

Total No. of Questions :12]

P3696

SEAT No. :

[Total No. of Pages :3

[4961] - 34

S. Y. M.C.A. (Engg.)

COMPUTER COMMUNICATIONS & NETWORKS
(2008 Course) (610904)

Time : 3 Hours]

Instructions to the candidates:

[Max. Marks :70

- 1) Answer to the two sections should be written in separate answer books.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume suitable data, if necessary.

SECTION - I

Q1) What is Computer/ data communication? Explain basic model of communication with neat diagram. [11]

OR

- Q2) a) Explain any two unguided media in detail. [6]
- b) State types of transmission mode. Explain any transmission mode in detail. [5]

[12]

Q3) Explain in detail

- a) Connectors
- b) Bridges
- c) Switches
- d) Repeaters

OR

P.T.O.

- Q4) a) Explain service provided by data link layer in detail. [6]
b) Explain OSI model with their protocols. [6]

Q5) State types of media access protocol. Explain any two in detail. [12]

OR

Q6) Write short note on

- a) ALOHA [12]
b) CSMA/CD

SECTION - II

Q7) Write short note on [12]

- a) Quality of Service
b) Firewall
c) Internetworking

OR

Q8) a) Describe in detail virtual Circuit and Datagram Subnet. [6]

b) Describe IP protocol in detail. [6]

Q9) a) What is socket? Explain various socket primitives used in client server interaction. [6]

b) Explain difference between TCP & UDP. [6]

OR

- Q10) a) Explain how TCP provides flow control mechanism. [6]
b) What is silly window syndrome? How to overcome it? [6]

- Q11) a) What is FTP? Where & when it is used? Why does it require 2 ports? [5]
b) Explain Email Architecture with different Scenarios. [6]

OR

- Q12) a) Explain the working of HTTP. [5]
b) Explain DNS Servers. [6]

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SEAT No. :

[Total No. of Pages : 2

[4961]-46

may-16

**S.Y.M.C.A.(Engineering)  
JAVA PROGRAMMING  
(2008 Course) (610912)**

**Time : 3 Hours]**

**[Max. Marks : 70**

**Instructions to the candidates:**

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Answer any three questions from each section.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right side indicate full marks.*
- 5) *Use of calculator is allowed.*
- 6) *Assume suitable data if necessary.*

**SECTION-I**

- Q1)** a) Explain how interfaces are implemented in java. [6]  
b) What are packages? Explain how to create a package. [6]

OR

- Q2)** a) List and explain the features of java? [6]  
b) Explain the use of try, catch throw and finally keyword. [6]  
**Q3)** a) Explain the flow Layout in detail with example. [6]  
b) Write a java code to create a bouncing ball application [6]

OR

- Q4)** a) Write a short note on JMenu [6]  
b) Compare and contrast AWT and Swing. [6]  
**Q5)** a) Write an applet to display a smiley face. [5]  
b) How will you play an audio using applet? [5]

OR

- Q6)** a) Explain the life cycle of an applet in detail. [6]  
b) List and explain the various attributes of <APPLET>tag. [5]

P.T.O.



## SECTION-II

- Q7)** a) List and explain various input stream classes in java [6]  
b) What is serialization and how it is implemented in java. [6]

OR

- Q8)** a) Explain the various types of error that are encountered while file stream handling? How they are handled? [6]  
b) Write a short note on Random Access File. [6]
- Q9)** a) What is JDBC? Explain its role in Application development. [6]  
b) Explain the various JDBC drivers. [6]

OR

- Q10)** a) Write a program which display content of a table from MS access Database and display it. [6]  
b) Explain transaction management. [6]

- Q11)** a) Explain the constructors and function of Server Socket class. [6]  
b) Write how TCP is implemented in java. [5]

OR

- Q12)** a) Write a program to create an echo server. [6]  
b) What is internet addressing? Explain Inet Address class. [5]





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SEAT No. :

[Total No. of Pages : 3

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**S.Y.M.C.A. (Under Engineering Faculty)**  
**OBJECT ORIENTED ANALYSIS AND DESIGN**  
**(2008 Course) (Semester - IV) (610911)**

Time : 3 Hours]

may-16

[Max. Marks : 70

Instructions to the candidates:

- 1) Neat diagrams must be drawn wherever necessary.
- 2) Figures to the right side indicate full marks.
- 3) Use of probability table, electronic pocket calculator is allowed.
- 4) Assume suitable data if necessary.

