returning. They simply access the Beds File and get all the information they need."

"So that is what is tiring you?" wondered Tanya. "Nope" replied Rufus. "You see, the staff in the ER (Emergency Room) also has to allocate operation slots to the patients. It is important that they ensure the doctor to perform the operation to be done is available on the day allocated to the patient. Where a doctor has no operation the ER staff must create a schedule for operations that the doctor can perform. The types of operations the hospital offers are listed in their services offered database."

Once patients are operated on, the ER staff captures the prescription onto the patient's file as well as onto a file titled Prescriptions Today (PT). Thereafter the operated patients are taken to the wards. The duty nurses will then look at the prescription file and administer the medication accordingly." Rufus paused. "Wow, that's some work hey" remarked Tanya. "Oh no, there's more" chuckled Rufus; "The medication is supplied by a number of companies. The Logistics Office (LO) handles this."

"Handles what?" asked Tanya. "The ordering of prescription drugs" responds Rufus. "The LO orders the drugs from a pool of suppliers. When the drugs come in, the LO has to record these into the Drugs Available file, which is also used by the ER staff to create an entry into their PT file. What is more interesting is that every activity related to a patient must be cross-checked on the Indemnity Schedule, to ensure the hospital is not doing what it is not supposed to do."

"The good thing though is that the hospital uses a hospital ERP system, called Electronic Medical Records (EMR) system so most information is easily available to all. For instance the Front Desk need not send a file with the patient as the patient moves from hospital service to another. The hospital staff simply moves the patient to the next service and the service provider opens their PC, punches in the patient code, and all information captured about the patient is easily available" concluded Rufus. "So, can you get someone to help me with this?"

"Sure I can", says Tanya, thinking of you. Help Tanya's boyfriend with the following.

Case Study Questions

1.   Break down the key challenge of costs as it relates to ERP systems. You are to explain, *__under your own headings__*, three [3] such angles of this costs challenge.   **(9 marks)**

2.   Develop a Data class / Process Matrix for the hospital organization mentioned in the case. Identify only *seven (7) processes* and a *maximum of 8 data classes*.   **(16 marks)**

SECTION B-ANSWER ANY THREE QUESTIONS FROM THIS SECTION

Question 2

Explain the concept of Porter's generic competitive strategies, and how information systems can help organisations effectively implement each strategic option selected, providing one example in each case. Use the following tabular layout to present your solution. **(25 marks)**

Competitive Strategy [I mark]	Explanation [2 marks]	How IT can help organisation implement the strategy [3 marks]	Example to illustrate [2 mark]
1.			

Question 3

Enterprise systems can either be successfully implemented or fail in an organisation. Based on your overall understanding of ERP systems, discuss, _**under headings**_, five factors you would consider necessary for the successful implementation and usage of enterprise systems in organisations. **(25 marks)**

Question 4

Refer back to the case study in Section A to answer this question

1. Discuss, _**under headings**_, the key project constraints that the hospital may experience as they embark on improving their ERP system. Be sure to relate these constraints to the hospital ERP improvement project. **(15 marks)**

2. What possible outcomes should the hospital organization expect from the business solution (improved ERP system)? Discuss, _**under headings**_, two possible outcomes. Make sure you relate these to the case. **(10 marks)**

Question 5

Discuss, _**under headings**_, five key features of e-commerce that make it attractive to businesses. **(25 marks)**