



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B.Sc. (General) Degree in Information and communication Technology
Second Year - Semester II Examination – November/December 2016**

ICT 2207 – MANAGEMENT INFORMATION SYSTEMS

Time: Two (2) hours

INSTRUCTIONS TO CANDIDATES

- This paper consists of three (03) sections **A, B** and **C** on 12 pages including this page.
- **Section A** contains thirty (30) multiple choice questions. Answer **ALL** questions in Section A using the detachable answer sheet provided at the end of the paper.
- **Section B** contains three (03) structured questions. Answer **ALL** questions in Section B.
- **Section C** contains two (02) essay questions, and answer **only ONE (01)** question.
- **Detach** the answer sheet for Section A from the paper, write your index number, and attach it to the answer scripts of Section B and C. Section B and C may be answered using the same booklet, however, sections should be clearly labelled, and the question numbers of Section B should be clearly indicated.
- This exam accounts for 60% of the course assessment. The total maximum mark attainable is 100. The marks assigned for each question and section thereof are indicated in square brackets.
- This is **closed book** examination.
- Mobile phones or any other communication devices are not permitted.
- Clearly state the assumptions you make. If you have any doubt regarding the interpretation of wording of a question, make your own decision, but clearly state it on the script.

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SECTION A**Multiple Choice Questions**

This section contains thirty (30) questions.

Answer ALL questions using the answer sheet provided at the end of this paper.

All questions carry equal marks.

Detach the answer sheet from the question paper and attach it to Section B and C.

Select only one answer for each question.

[30x1 marks]

1. Organizations rely more on telework, remote work, distributed decision making and outsourcing of work with the direct support of
 - (i) Cloud Computing
 - (ii) Growth of the mobile digital platforms
 - (iii) Centralized organization structure
 - a. (i) only
 - b. (ii) only
 - c. (i) and (ii)
 - d. (i), (ii) and (iii)
2. Digital firms offer extraordinary opportunities for more flexible global organization and management. Norms of a digital firm are;
 - (i) Time Shifting
 - (ii) Global barrier shifting
 - (iii) Space shifting
 - a. (i), (ii) and (iii)
 - b. (i) and (ii)
 - c. (i) and (iii)
 - d. None of above
3. West Hill hotel chain uses a system to keep track of guests' preferences such as their preference room temperature, frequently dialed telephone numbers, and television programs, and store these data in a large data repository. Individual rooms in hotels are networked to central network server computer so that they can be remotely controlled. When a customer arrives at one of these hotels, system automatically changes room conditions based on customer's digital profile. This system is also used to design training programs for employees based on reviews and complaints of customers.

Which of the following is a strategic business objective/ objectives that will be achieved by West Hill Hotel chain with the use of above mentioned system?

- a. New Products, Services, and Business Model
- b. Customer Intimacy and Improved decision making
- c. Customer and supplier Intimacy
- d. Survival

4. Which of the following are **true** about Complementary assets?

- (i) Complementary assets are required to derive value from a primary investment.
 - (ii) Supportive business culture that values efficiency and effectiveness is a key organizational complementary investment.
 - (iii) Supporting the Internet infrastructure and collaborative work environments are complementary social assets.
 - (iv) Strong senior management support for technological investment and change is a complementary management asset.
- a. All of the above are true
 - b. (i) and (ii) are true
 - c. Only (iii) is not true, others are true
 - d. Only (iv) is not true, others are true

5. Which of the following is **NOT** a major concern in the Technical view of Information Systems?

- a. Theories of computability and methods of efficient data storage and access
- b. Mathematical techniques for optimizing selected parameters of organizations
- c. Mutual adjustment of both technology and organization until obtaining a satisfactory fit
- d. Development of models for decision making and management practice

6. Apple Inc.'s transformation of the business model of music distribution based on vinyl records, tapes, and CDs into an online, legal distribution model based on its own iPod technology platform is an example of:

- a. Improved efficiency
- b. Improved effectiveness
- c. Supplier and customer intimacy
- d. New products, services and business models

7. Which of the following Information systems will provide data to other Information systems?

- (i) TPS
- (ii) MIS
- (iii) DSS
- (iv) ESS
- a. All of above
- b. None of above
- c. Only (i) and (ii)
- d. Only (i), (ii) and (iii)

8. Which of the following statements are **false** about Enterprise Applications?

- a. Enterprise applications focus on executing processes across the business firm and serve only to top management
- b. Enterprise systems, supply chain management systems, customer relationship management systems and knowledge management systems are major enterprise applications.
- c. Firms use enterprise systems to integrate business processes of different functional areas in to a single software system.
- d. Enterprise applications are a solution to the challenge of working together with different kind of standalone systems of a company.