**SECTION - I**

- Q1)** a) Explain the design view in 4 + 1 view architecture. [5]  
b) Explain CORBA architecture. [6]

OR

- Q2)** a) Explain in brief new features of UML 2.0. [5]  
b) Explain iterative architectural approach. [6]

- Q3)** a) Write note on: [6]  
i) UML profiles  
ii) Need of class diagram  
b) What is "Extensibility mechanism in UML"? Explain with example. [6]

OR

- Q4)** a) Which are the various structural diagrams in UML 2.0? Explain role of each diagram in brief. [6]  
b) Explain the benefits of using UML. [6]

P.T.O.



- Q5) a) Draw use case diagram for ATM system. Make necessary assumptions. [6]  
b) Explain with example association, generalization and aggregation. [6]

OR

- Q6) a) Draw Class diagram for a "Hotel Management System". Make necessary assumptions. [7]  
b) Explain CRC method with example. [5]

**SECTION - II**

- Q7) a) Draw interaction overview diagram for vending machine. Make suitable assumptions. [7]  
b) Write note on Interaction occurrences. [4]

OR

- Q8) a) Draw sequence diagram for withdrawing money from ATM machine. Make suitable assumption. [7]  
b) Explain with example communication diagram. [4]

- Q9) a) Draw state machine diagram for digital watch. Write your assumptions clearly. [6]  
b) Explain fork and Join with example. [6]

OR

- Q10) a) Draw timing diagram for washing machine. Write suitable assumption. [6]  
b) Write note on: Partitions and regions. [6]



- Q11)a) Explain Deployment diagram with example. [6]  
b) Draw component diagram for "Online Airline Reservation System." [6]

OR

- Q12)a) What is the use of package diagram? Explain with example. [6]  
b) Describe UML web applications. [6]

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Total No. of Questions : 12]

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[4961]-41

SEAT No. :

[Total No. of Pages : 3

S.Y.M.C.A.(Engg)

SOFTWARE ENGINEERING  
(2008 Pattern) (Semester-IV)(610909)

Time : 3 Hours]

Instructions to the candidates:

may-16

[Max. Marks : 70

- 1) Answer any three questions from each section.
- 2) Answer to the two sections should be written in separate answer books.
- 3) Figures to the right indicate full marks.
- 4) Neat diagrams must be drawn wherever necessary.
- 5) Assume suitable data if necessary.

SECTION-I

- Q1) a) What is software engineering? Explain generic process framework activities in software development. [6]
- b) What is RAD process model? Give the advantages of RAD model over the other process model. [6]

OR

- Q2) a) What is process pattern? Explain need of process assessment in software engineering. How process assessment can be achieved through different standard approaches? [8]
- b) Explain the need of personal and team process model in software engineering. [4]
- Q3) a) What is computer based system? Explain different elements of computer based system. [7]
- b) Explain how to map generic framework activities in the essence of software engineering practices. [5]

OR

P.T.O.



- Q4) a) Describe "system engineering hierarchy". Explain how system modeling plays vital role in system engineering. [6]
- b) Explain various communication practices which are need to be followed in software engineering. [6]
- Q5) a) What is requirement engineering? Explain the steps that require to initiating requirement engineering process. [6]
- b) Draw swim lane diagram for college library system which includes. [5]
- Student registers themselves with their details at library
  - Librarian issues books to student,
  - Student verification, and updation of student details also done by librarian
  - User and roles management

OR

- Q6) a) What is requirement analysis? State and explain how requirement analysis model works as a bridge between system description and design model. [7]
- b) Draw the use case diagram for above mentioned college library system. [4]

