



SCHOOL OF ACCOUNTING AND BUSINESS
BSc. (APPLIED ACCOUNTING) GENERAL / SPECIAL DEGREE
PROGRAMME

YEAR II SEMESTER I (Intake II/III – Group B)
END SEMESTER EXAMINATION – APRIL 2016

ICT 20230 Business Information Systems

Date : 9th April 2016
Time : 9.00 a.m. - 12.00 p.m
Duration : Three (03) hours

Instructions to Candidates:

- Write the Index Number in the space provided at the top of this sheet. Do not write your name anywhere in this question paper.
- This paper consists of three part. (A, B and C)
- Part A – Answer **ALL** questions in the separate sheet provided.
Part B – Answer **ALL** questions on the paper itself.
Part C – Answer **ANY ONE (01)** questions
- The total marks for the paper is 100.
- The marks for each question are shown in brackets.
- Answers should be written neatly and legibly.

Part A

Answer ALL questions

Select the most appropriate answer

1. Which of the following is correct about computer programs?
 - A. It is a synonym for “information systems”
 - B. Java and Visual Basic are two languages used to write computer programs
 - C. There are no free and open source programming languages
 - a. A only
 - b. B only
 - c. A and B only
 - d. B and C only
2. Online Analytical Processing (OLAP) means;
 - a. A synonym for text mining
 - b. A transaction processing system category
 - c. A data mining technique
 - d. A technique for multi-dimensional data analysis
3. What is the role of **primary key** in a relational database table?
 - a. Helps to identify each record uniquely
 - b. Helps to establish relationships with records in other tables
 - c. It represents the most significant attribute of a record
 - d. It helps to establish a program-data independence
4. A denial of service (DoS) attack means;
 - a. A virus attack
 - b. Any malware attack
 - c. An attack which directs the user to a fake website
 - d. An attack which floods a server with service requests

5. Which of the following is NOT database software?
 - a. IBM DB2
 - b. SQL
 - c. Oracle
 - d. MS Access

6. Internal company websites accessible only by employees are known as;
 - a. Extranets
 - b. Internets
 - c. Intranets
 - d. Virtual Private Networks (VPN)

7. Which of the following supports collaborative work in an organization?
 - a. Project management tools
 - b. Wikis
 - c. CASE tools
 - d. CAD systems

8. Which of the following technique is best suited to automate the task of an investment advisor?
 - a. Expert systems
 - b. Augmented reality
 - c. Case-based reasoning
 - d. Virtual reality

9. Which of the following is true about decision support systems (DSS)?
 - a. They enable business users to arrive at a decision collaboratively
 - b. They are mainly targeted at the strategic management level
 - c. What-if analysis is one of the main capabilities of DSS
 - d. They support un-structured decision making

10. Which of the following information system types enables structured decision-making?
- a. Transaction processing systems (TPS)
 - b. Management information systems (MIS)
 - c. Business information systems (BIS)
 - d. Executive support systems (ESS)

Part B

Answer **ALL** questions in this section in the space provided.

Question No. 01

- a. Define the term ‘Complementary Assets’

(02 marks)

- b. State three examples for complementary assets in a business organization

(03 marks)

- [illegible]

d. Digital firms offer flexibility in management and organization in terms of *time shifting* and *space shifting*. Briefly explain an example for each of these two.

(04 marks)

(Total 15 marks)

Question No. 02

- a. Define the term ‘Information System’

(03 marks)

- b. What is the difference between a computer program and an information system?

(02 marks)

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(06 marks)

- [illegible]

(04 marks)

(Total 15 marks)

Question No. 03

- a. Define 'IT infrastructure' of an organization.

(03 marks)

- b. Draw a diagram that depicts the client-server architecture in business computing

(02 marks)

- c. Briefly explain three major components of IT infrastructure in an organization

(06 marks)

- d. Define the term free and open source software (FOSS) and provide three examples for free software that could be used to build information systems

(04 marks)

(Total 15 marks)

Question No. 04

- a. Define '*data*', '*information*' and '*knowledge*'

(03 marks)

- b. Differentiate '*tacit knowledge*' and '*explicit knowledge*'

(02 marks)

- c. Name the four stages of '*knowledge management value chain*'

(02 marks)

d. Briefly explain three sources of knowledge for business organizations

(06 marks)

e. What is the importance of '*communities of practice*' in knowledge management

(02 marks)

(Total 15 marks)

Part C

Answer any **ONE (01)** question

Question No. 01

- a. Name three characteristics of *big data*
(03 marks)
- b. What characteristic of big data is suitable to explain the social network data? Justify your answer
(03 marks)
- c. Briefly explain the importance of *unstructured/semi structured* data for business intelligence
(04 marks)
- d. Suppose the bank where you work as the IT manager wanted you to initiate a data mining project to develop analytics based on the transactional data. However, a friend advised you that the database of your transaction processing system should not be used for data mining.
- i. Explain why the same database of a transaction processing system should not be used for data mining
(05 marks)
- ii. What is the technological solution commonly used for data mining to overcome the above issue/issues?
(02 marks)
- iii. Name three types of information obtainable by data mining in the banking industry
(03 marks)
- (Total 20 marks)**

Question No. 02

- a. Briefly describe the activities of '*system analysis*', '*programming*' and '*testing*' stages of the systems development process
(06 marks)
- b. Briefly explain the advantages and disadvantages of prototyping as a systems development methodology
(04 marks)

c. Cloud computing emerges as an alternative for sourcing IT infrastructure for business computing.

i. Name two characteristics of cloud computing

(02 marks)

ii. What are the key types of on-demand services obtainable in cloud computing

(03 marks)

iii. Briefly explain an advantage and a disadvantage of using cloud based data center services

(03 marks)

d. What is/are the advantage(s) of using free and open source software in systems development?

(02 marks)

(Total 20 marks)