

KASNEB

DICT LEVEL II

INTERNET SKILLS

MONDAY: 21 November 2016.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question.

QUESTION ONE

- (a) Differentiate between “cyber bullying” and “cyber crime” in the context of Internet safety. (4 marks)
- (b) Highlight four legal issues raised by the use of the Internet. (4 marks)
- (c) State the role of each of the following as applied in Internet technology:
- (i) Proxy server. (2 marks)
 - (ii) DNS server. (2 marks)
- (d) Highlight four strategies of ensuring effective search using search engines. (4 marks)
- (e) Justify the importance of using a virtual keyboard in an online based system. (2 marks)
- (f) Outline two advantages of using Hypertext Transfer Protocol (HTTP) instead of File Transfer Protocol (FTP). (2 marks)
- (Total: 20 marks)**

QUESTION TWO

- (a) Highlight issues that could be considered in each of the following Internet governance aspects:
- (i) Internet freedom and human rights politics. (2 marks)
 - (ii) Governing the Internet infrastructure. (3 marks)
 - (iii) Standards and protocols governance. (3 marks)
- (b) Outline three reasons that have led to high demand for cloud computing services. (3 marks)
- (c) State three limitations of cellular Internet. (3 marks)
- (d) Explain the role of Wireless Body Area Network (WBAN). (2 marks)
- (e) State two examples of each of the following programs in the context of the Internet:
- (i) Web client. (2 marks)
 - (ii) Web server. (2 marks)
- (Total: 20 marks)**

QUESTION THREE

- (a) Distinguish between “web analytics” and “load balancing” as applied in website content management. (4 marks)
- (b) Highlight three poor website design practices. (3 marks)
- (c) Explain the roles of the following as used in Internet connectivity:
- (i) Protocols. (2 marks)
 - (ii) IP address. (2 marks)
 - (iii) Domain name. (2 marks)
 - (iv) URL. (2 marks)
- (d) Outline three security threats to a server. (3 marks)
- (e) Describe the term “unified communications” in the context of Internet communication services. (2 marks)
- (Total: 20 marks)**

QUESTION FOUR

- (a) Using an illustration, distinguish between two-tier and three-tier client/server architecture. (6 marks)
 - (b) Explain the following functions in the context of client/server model of computing:
 - (i) Transparency of location. (2 marks)
 - (ii) Encapsulation of services. (2 marks)
 - (iii) Scalability. (2 marks)
 - (c) Describe two problems associated with the use of Simple Mail Transfer Protocol (SMTP). (4 marks)
 - (d) Outline the sequential steps used by POP3 email protocol to access emails. (4 marks)
- (Total: 20 marks)**

QUESTION FIVE

- (a) Assess three challenges posed by the Internet to the protection of privacy. (3 marks)
 - (b) Citing an example in each case, distinguish between absolute URL and relative URL. (4 marks)
 - (c) Distinguish between the following terms in the context of Internet:
 - (i) “Blogosphere” and “e-commerce”. (2 marks)
 - (ii) “Dynamic website” and “brochureware”. (2 marks)
 - (d) Outline four application areas of Internet of Things (IoT). (4 marks)
 - (e) State five parts of an Internet browser. (5 marks)
- (Total: 20 marks)**
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