### SECTION-II

- Q7) a) How to evaluate user interface design? Explain design evaluation steps in detail. [6]
- b) What is the need of software architecture? Explain architectural design in detail. [6]

OR

- Q8) a) What is pattern based software design? Explain different views through which pattern based software design is implanted. [6]
- b) How to translate analysis model into design model in design engineering? [6]



- Q9) a) Explain smoke testing in detail. Give their advantages in testing. [7]  
b) Give the difference between verification and validation. [4]

OR

- Q10) a) What is white box testing? Explain control structure testing. [5]  
b) What is fault based testing? Give the limitations of fault based testing and also explain how to overcome it. [6]

- Q11) a) Explain Goal- Question-Metric paradigm. [5]  
b) Explain Albrecht's function point metric in analysis model. [7]

OR

- Q12) a) What is software quality? Explain in detail different factors that are contributed in software quality. [7]  
b) Write a short note on: "Metric for Object oriented design". [5]





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[4961]-42  
SY.M.C.A.(Under Engineering Faculty)  
WEB TECHNOLOGY  
(2008 Course) (Semester-IV)

SEAT No. :   
[Total No. of Pages : 3]

Time : 3 Hours]

Instructions to the candidates:

may-16

[Max. Marks : 70]

- 1) Answers to the two sections should be written in separate answer books.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume suitable data if necessary.

SECTION-I

Q1) a) Explain 3-tier architecture in detail with suitable diagram. [6]

b) What is e-commerce? Explain different applications of e-commerce examples. [5]

OR

Q2) a) Explain GET and POST methods in detail with suitable example. [5]

b) Explain FTP in detail with neat diagram. [6]

Q3) a) Create a static HTML page that displays the following output using table: [6]

| Product Details      |             |              |
|----------------------|-------------|--------------|
| Product Type         | Product No. | Product Name |
| Electrical Appliance | 1001        | Iron         |
| Kitchen Appliance    | 1002        | Toaster      |
| Kitchen Appliance    | 1003        | Oven         |
| Computer Accessory   | 2001        | Printer      |
| Computer Accessory   | 2002        | Scanner      |

P.T.O.



- b) Explain following CSS properties with suitable example. [6]
- i) font
  - ii) z - index
  - iii) background

OR

- Q4) a) What is CSS? Explain external CSS with suitable example? [6]
- b) Explain the following tags in brief with their attributes: [6]
- i) div
  - ii) ul
  - iii) table

- Q5) a) Write the main differences between [6]
- i) If...else and select case in VBScript.
  - ii) VBScript and JavaScript
- b) Explain any two loop statements in VBScript with suitable example. [6]

OR

- Q6) a) Write a function in VBScript to calculate area of circle. Accept radius from user. [6]
- b) Write string and date functions in VBScript. [6]

### SECTION-II

- Q7) a) Create an html page that accepts the registration detail from user such as name, address, phone number and email address. Validate the details using JavaScript. [6]
- b) Explain any four events in JavaScript in brief. [6]

OR

- Q8) a) Write a program to accept user id and password in JavaScript. Display welcome message if user name and password are correct or invalid user if not correct. [6]
- b) Explain document object model in JavaScript with suitable diagram. [6]



- Q9) a) What is JSP? Explain JSP Life cycle with suitable diagram. What are advantages of JSP over servlet? [6]
- b) Write JavaScript code to find out maximum of three numbers(All three numbers should be accepted from user and display the maximum among them in new text box on click of "Find Max" button) [6]

OR

- Q10) a) What is AJAX? Explain the working of AJAX model in detail. [6]
- b) Write a program in JSP to accept user information in html form and display the accepted contents in the browser window. [6]
- Q11) a) Explain the server controls in ASP.Net. [6]
- b) Explain the "onreadystatechange event of AJAX model". [5]

OR

- Q12) a) Explain the .Net framework. Explain how it is platform independent. [5]
- b) Explain all validation controls in ASP.Net in brief. [6]