9. The use of digital technology and Internet to execute the major business processes of an enterprise is known as:

- a. e- commerce
- b. e- business
- c. e- collaboration
- d. e- government

10. Which of the followings are the reasons to growing the importance of Collaboration and Team within an organization?

- (i) Diverse teams produce better outputs, faster than individuals working on their own.
- (ii) Most of great innovators like Steve Jobs and Bill Gates are individuals who worked with a team of brilliant colleagues and has built strong collaborative teams and support innovation in their firms .
- (iii) Growth of professional work
- a. only (i)
- b. (i) and (ii)
- c. (i), (ii) and (iii)
- d. none of above

11. Which position is responsible for ensuring that the company complies with existing data privacy laws?
- Chief Security Officer (CSO)
 - Chief Privacy Officer (CPO)
 - Chief Information Officer (CIO)
 - Information Systems Managers
12. includes the strategies and policies for using information technology within an organization.
- Information system Department
 - IT governance
 - IT departments
 - Electronic government
13. Which of the following are **true** about an organization?
- Information Systems and organizations influence one another.
 - Organization is a stable, formal social structure that takes resources from the environment and process them to produce outputs.
 - Organizations and environments have a reciprocal relationship.
 - Information systems are key instruments of environmental scanning, helping managers identify external changes that might require an organizational response.
- All of the above are true.
 - None of the above are true.
 - Only (i) is not true.
 - Only (iv) is not true.
14. Information technology can help firms lower the, making it worthwhile for firms to contract with external suppliers instead of using internal sources.
- Production cost
 - Transaction cost
 - Agency cost
 - Transport cost
15. Most common reason for failure of large projects to reach their objectives is:
- failure of technology
 - lack of communication among team members
 - organizational and political resistance to change
 - problems of utilization of financial assets

16. Google's continuous introduction of new and unique search services on its web site, such as Google Maps is an example for:

- a. Low-cost Leadership strategy
- b. Product differentiation strategy
- c. Focus on market niche strategy
- d. Strengthen customer and supplier intimacy strategy

17. Which of following are Knowledge Workers?

- (i) Engineers
 - (ii) Secretaries
 - (iii) Scientists
 - (iv) System architects
- a. All of above
 - b. (i) and (iii)
 - c. (i) ,(ii) and (iii)
 - d. (i) ,(iii) and (iv)

18. Today compared to the total capital investment of companies on average, global trend in information technology capital investment is:

- a. over 40%
- b. over 70%
- c. over 50%
- d. over 30%

19. A statutory grant that protects creators of intellectual property from having their work copied by others for any purpose during the life of the author plus an additional 70 years after author's death is known as :

- a. Copyright
- b. Patent
- c. Trade secrets
- d. Private property

20. In order to take an ethical action, a person prioritized values in a rank order and understood the consequences of various courses of actions and took the action of higher rank. He has applied:

- a. Golden rule
- b. Descartes' rule of change
- c. Utilitarian principle
- d. Risk aversion principle

21. Which of the following are elements of IT infrastructure ecosystem?

- (i) Consultants and System integrators
 - (ii) Networking and Telecommunication
 - (iii) System developers
 - (iv) Sales agents
- a. All of above
 - b. (i) and (ii) only
 - c. (ii) only
 - d. (i), (ii) and (iv) only

22. Which of following are false about data mining?

- a. More discovery driven
- b. Provides insights into corporate data that cannot be obtained with OLAP
- c. Associations, Sequences and classifications of data can be obtained from data mining.
- d. Data mining cannot be used for clustering of data

23. Monitoring service levels and costs for promoting the company's strategy of combining low cost and superior service of DTDC (Door-to-Door Courier) is a responsibility of the dimension of the DTDC company.

