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Question Paper Code : 40051

B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018
Second Semester
Information Technology
IT 8201 – INFORMATION TECHNOLOGY ESSENTIALS
(Regulations 2017)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. What is the importance of Authoring Tools ?
2. List any four browsers and state the basic functionality of a browser.
3. Give the general syntax for a function in PHP.
4. What will be the output of the following PHP code ?

```
<? Php  
$count= 1;  
do  
echo "$count times is12 ".count*12." <br>";  
While (++$count<=3);  
?>
```
5. How many bits does IPV6 address contain ? How is it different from IPV4 ?
6. Differentiate WiFi and WiMax ?
7. Compare TDMA and FDMA.
8. Calculate the reuse distance in cellular communication given the radius of a cell to be 10 sqkm and the number of user in the cell is 48.



9. List the steps involved in a typical application development lifecycle.
10. Write any four multimedia applications used in education domain.

PART – B

(5×13=65 Marks)

11. a) i) Compare and contrast application server and database server. (6)
 ii) Explain the process of client server communication for a web request. (7)

(OR)

- b) i) Discuss on any four components that are needed to create a fully dynamic web page. (6)
 ii) Explain the process of developing a web application and hosting on the web server. (7)

12. a) i) Write a PHP program to declare an array of integers, to sort them in ascending order and to display the sorted array using for-each. (6)
 ii) Write a PHP program to read a text file line by line and to display it on the screen. (7)

(OR)

- b) i) Design a form that offer choices to user to select country name. Depending on the name selected map image of the country should be displayed on the same window and the capital of the country in the text format should be displayed near the image. (10)
 ii) What are cookies and how are they used ? (3)

13. a) i) Show how data flows through different layers in a TCP/IP network, calculate the number of times encapsulation and decapsulation take place. (6)
 ii) Discuss the collision avoidance technique used in wireless LAN. Is it possible for collisions to still occur ? Explain. (7)

(OR)

- b) i) Compare and contrast different types switching methodologies in network communication. (6)
 ii) Explain the various networking topologies in detail. (7)

14. a) i) Explain with a block diagram in detail how different services are provided by GSM. (6)
 ii) Discuss in detail about the digital cell phone components. (7)

(OR)



- b) i) Briefly discuss how call roaming service is carried out in cellular network. (6)
- ii) Explain about generation of cellular networks. (7)
15. a) i) Design a simple personal information system that gives you reminders for each day. Identify the inputs to be taken, processing to be done and the output to be produced. What multimedia components can be added to this application ? (6)
- ii) Explain the architecture of a generic search system. If this system is to be used for searching only images, which components would need to be changed and how ? (7)
- (OR)
- b) i) Design a simple social-media application to pass on messages to friends about the birthday of individual (except the birthday person) in the group to other friends. (6)
- ii) Design an application for a blood bank which accept blood request and based on the request (blood group) it identify the people from the database and send them the message. What are the important features needed for this ? (7)

PART – C

(1×15=15 Marks)

16. a) Using DIV element, write HTML code to design a web site for a online catering service. The web site should provide some highlighting facilities provided by them. The web site must provide the available menu and cost-of each menu item in a tabular form. The web site must also accept the order form which includes any number of items and quantity required. Write script to validate the form and to compute the total amount to be paid. In the web site the images of the items should be displayed. Draw the layout of your web site first and write HTML code for each page.
- (OR)
- b) Using frame and form, design a web site for an orphanage which should accept donation from the people for 1 day lunch and medical assistance expense. It should also inform the donor how the donation has been spent. The web pages should be properly designed and should be viewed in any screen (mobile, pc). Amount transfer information should be done through validation. Draw the layout of your web site pages and write the code for each page.