

PGIIS - N 1555 B - 14
M.Sc. IIIrd Semester Degree Examination
Computer Science
(Data Communication & Computer Networks)
Paper : HCT - 3.2
(New Syllabus Under CBCS w.e.f. 2012 - 2013)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) Question 1 in Section - A is compulsory
- 2) Answer any Five questions from Section - B

Section - A

1. a) Define simple and Full duplex data transmission (10×2=20)
b) What are the functions of "CODEC"?
c) Mention the key factors of selecting any Physical Media
d) What are the properties of Line coding?
e) Compare and contrast analog and digital signals.
f) Express the frame format of IEEE802.3 Ethernet Media
g) What are the functions of bridges?
h) Mention the characteristic features of routing technique
i) How HTTP differs from HTTPS
j) Give an examples for e - mail service protocols

Section - B

2. a) With neat block diagram discuss the complete data communication system (6)
b) Explain any three communication tasks briefly (6)
3. a) Define protocols, explain the classification of IP addresses. (6)
b) Compare and contrast TCP/IP and OSI reference model (6)
4. a) Describe the architecture of IEEE 802. Standards (6)
b) Discuss any two important error control protocols of communication system (6)
5. a) Explain the design issues of the network layer (6)
b) Define congestion control, discuss three important issues of congestion control (6)

6. a) What are the functions of routers? Discuss briefly. (6)
b) Explain the importance of security issues in Internet (6)
7. a) Define DNS, with suitable examples and explain the significant features of DNS. (6)
b) Explain the quality of services and Integrated services of network packet transmission. (6)
8. Write short notes on any **Three** of the following : (04×03)
- a) TCP & UDP
 - b) Switching Techniques
 - c) FDDI
 - d) RS232 Interface
 - e) HDLC
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PGIIS - N 1557 B - 14
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

1. Answer the following questions (10×2=20)
- a) What is LAN and WAN
 - b) What are the internet services?
 - c) State E - mail features
 - d) Define document object model in DHTML
 - e) Mention the applications of XML
 - f) What is MS Front page?
 - g) Define e - commerce
 - h) What are B2B and B2C?
 - i) Define e - cash
 - j) What do you mean by digital Signature?

Section - B

2. a) Explain the various Categories of networks (6+6)
b) Discuss TCP/IP reference model
3. a) What is Internet? Explain internet services. (6+6)
b) Explain the concept of USENET and WWW
4. a) Discuss the Popular search engineer (6+6)
b) Explain how to register a website an internet?

5. a) What are DHTML and XML? Explain the differences between them (6+6)
b) Explain the popular HTML editors
6. a) Discuss the different types of E - commerce models (6+6)
b) Describe the architectural frame work of e - commerce
7. a) Explain the important tools of Internet (6+6)
b) Explain the procedure and concept of web Hosting and publishing
8. Write short notes on any two of the following (6×2=12)
a) XHTML
b) E - security
c) IP addressing
d) E - Payment system.
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PGIIS - N 1554 B - 14
M.Sc. IIIrd Semester Degree Examination
Computer Science
(Programming in JAVA)
Paper : HCT - 3.1
(New Syllabus Under CBCS w.e.f. 2012 - 2013)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- 1) Question 1 in Section - A is **compulsory**
- 2) Answer any **Five** questions from Section - B

Section - A

1. a) List any **Five** features of Java (2×10=20)
b) What is Java Virtual machine? How it is considered in context with Java's platform independent feature?
c) What is Polymorphism? List its advantages
d) How does arrays defined and used in Java?
e) What is an applet? Give example
f) Differentiate between overloading and overriding
g) Describe the life cycle of a thread
h) Explain how CGI is different from Servlet?
i) Does the applets communicate with each other?
j) List the steps involved in JDBC connection

Section - B

2. a) Describe the different data types available in Java with examples. (6)
b) What do you mean by exception handling in Java? Explain the general structure of an exception handling blocks (6)
3. a) What is an Applet? Discuss the different stages of the life cycle of an Applet (6)
b) Define a thread. Develop a program to create Multi threaded with different priority (6)
4. a) Write a Java program to demonstrate the Mouse Event handler (6)
b) With an example describe swing buttons (6)

5. a) List the advantages of using Java servelets (6)
b) State any four similarities between Interfaces and classes (6)
6. a) Explain the syntax of exception handling code with example (6)
b) Why swing components are called light weight component? Explain in detail. (6)
7. a) Does the Java directly supports the multiple inheritance? Illustrate your answer with an example (6)
b) List and discuss the role of various butter classes used in Java programming. (6)
8. Write short note on any **two** of the following : (6+6)
- 1) Wrapper classes
 - 2) Java security
 - 3) AWT programming
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PGIIS-N 1556 B-14
M.Sc. IIIrd Semester (CBCS) Degree Examination
Computer Science
(Computer Graphics)
Paper - SCT-3.1
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to candidates:

1. Q.No 1 in Section - A is **compulsory**
2. Answer any five questions from Section-B

Section-A

I Answer the following **(10x2=20)**

- a) What is meant by “scan converting a straight-line segment” in raster systems?
- b) List any five applications of computer graphics
- c) What is SRGP? State the procedure to draw a line in SRGP
- d) Describe eight symmetrical points on a circle with a neat diagram
- e) Define the terms aliasing and antialiasing
- f) Given $p(v)$, a parametric cubic point function for curve section between control points P_k and P_{k+1} define boundary conditions for Hermite curve section
- g) Describe the basic idea of z-buffer algorithm
- h) List different kinds of illumination models
- i) What is shear transformation
- j) Describe basic concepts of ray tracing

Section-B

2. a) Describe raster graphics features of SRGP in brief
b) Describe mid point line scan conversion algorithm with an example (6+6)
 3. a) What is clipping? write cohen-sutherland line clipping algorithm
b) Describe the raster display system architecture with a neat diagram (6+6)
 4. a) What is window -to view port transformation. Describe the steps in transforming a World-coordinate window into a view port.
b) Discuss the categories of parallel projections (6+6)
 5. a) Describe the basic 2D-transformations in homogeneous coordinates
b) What is polygon-mesh? Discuss polygon-mesh representations (6+6)
 6. a) Describe the methods for specifying a particular spline representation with suitable example
b) What is a bezier curve? Obtain the blending functions for cubic bezier curves (6+6)
 7. a) What is coherence? Explain different kinds of coherence
b) Explain binary space-partitioning(BSP) tree algorithm (6+6)
 8. Write short notes on any two of the following
a) General pivot-point rotation
b) The RGB color model
c) Diffuse reflection illumination model (2x6=12)
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