- a. technical
- b. organizational
- c. people
- d. management

24. . Which of the followings can be considered to address the question of how much your firm should spend on IT infrastructure?

- (i) Business strategy of your firm
 - (ii) Market demand for your firm's services
 - (iii) IT assessment
 - (iv) Competitors' IT services
- a. All of above
 - b. Only (i) and (ii)
 - c. Only (i), (ii) and (iii)
 - d. Only (i), (iii) and (iv)

25. An eavesdropping program that monitors information travelling over the network is known as:

- a. spoofing
- b. sniffer
- c. spyware
- d. key loggers

26. A virtual company

- a. uses the capabilities of other companies without being physically tied to those companies
- b. uses Internet technology to maintain a virtual storefront
- c. uses Internet technology to maintain a networked community of users
- d. provides entirely Internet driven-services, or virtual product

27. use intelligent agent software for searching the Internet for shopping information.

- a. Shopping blogs
- b. Blogosphere
- c. Rich site summery (RSS)
- d. shopping bots

28. A book seller needs to create a series of decentralized data storing systems- one for point of sale data in retail stores, another for collage book store and third for online sales. He tells these systems should focus on a single line of business and should be constructed rapidly and at low cost than an enterprise wide data storing solution. Which is the most suitable solution to his requirements?

- a. Data warehouse
- b. Data Marts
- c. OLAP
- d. Cloud database system

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29. devises plans for the restoration of computing and communication services after they have been disrupted.

- a. Disaster recovery planning
- b. Business continuity planning
- c. MIS audit
- d. Risk assessment

30. Distortion of information about the demand for a product, as it passes from one entity to the next across the supply chain is known as:

- a. Distortion effect
- b. Information overloading
- c. Bullwhip effect
- d. Information management effect

SECTION B

Structured Questions

This section contains three (03) questions. Answer ALL questions. Each question carries a total of 15 marks

B-1

- a) What is a business process? [3 marks]
- b) What are the different types of Information Systems used in Businesses? Explain how these systems serve different levels of Management in organizations. [8 marks]
- c) Explain the importance of introducing enterprise applications? [4 marks]

B-2

- a) Briefly explain the business value chain model. [6 marks]
- b) Differentiate crackers from hackers. [2 marks]
- c) How does Information Technology flatten structure of an organization? Explain. [7 marks]

B-3

- a) Elaborate the interdependence between organizations and Information Systems with suitable examples. [7 marks]
- b) Name four different unique features of e-commerce. Give a brief explanation for each feature. [2x4 marks]

SECTION C

Essay Questions

Answer only ONE (01) question out of the two (02) questions given below.

- C-1** Knowledge management (KM) is the process of creating, sharing, using and managing the knowledge and information of an organization. Any Information system that helps in such processes is known as Knowledge Management System (KMS).

Central Tech Solution is a rapidly growing middle sized software solution providing company in IT industry. This company has two oversea branches- one in America and the other in Australia. Annually they are recruiting more than 50 trainee staff for different positions such as trainee software engineers, trainee quality assurance engineers, associate software engineers and etc. These newly recruited trainee staff is subjected to a three to six month technical training program.

Not only the trainee staff, but also some senior staff positions are offered some out bound training programs and scholarships to different universities, in order to gather new knowledge to the company. Staff members are encouraged to be innovative and funds are provided to conduct research activities in order to generate new knowledge within the company.

Periodically some resource persons are invited by the company to deliver special lectures and training sessions to their technical staff with the purpose of acquiring knowledge from external resources.

Propose a knowledge management system for Central Tech Solution to delivery of knowledge to trainee staff, to continuously manage the existing knowledge within the firm, to create new knowledge, to share existing and new knowledge among the staff members and to acquire new knowledge from external sources.

[25 marks]

- C-2** “In the modern business world, Information Technology plays an important role in developing and maintaining Collaborative Culture of an organization.” Do you agree with this statement? Justify your answer with Suitable examples

[25 marks]

END