2006E0171

Candidate's Seat No :_____

P. G. D. C. S. A. (Sem.-2) Examination

Networking Essentials

June 2019

Time : 3-00 Hours] **[Max. Marks : 50**

SECTION-I

Q1.(a) Give advantages of wireless networks over wired networks. List variants of IEEE 802.11 [4]

Q1.(b) Define: [5]

i. Router
ii. Hub
iii. Switch
iv. NIC
v. Cross over uplink port

Q2. Write short note on OSI model explaining all its layers. [8]

OR

Q2. Write short note on network topologies stating advantages and disadvantages of each. [8]

Q3. Explain use and structure of MAC address. How can you obtain MAC address in various operating systems? [8]

OR

Q3. Explain IP address under following heads. [8]

i. Agency who allots
ii. Format
iii. Classes

SECTION-II

Q4.(a) Give uses of: [5]

i. Ping command
ii. Patch cable
iii. Cross-connect
iv. Shielded twisted pair cable
v. ICMP protocol

Q4.(b) What is subnet mask? How it is used? Give subnet masks for class A,B and C [4]

Q5. Explain the ways in which intrusion takes place through: [8]

i) Social Engineering
ii) Password Cracking
iii) Packet Sniffing
iv) Virus and worms

OR

Q5. Write steps for trouble shooting and securing home networks [8]

Q6. a) What is function of web filter? What are the two types of VPN? List VPN tunnelling protocols [8]

b) Why it is necessary to keep an anti virus software uptodate?

OR

Q6. List down some important ports , their number and description. Write down specifications of wimax. [8]

2106E0178

Candidate's Seat No : _____

P. G. D. C. S. A. (Sem.-2) Examination

Object Oriented Programming Using Python

June 2019

Time : 3-00 Hours] **[Max. Marks : 50**

SECTION I

Q-1 Attempt the following **(Any THREE)** [9]

i. Differentiate Procedural Programming and object oriented programming. Also explain basic concepts of object oriented programming.
ii. Explain Recursion in python with example.
iii. Explain "eval" and "exec" functions with example
iv. Write a difference between custom function and standard function in python.

Q-2 Explain following with example**(Any TWO)** [8]

i. Standard mathematical functions and time functions in Python with example.
ii. Data Abstraction in object oriented design.
iii. Inheritance with its type

Q-3 Write a python program that takes a number from user and calculate factorial , check whether it is prime or not and print its multiplication table [8]

OR

Q-3 What is polymorphism? Explain its types. Write a python program to elaborate runtime polymorphism. [8]

SECTION II

Q-4 Attempt the following **(Any THREE)** [9]

i. Explain List slicing with example
ii. Give a brief description about event driven programming with example
iii. Write a difference between list and tuple. Also write basic operations of both with example.
iv. Explain list assignment and its equivalence.

Q-5 i. Explain dictionary in python. Also explain basic operation of dictionary with example [8]
ii. Explain Basic Layout options in Tkinter

Q-6 Write a brief description of any four Tkinter widgets [8]

OR

Q-6 Attempt following: [8]

i) Prime Generation with List with proper python code.
ii) Explain how multidimensional array can be generated in Python. Also Write a python code to add and subtract two 4X4 matrices in Python.(Take any elements in array)

2406E0185

Candidate's Seat No : _____

P. G. D. C. S. A. (Sem.-2) Examination

Web Application Development

June 2019

Time : 3-00 Hours] **[Max. Marks : 50**

Instructions:

1. Write each section in separate answer sheet.
2. Numbers to the right indicate full marks of the question.
3. Make appropriate assumption whenever necessary.

SECTION – I

Q-1 Attempt the following (any five) **10**

1. Differentiate == (= =) and === (= = =) PHP operator with appropriate example.
2. What is an associative array? Write one example of associative array.
3. What is the meaning of following special characters used in POSIX regular expression outside square bracket
   I. $ II. ^
4. Explain implode function with its general syntax and example.
5. Write only name of various data types available in PHP.
6. What do you mean by superglobal variable? Write only name of any two superglobal variables.
7. What will be output of the following code:

```
<?php
$a = 5;
$b = $a;
$a = 7;
echo $b;
?>
```

Q- 2 Attempt the following (any three) **15**

1. What do you mean by Identifiers for PHP? Write the rules for identifiers.
2. Explain with example use of the following functions in PHP
   i. empty ii. isnumeric iii. require iv. Include v.isset
3. Write two user defined functions in PHP which swap the values of two variables.
   1. Function passing by value
   2. Function passing by reference
4. What an interface defines? Are all the methods inside in an interface public? Are all the methods inside in an interface static? Is it compulsory to provide implements of each method defined in an interface? Can a class implement multiple interfaces?
5. Explain the meaning of following for Object-Oriented concepts in PHP:
   I. class II. object III. interface IV. overriding V. polymorphism

P.T.O

SECTION - II E185-2

Q-3 **Attempt the following (any three)** **15**

1. Explain the Web Database Architecture with diagram and stages.
2. What is cookie? What are the typical uses of cookies?
3. Explain subquery operator "all" with its equivalent expression and description.
4. List and explain any five File Modes with their name and use.
5. Explain the following PHP functions with appropriate example:
   i. mktime ii. strtime iii. date iv. time v. setTime

Q-4 **Do as directed (any five)** **10**

1. For uploading a file, HTML form , method attribute value must be ____ and enctype attribute value must be _____
2. List and explain wild card characters that are typically used with like operator in Mysql?
3. What do you mean by Unix Epoch? What is Y2K38 problem?
4. Write only name of any four storage engines supported by MySQL
5. Write the command to create user as username Tom and password as Jerry in MySQL.
6. What is the principle of least privilege?
7. Write only name of any four aggregate functions of MySQL.

2506E0192

Candidate's Seat No : _____

P. G. D. C. S. A. (Sem.-2) Examination

Object Oriented Analysis & Design

June 2019

Time : 3-00 Hours] **[Max. Marks : 50**

NOTE : (1) Write both the sections in the separate answer books
(2) Figures to the right indicate full marks.
(3) Make necessary assumptions wherever necessary.

SECTION-I

Q.1 **Define the following (Any three)** [9]

1 Multiplicity
2 Metadata
3 Use Case
4 Constraints
5 State

Q.2 (a) Explain three types of modeling in object oriented methodology.
(b) Explain association class with example. (8)

OR

Q.2 (a) Differentiate between object diagram and class diagram.
(b) Explain Do/entry/exit activities in a state transition diagram.

Q.3 **Describe any two of the following.** (8)

(a) Draw class diagram for online examination.

OR

(a) Draw state transition diagram for showing the working of ATM machine.

SECTION-II

Q.4 **Define the following (Any three)** [9]

1 Aggregation
2 Generalization
3 Fork and join
4 Tagged value
5 swimlane

Q.5 (a) Differentiate between include and extend in use case diagram.
(b) Explain the significance of sequence diagrams. [8]

OR

Q.5 (a) Differentiate between use case and activity diagrams.
(b) Explain phases of SDLC in object oriented methodology. [8]

Q.6 **Explain the following (Any two)** [8]

(a) Draw use-case diagram for online food delivery application like swiggy/zomato.

OR

(a) Draw activity diagram for the following scenario of an online shopping website. Customer has to register before making any purchase. A list of products is given to the customer. S/He can select/modify/remove the products in the cart. Once complete selection is done the order can be placed and payment should be made. The delivery address and mode of payment should be entered before checking out.