



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF ARTS IN SECURITY MANAGEMENT AND POLICING STUDIES

KPS 408: INFORMATION SECURITY SYSTEMS MANAGEMENT

DATE: Thursday, 1st February 2018

TIME: 5.30 p.m. - 7.30 p.m.

INSTRUCTIONS:

Answer Question ONE and any other TWO questions.

- Q1. (a) State the governing principle behind an information security management system in an organization. (2 marks)
- (b) According to the National Computing Centre security is specified by four principles of Security. Explain these four principles. (8 marks)
- (c) State any four rights that a patent holder owns. (4 marks)
- (d) Explain the three activities that are carried out during the disposition phase of the system development life cycle in relation to information security. (6 marks)
- (e) Explain any three reasons that demonstrate that Security administration is a management and NOT a purely technical issue. (6 marks)
- (f) List the three steps that are covered in the risk assessment process. (4 marks)
- Q2. Kifarur Steel industries have decided to introduce information systems in its organization. The management has just realised that it is important to have well defined information security systems. You have been appointed as an information security officer in-charge of the security of all information systems and therefore part of the management. Risk Management and Risk Assessment are major components of Information Security Management System (ISMS). Risk management can be defined as "the process of identifying vulnerabilities and threats within the framework of an

organization, as well as producing some measurements to minimize their impact over the informational resources". Discuss the five basic processes that must consider if you were to perform process of risk management for your organization. (20 marks)

- Q3. (a) Discuss why security of information systems has also become the responsibility of the user and not solely the organizational responsibility. (4 marks)
- (b) Discuss the three groups whose contribution will account a lot for the successful development of the security plan. (6 marks)
- (c) You may also have noticed how often "the computer" is blamed for an inability to provide a service or product. For instance, the clerk in a shop is unable to use the cash register because "the computer is down." You may have a CD in your hand, plus exactly the cash to pay for it. But the clerk will not take your money and send you on your way. Often, computer service is restored shortly. But sometimes it is not. Discuss how you shall develop a business continuity plan that will avoid an organization to blame the computer for the blame of inability to provide service. (10 marks)

Q4. Explain the physical security techniques that will be put in place to protect the following information systems installations:

- (i) Information system installations access
- (ii) Media protection
- (iii) Output security
- (iv) Information technology equipment protection
- (v) External building safeguards and barriers (20 marks)

- Q5. (a) Discuss any five works that can be protected by the copyright laws. (10 marks)
- (b) Explain any five exclusive rights given to the owner of the copyright. (10 marks)