CWA ICWA Inter Stage I : Information Systems and Technology - June 2009

1—6(IST)
Revised Syllabus

Time Allowed : 3 Hours   Full Marks : 100

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 which is compulsory and any five questions from the rest.

Marks

1. (a) Match Column 1 with Column 2 and write your answers only in A, B, —, J   1x10
        for each part below:

	1		2
(i)	Hybrid	A.	Relation to measurement of network spe
(ii)	Computer	B.	Analogue or digital output
(iii)	Query language	C.	Very Large Scale Integration (VLSI)
(iv)	Encryption	D.	Use of more than on media for informati
(v)	TCP/IP	E.	presentation
(vi)	Bandwidth	F.	Removing program error
(vii)	Fourth	G.	Eliminating duplication
(viii)	generation	H.	Scrambling of data
	Redundancy		A method used to make hypertext docun
(ix)	Debugging	I.	readable on the World Wide Web
(x)	Multimedia	J.	Selection of data in a database
	HTTP		Software that converts data into small pa
			passes
			the same from one host computer to ano

   (b) Fill up the blanks with appropriate words: 1x5

   (i)   A group of circuits interconnecting all sections of the microprocessor is
         called a _____.

   (ii) _____ defined as the capacity to change the scheme at one level of
         database without having to change the schema at the next higher level.

   (iii) A _____ is a set of standards or rules.

   (iv) _____ are sets of corresponding tracks in all the surfaces in a disk
         pack.

   (v)   _____ are information processing system frequently used by
         accountants, managers and auditor to assist them in the decision making
         process.

   (c) State whether the following statements are TRUE or FALSE: 1x5

   (i)   Cache memory operates between CPU and main memory .

   (ii) A Cyber Appellate Tribunal shall consist of one person only.

   (iii) Sequential files are suited for online inquiry processing.

(iv) Online processing and real–time processing are same.

(v) One of the major functions of Public Key infrastructure includes issuing and revoking public key certificates.

2. (a) Distinguish between the following: 2x4

    (i) Internet and Extranet;

    (ii) System Maintenance and System Development;

    (iii) Control Unit and Arithmetic Logic Unit;

    (iv) Impact Printers and Non–impact printers.

  (b) What is system software? How does it differ from application software? List any four types of system software. 4

  (c) Convert to binary: 4

    (i) $(14.625)_{10}$ = (_____)$_2$

    (ii) $(0.875)_{10}$ = (_____)$_2$

3. (a) What is a Firewall? Can it prevent a virus from entering the system? What steps must be taken to prevent virus from infecting a computer? 5

  (b) Explain the Client Server model with respect to Internet. 5

  (c) What is an automated office? List the automated office components along with their major functions. 6

4. (a) Explain the terms 'Validity Check' and 'Hash Total'. 5

  (b) What is debugging? Explain the two kinds of the errors, which programmers usually deal with. 5

  (c) What is prototyping approach of developing a system? What are the advantages and disadvantages of it? What are the two types of prototyping approaches to system development? 6

5. (a) What are the characteristics and features of an ERP? 5

  (b) What is I/O interface? Give the functions and examples of I/O interface. 5

  (c) Which act defines Certifying Authority in India? Mention the functions of Certifying Authorities (CA) in India in the context of digital signature? 6

6. (a) Write the full form of the following abbreviations: 5

    (i) MAC

    (ii) NIC

    (iii) USART

    (iv) RDBMS

    (v) OT–PROM

  (b) Describe the objectives which are supported by an information system auditing. 5

(c) What do you understand Software Quality? What are main tools that are normally employed for quality assurance of software?   6

7. (a) What are the responsibilities discharged and the nature of problems during implementation phase handled by a System Analyst in a database environment?   5

(b) Describe the database along with its key functions.   5

(c) What are the major tasks performed by the Generalized Audit Programmes?   6

8. Write short note on any four of the following: 4x4

(a) Characteristics of a good coding system

(b) TCP/IP

(c) Operating system

(d) Protocol options

(e) Data independence

(f) Hierarchical database.