



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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