Roll No. _____ [Total No. of Pages : 2

PGIIIS-N 1548 B-15
M.Sc. IIIrd Semester Degree Examination
Computer Science
(Programming in Java)
Paper - HCT - 3.1
(New)

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates.

1) Section A is compulsory
2) Answer any five questions from section B.

Section - A

Answer the following questions. **(10×2=20)**

1. a) Discuss any two types of input streams.

b) What is exception?

c) Illustrate the concept of " This".

d) Justify JAVA is strongly typed language.

e) What is finally block? When and how it is used?

f) What is inheritance? What are its types?

g) What is data encapsulation?

h) What are class and objects?

i) Differentiate between abstract classes and final classes.

j) What is meant by object serialization?

Section - B

2. a) Define Socket create a server socket which is listening at port 4444. **(6)**

b) What are the applets life cycle methods? Explain them. **(6)**

3. a) What is package? Explain it with a suitable example and also write how to import packages. (6)

   b) Explain file I/O streams in JAVA. (6)

4. a) Write a JAVA program to implement the thread life cycle. (6)

   b) What is user defined exception? Explain with suitable example. (6)

5. a) Discuss overloading of methods in JAVA. (6)

   b) Discuss the various components of RMI. (6)

6. a) Write a JAVA program to connect a database using JDBC to find total marks of each student. Consider the following table: (6)

   STUDENT(ROLL NO., Sub 1 - marks, sub 2-marks)

   b) Write a RMI server program to add two numbers sent from client. (6)

7. a) Discuss in detail the event handling mechanisms in JAVA. (6)

   b) Explain different exception handling techniques in JAVA. (6)

8. Write notes on any **two** of the following. **(2×6=12)**

   a) Access protection.

   b) Buttons

   c) Wrapper classes

   d) Event listener.

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PGIIIS-N 1549 B-15
M.Sc. IIIrd Semester Degree Examination
Computer Science
(Data Communications and Computer Networks)
Paper - HCT - 3.2
(New)

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates.

1) Section A is compulsory.
2) Answer any **five** questions from section - B.

Section - A

Answer the following questions. **(10×2=20)**

1. a) What is data communication?

b) Define Modem.

c) Give two differences between UTP and STP cables.

d) Find the even parity for the data bits 01010111.

e) Find the hamming distance between two code words 100101 and 110010.

f) What is the need of framing?

g) Why Repeaters are required?

h) Define congestion control.

i) What is http? Where it is used.

j) Differentiate between plain text and cipher text.

Section - B

2. a) Explain any two network topologies. Mention merits and demerits. . **(6)**

b) Describe the optical fiber cable with a neat diagram. **(6)**

3. a) Apply CRC method to the polynomial $M(x) = x^9 + x^8 + x^6 + x^4 + x^3 + x + 1$ where $G(x) = x^4 + x + 1$ (6)

b) Describe the selective repeat ARQ protocol. . (6)

4. a) Explain Datagram packet switching. (6)

b) Illustrate the distance vector routing with an example. (6)

5. a) Explain Transmission Control Protocol (TCP). (6)

b) Describe the Leaky Bucket algorithm with a neat diagram. (6)

6. a) Why DNS is required? Explain its significance. (6)

b) What is FTP? Explain the working of FTP. (6)

7. a) What is cryptography? Explain symmetric key cryptography. (6)

b) Describe how packet filter firewall is used for security in the internet. (6)

8. Write notes on any two of the following. (2×6=12)

a) Line coding.

b) FDDI

c) UDP

d) WWW

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PGIIIS-N 1551 B-15
M.Sc. IIIrd Semester (CBCS) Degree Examination
Computer Science
(Information Technology)
Paper - OET - 3.1
(New)

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates.

1) Section A is compulsory.
2) Answer any five questions from section - B.

Section - A

Answer the following questions. **(10×2=20)**

1. a) Define computer network

b) What is IP address?

c) Name the services provided by VERONICA.

d) Why blogs are required?

e) How to define a frame?

f) What are XML variables?

g) List features of MS front page

h) Why E-commerce is required?

i) What is fire wall?

j) How smart cards are designed?

Section - B

2. a) With a neat architecture diagram describe OSI model. **(6)**

b) Explain different applications of LAN. **(6)**

3. a) Write a note on internet evolution. **(6)**

b) What is World wide web? How it functions? Explain. **(6)**

4. a) List different internet browsers and discuss their distinguishing features. (6)

b) What is a search engine? What are its functionalities? Discuss. (6)

5. a) Explain different text formatting and alignment tags in HTML with examples. (6)

b) How to link external style sheets using DHTML? Explain. (6)

6. a) Discuss about XML name spaces. (6)

b) How to host and publish a website? Explain. (6)

7. a) Discuss applications of E-Commerce. (6)

b) What is digital taken based system? How it works? Discuss. (6)

8. Write notes on any two of the following. (2×6=12)

a) ARCHIE

b) FTP

c) Cryptography.

d) E-CRM.

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PGIIIS-N 1550 B-15
M.Sc. IIIrd Semester Degree Examination
Computer Science
(Computer Graphics)
Paper - SCT - 3.1
(New)

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates.

1) **Section A** is compulsory.
2) Answer any **five** questions from **section - B.**

Section - A

Answer the following questions. **(10×2=20)**

1. a) Define computer Graphics.

b) What is SRGP

c) Give the formula for translation.

d) List the user interface softwares.

e) What are the raster methods for transformation?

f) State the components of illuminations.

g) State the principles of visible surface determination.

h) What is polygon meshes?

i) State the list of Graphics hardwares.

j) What is transparency?

Section - B

2. a) What is bezier curve? Define blending function for cubic bezier curves. **(6)**

b) Define parallel projection? Discuss its categories. **(6)**

3. a) Differentiate between raster and vector graphics. (6)

b) Define surfaces? Explain the most common representation for surfaces. (6)

4. a) Explain the composition of 3-D transformation. (6)

b) Describe in detail the various models of illuminations. (6)

5. a) State and explain the list-priority algorithm. (6)

b) Give the steps of basic incremental algorithm. (6)

6. a) Describe the solid modeling with suitable example. (6)

b) Explain the techniques for efficient visible surface algorithm. (6)

7. a) Explain the cohen-sutherland algorithm with an example. (6)

b) What is Shadows? Describe the flat Shadows with an example . (6)

8. Write notes on any **two** of the following. (2×6=12)

a) Area-sub-division algorithm.

b) Thick primitives.

c) Homogeneous coordinates.

d) Antialiasring.