

**B.Sc. (Sem.-V) Examination
302 CC Computer Science
May-2017**

Time : 3 Hours]

[Max. Marks : 70

Q-1 A. What is topology? Explain star topology and ring topology in brief. (6)

OR

A. What is network? Explain in brief about types of network. (6)

B. Answer the following: (6)

1. Explain connection less service of network layer.
2. Explain HTTP GET and HTTP POST method in detail.

OR

B. What is HTTP? Differentiate its persistent & non-persistent types with request-response behavior of HTTP. (6)

C. Fill in the blanks :- (2)

1. UDP packets have fixed size header of _____ byte.
2. Source to Destination delivery of packet is responsibility of _____ layer.

Q-2 A Explain Client-Server Operating system in brief. (6)

OR

A. Differentiate Router and Bridge. (6)

B. Define attack. Explain types of security attacks. (6)

OR

B. Define transmission media. Explain wireless transmission media. (6)

C. Do As Directed :- (2)

- 1 How many ports computer may have?
 - a) 1024 b) 1023 c) 65535 d) 65634
- 2 In a broad sense, a railway track is an example of _____.
 - a) Half Duplex b) Simplex c) Full Duplex d) None.

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P.T.O

Q-3 A. Draw the layered architecture of OSI reference model and write at least two services provided by each layer of the model. (6)

B. Explain TCP/IP protocol suite with its diagram. (6)

OR

B. What is the use of network cable? Explain types of shielded twisted pair cable. (6)

C. Do As Directed :- (2)

1. Define: Protocol
2. What is the purpose of domain naming system (DNS)?

Q-4 A. Explain switch, hub and repeater with its diagram in detail. (6)

OR

A. Differentiate Bus topology with Mesh topology. (6)

B. Explain Peer network operating system with their merits & demerits. (6)

OR

B. Which types of attacks fall in this category if we do not have a security plan in work place? Explain in detail. (6)

C. Do as Directed :- (2)

1. A ____ is a TCP name for a transport service access point.
a) port b) pipe c) node d) none
2. To use the services of UDP, we need socket addresses.
a) Four b) three c) two d) none.

Q-5 A. Differentiate network layer and transport layer with their diagrams. (6)

OR

A. Explain DHCP and DNS in brief. (6)

B. What is duplex? Explain types of duplexing. (6)

OR

B. Explain the following in detail: (6)

- 1) Differentiate physical address and logical address
- 2) Explain Peer-to-Peer processes in terms of OSI model.

C. Do As Directed: (2)

1. Which topology is Multipoint topology?
2. FTP stands for _____

2/53

1805E679

Candidate's Seat No. _____

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Q-1

A. Explain Characteristics of Software. (8)

OR

A. Explain SDLC in detail. (8)

B. Explain Software Challenges. (4)

OR

B. Write a short note on project management activity. (4)

C. **Do As Directed :-** (2)

1. Define Software Engineering.

2. How many types of software development models are there?

Q-2

A. Explain Waterfall Model in detail. (6)

OR

A. Explain Prototype Model in detail. (6)

B. Explain Spiral Model in detail. (6)

OR

B. Explain RAD Model in detail. (6)

C. **Do As Directed :-** (2)

1. Draw the diagram to show the Spiral Model.

2. List out the characteristics of SRS.

(P.T.O)

- Q-3
- A. Differentiate between correctness and completeness. (6)
 - B. Explain Components of SRS. (6)
- OR**
- B. Explain Characteristics of Requirement. (6)
 - C. **Give the full form of the following :-** (2)
 - 1. Write down the names of Structured Modeling elements.
 - 2. List out the rules of DFD.

- Q-4
- A. Write short note on Formal Requirement gathering techniques. (6)
- OR**
- A. Write short note on Requirement Validation. (6)
 - B. Explain Functional Modeling. (6)
- OR**
- B. Explain the errors can be generate in data dictionary. (6)
 - C. **Do As Directed :-** (2)
 - 1. What are the rules of first level DFD?
 - 2. What are the cases of Use Case diagram?

- Q-5
- A. Explain the Module level concept of designing. (8)
- OR**
- A. Explain the structure of class diagram. (8)
 - B. Explain problem partitioning and hierarchy in detail. (4)
- OR**
- B. Explain types of error in Data dictionary. (4)
 - C. **Do as directed.** (2)
 - 1. How many steps are there in behavior modeling?
 - 2. What are the levels of designing process?
-

COM 304 : Introduction to PHP & MY SQL

Q-1

- A. 1.) What is PHP? What can PHP do? What are the reasons to use PHP? (8)
 2.) Define these keywords : Localhost, Web server, Constants, Data Type

OR

- A. 1.) Describe the rules for PHP variables. (8)
 2.) How PHP code is parsed ?

