

Tribhuvan University
Institute of Science and Technology

2069

Internet Technology

Full Marks : 60

Pass Marks : 24

Time : 3 hours

New Course

*Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.*

Attempt any five questions.

- | | |
|--|----------|
| 1. a. Explain the internet Domain and Domain Name System. | <8> |
| b. What do you mean by Teleports and terrestrial links? Explain. | <4> |
| 2. a. Define TCP/IP. Differentiate between IPV4 and IPV6. | <2+6> |
| b. Explain internet RFCS. | <4> |
| 3. a. Explain the N-Tired Client/Server Architecture. | <8> |
| b. Define the terms PGP and POP. | <4> |
| 4. a. Define HTTP. Differentiate between HTML and DHTML. | <2+6> |
| b. What do you mean by AJAX? | <4> |
| 5. a. Explain the designing of Internet System network architecture. | <8> |
| b. What do you mean by content filtering. | <4> |
| 6. Explain the intranet implementation guidelines. What are the benefits and drawbacks of intranets. | <8+4> |
| 7. Write short notes on <u><any three></u> : | <4*3=12> |
| a. IMAP | |
| b. RADIUS | |
| c. VPN | |
| d. IRC | |
| e. Cloud Computing | |

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2070

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New Course

Candidates are required to give their answers in their own words as far as practicable.

- 1.) How does satellite link work? What are the advantages using satellite as communications ?
- 2.) What do you mean by internet protocol suite ? Discuss about the IP heads.
- 3.) What are the main services provided by PGP protocol? How those consume in mail application?
- 4.) What is VPN tunnel? Illustrate the principle of VPN client-server interaction with an example.
- 5.) Describe the XML usage in web. What an XML element can contain, show with an example.
- 6.) What do you mean by universal naming conventions? Given a URL string
"http:mail.google.com/?shva=index#inbox". Now identify schema name hierarchical part, query
& fragment in the string.
- 7.) How an AJAX program gets executed? Discuss the steps of AJAX operations. Show with eg. How
can we create XML http report object?
- 8.) What are the proxy servers? Differentiate each of open, forward and reverse proxy servers.
- 9.) Define working mechanism of VOIP ? How undefined message benefits the communication
systems?
- 10.) Why load balancing is needed in servers? How WRR allocation for load balancing differs from
dynamic round robin allocation?

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2071

Internet Technology

Full Marks : 60

Pass Marks : 24

Time : 3 hours

New Course

*Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.*

Attempt any five questions.

1. a. Explain the history and development of Internets and Intranets.
b. Explain the Domain Name system and its uses.
2. a. Discuss the IP layer and its importance.
b. Explain the IPv4 and IPv6 with header structure.
3. a. Explain the Universal Internet Browsing.
b. Mention the different types of protocols and compare them.
4. a. Differentiate between WML and XML.
b. Explain the WYS/WYG Authoring tools.
5. a. Explain the load balancing and its applications.
b. Define the cookies.
6. a. Explain the tunneling protocols with example.
b. What are the benefits and drawbacks of internet?
7. Write short notes on <any three> :
 - a. Tele ports
 - b. Internet RFCs
 - c. Multi Protocol Support
 - d. NET application
 - e. Data centers

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2072

Internet Technology

Full Marks : 60

Pass Marks : 24

Time : 3 hours

New Course

Candidates are required to give their answers in their own words as far as practicable.

- 1) What do you mean by internet number? Describe the role in Regional Internet Registry(RIR) and National Internet Registry(NIR) in the internet systems.
- 2) How structure of a domain name looks like, describe with an example. How forward DNS resolution works?
- 3) How IPv6 addresses can be classified? Discuss about IPv6 header structure.
- 4) How SMTP differs from POP? What are the reasons for multiple protocols in internet systems?
- 5) Define WML Deck and Card. Write a simple WML code showing deck and card with some piece of text inside it.
- 6) What possible factors can be considered while filtering the content in web? How SMTP proxies can be used to filter mails?
- 7) What is the purpose of using XML? Why XML elements are said to be extensible? Support your answer with an example.
- 8) What do you mean by audio broadcasting? Discuss the basic components of IRC protocol.
- 9) Describe the building blocks that need to be considered while designing Internet System Network Architecture.
- 10) Discuss possible types of VPN Tunneling. How VPN client server interaction occurs, discuss with an example.

Tribhuvan University
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2073



Bachelor Level/ Fourth Year/ Seventh Semester/ Science

Full Marks: 60

Computer Science and Information Technology (CSc. 402)

Pass Marks: 24

(Internet Technology)

Time: 3 hours.

Candidates are required to give their answers in their own words as far as practicable.

(NEW COURSE)

Attempt all Questions

1. What are the roles of internet registrars? Define the generic top level domains. (3+3)
2. What are RFCs? How IPV6 addressing scheme differs from IPv4? (3+3)
3. HTTP protocol is often called connectionless, justify the statement. How FTP can be run in passive and active mode? (3+3)
4. What is the role of rendering engines in web browsers? How browser renders contents like text and images? (3+3)
5. What do you mean by proxy server? Describe the uses of proxy servers. (1+5)
6. Describe how RADIUS server provides Authentication, Authorization and Accounting services. (6)
7. Describe the different fields of cookie. How session cookie differs from persistent cookie. (3+3)
8. How use of firewalls ensures security of a network? Discuss about different types of firewalls. (3+3)
9. What is cloud computing? Mention the features of cloud computing. (2+4)
10. What are benefits of intranets? What network infrastructure need to be established for intranets? (3+3)