kasneb

DICT LEVEL II

INTERNET SKILLS

MONDAY: 27 November 2017.   **Time Allowed: 3 hours.**

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

QUESTION ONE

(a) (i) Explain four components of a search engine.   (4 marks)

  (ii) Outline the search process as is executed by various search engines.   (4 marks)

(b) Google is considered as a supermarket in the Internet space.

  With reference to the above statement, describe five applications which have contributed to this.   (5 marks)

(c) State five HTTP request methods.   (5 marks)

(d) An ICT student loaded a web browser to search for information online. After clicking the search button, the browser displayed the following errors:

  - Unable to connect to server.
  - HTTP 404 error.

  Required:
  Explain the causes of each error above.   (2 marks)
                                                                  (Total: 20 marks)

QUESTION TWO

(a) Describe "spear phishing" in context of Internet technology.   (2 marks)

(b) Propose four ways in which an organisation could improve on slow Internet speed.   (4 marks)

(c) List two popular free VoIP software applied in Internet usage.   (2 marks)

(d) Highlight two ways an online user could ensure e-mail and web-browser privacy.   (2 marks)

(e) Explain using suitable examples the relation between a DNS and a web-server.   (4 marks)

(f) Analyse using suitable examples the relationship between "End devices", "Intermediate devices" and "Network media".   (6 marks)
                                                                  (Total: 20 marks)

QUESTION THREE

(a) Distinguish between the following terms as used in Internet technology:

  (i) "RSS feed" and "Podcast feed".   (2 marks)

  (ii) "Tethering" and "hotspot".   (2 marks)

  (iii) "Threat" and "vulnerability".   (2 marks)

(b) Explain three reasons why a web developer could choose to design a website online as opposed to offline. (6 marks)

(c) Describe four technology trends that raise ethical issues when using the Internet. (4 marks)

(d) In the context of Internet security, analyse how cookies could be used to identify website visitors. (4 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Distinguish between "Bots" and "mobile code" as used in Internet security. (2 marks)

(b) Highlight four characteristics that could indicate that a computer has spyware. (4 marks)

(c) Compare and contrast between "Internet" and "World Wide Web (WWW)". (6 marks)

(d) In the context of Internet technology, differentiate between "application server" and "tomcat". (4 marks)

(e) Assess the role of Internet technology in development of smart cities. (4 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Highlight four hardware requirements for building a wireless Internet network. (4 marks)

(b) (i) Describe hypervisor as used in cloud computing. (2 marks)

(ii) List two benefits of implementing a hypervisor. (2 marks)

(c) Examine three needs that warrant the use of a 3 - Tier architecture. (6 marks)

(d) Highlight four impacts of emails to the modern society. (4 marks)

(e) State two benefits of website optimisation. (2 marks)

(Total: 20 marks)

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