- B. List out different operators in PHP. Describe Arithmetic and Increment / Decrement Operators with examples. (4)

OR

- B. What is Data Type ? Mention the data types with examples which are supported by PHP. (4)

- C. **Do As Directed :** (2)

- 1.) Describe the difference between echo and print statement.
 2.) Give the full form : WAMP, XAMP, LAMP, IIS

Q-2

- A Describe entry control and exit control loop with example in PHP. (7)

OR

- A. Describe any three conditional statement with example. (7)

- B. What is an Array? List out different types of Array in PHP. (5)
 Explain two-dimensional Array with example.

OR

- B. Describe 'break' , 'continue' and exit() with example. (5)

- C. **Do as Directed :** (2)

Explain POST method in PHP.

Q-3

- A. Define these keywords : class, object, 'const', static, private, final, public, protected (8)

(P.T.O)

E 799-2

B. Describe abstract class with example. (4)

OR

B. Explain constructor and destructor with suitable example. (4)

C. Give the full form of the following : (2)

What is the meaning of member function and member variable?

Q-4

A. What is Cookie in PHP? Describe Name , Value and Expiry argument of setcookie() with proper syntax. (6)

OR

A. What is a PHP Session? How to start and destroy session in PHP ? (6)

B. 1.) Give the description of following functions: (6)
getdate(), time(), checkdate(), max()

2.) Give the full form of these keywords : AJAX, XML, SQL, CSS

OR

B. Describe the following functions with syntax: (6)
fclose(), fgets(), fread(), pow()

C. Do As Directed :- (2)

Give the description of following functions:

abs(), round(), strlen()

Q-5

A. What is MySQL? Describe the advantages and features of it. (6)

OR

A. Describe the following keywords : (6)
Query, RDBMS, Table, Primary Key, Foreign Key

B. What is MySQL Data Types? Describe MySQL Numeric Types. (6)

OR

B. Describe TRUNCATE() and UPDATE query with example. (6)

C. Do As Directed (2)

Describe the following statements:

1.) mysqldump database > backup-file.sql;

2.) mysql database < backup-file.sql;

—————

2.43

2305E830

Candidate's Seat No. _____

B.Sc. (Sem.-V) Examination

S.E. 305 Computer Science

May-2017

Max. Marks _____

Time : 3 Hours]

Paper – COM- 305(Generic Elective-I)

Q-1

A. Explain the different models of Organizational Behavior (6)

OR

A. Explain the different stages of group development (6)

B. What is the role of manager? Describe various managerial skills (6)

OR

B. What is management? Describe organization function and its needs (6)

C. State the meaning of power. (2)

Q-2

A. Explain the importance and scope of organizational behavior (6)

OR

A. Bring out the concept of motivation with its importance and its types in detail (6)

B. Explain any two theories of leadership in detail (6)

OR

B. Differentiate leaders and managers. Explain the role of power and politics in any organizations. (6)

C. Define personality. (2)

Q-3

A. Explain the process of decision making in a group. How can group decisions be made more effective? (7)

B. What are the reasons of work stress? Explain the various measures adopted by the organizations to manage work stress. (5)

OR

B. What are the human reactions to organizational change? Suggest ways to overcome the resistance of change. (5)

P.T.O.

E830-2

C. What is meant by reinforcement? (2)

Q-4

A. Explain the different types of leadership styles? (6)

OR

A. Explain the importance and determinants of job satisfaction. (6)

B. Discuss the pros and cons of autocratic and democratic styles of leadership. (6)

OR

B. Discuss the characteristics and components of attitude in detail. (6)

C. What is called as stress? (2)

Q-5

A. Discuss why communication has assumed importance in modern industrial organizational. (7)

OR

A. What are the functions performed by groups? How can groups be used as a means of integration? (7)

B. Explain the perception process with an illustration (5)

OR

B. What are the determinants of Organization culture? Explain. (5)

C. What is the basic difference between group and team? (2)

B. What is command line argument? Explain how to use it in Java with suitable example. (4)

OR

B. Write a short note on: memory management in JAVA. (4)

C. Do as directed. (2)

- i. In Java program, the multiline comment must begin with ___ and end with ___.
- ii. One interface can inherit another by use of the keyword implements. [True/False]

Q-4

A. What is package? Write the steps for creating and using a package. Also list the advantages of package. (6)

OR

A. What is abstract class? How is it useful? Also write the difference between abstract class and interface. (6)

B. Explain static variable, static method & static class with example. (6)

OR

B. What is interface? How is it implemented? Which type of inheritance is achieved using interface? Give an example. (6)

C. Do as directed. (2)

- i. Which is not a bitwise logical operator?
a) & b) | c) ~ d) &&
- ii. The data or variables defined within a class are called instance variables. [True/False]

Q-5

A. What is a thread? Explain the complete life cycle of a thread. (6)

OR

A. What is the use of control statements available in Java? Explain while and do while iteration statements with example. (6)

B. Explain the terms overloading and overriding with example. (6)

OR

B. List the different methods of the thread class. Explain any three with example. (6)

C. Do as directed. (2)

- i. When two or more threads need to shared resources, they need some way to ensure that the resource will be used by only one thread at a time; this is achieved by a process, which is known as ____.
 - ii. The **package** statement defines a name space in which classes are stored. [True/False]
-