DEPARTMENT OF INFORMATION TECHNOLOGY &

COMMUNICATION (DOIT & C)

PROGRAMMER EXAM : 2011

PAPER -I

1. Consider a database table T containing two columns X and Y each of type integer. After the creation of the table, one record (X= 1, Y=l) is inserted in the table.

Let MX and MY denote the respective maximum values of X and Y among all records in the table at any point in time. Using MX and MY, new records are inserted in the table 128 times with X and Y values being MX+1, 2*MY+1 respectively. It may be noted that each time after the insertion, values of MX and MY change.

What will be the output of the following SQL query after the steps mentioned above are carried out?

SELECT Y FROM T WHERE X=7;

(a) 127
(b) 255
(c) 129
(d) 257

2. Database table by name Loan_Records is given below.

Borrower	Bank_Manager	Loan_ Amount
Ramesh	Sunderajan	10000.00
Suresh	Ramgopal	5000.00
Mahesh	Sunderajan	7000.00

What is the output of the following SQL query?

SELECT count(*) FROM((SELECT Borrower. Bank_Manager FROM Loan_Records) AS S NATURAL JOIN (SELECT Bank_Manager, Loan_Amount FROM Loan_Records) AS T);

(a) 3
(b) 9
(c) 5
(d) 6

3. Consider a relational table with a single record for each registered student with the following attributes.

1. Registration_Number: Unique registration number for each registered student
2. UID: Unique Identity number, unique at the national level for each citizen

3. BankAccount_Number: Unique account number at the bank. A student can have multiple accounts or joint accounts. This attributes stores the primary account number
4. Name: Name of the Student
5. Hostel_Room: Room number of the hostel

Which of the following options is INCORRECT?

(a) BankAccount_Number is a candidate key
(b) Registration_Number can be a primary key
(c) UID is a candidate key if all students are from the same country
(d) If S is a superkey such that S UID is NULL then S UID ∩ ∪ is also a superkey

4. The concept of locking cannot be used to solve the problem of
   (a) Lost update
   (b) Uncommitted Dependency
   (c) Incosistent Data
   (d) Deadlock

5. Designing physical model of DBMS requires information on
   (i) Data volume
   (ii) Frequency of access to data
   (iii) Programming language used
   (iv) Secondary memory characteristics
   (a) i, ii
   (b) 2. i, ii, iii
   (c) 3. i, ii, iii, iv
   (d) i, ii, iv

6. In, Transaction, In ACID properties A stands for
   (a) Atomicity
   (b) Acidity
   (c) Alphabetically
   (d) None of the above

7. Relational calculus is a
   (a) Procedural language.
   (b) Non- Procedural language.
   (c) Data definition language.
   (d) High level language.

8. Cartesian product in relational algebra is
   (a) a Unary operator.
   (b) a Binary operator.
   (c) a Ternary operator.
   (d) not defined.

9. DML is provided for
    (a) Description of logical structure of database.
    (b) Addition of new structures in the database system.
    (c) Manipulation & processing of database
    (d) Definition of physical structure of database system.

10. Architecture of the database can be viewed as
    (a) two levels.
    (b) four levels.
    (c) three levels.
    (d) one level.

11. An entity set that does not have sufficient attributes to form a primary key is a
    (a) strong entity set.
    (b) weak entity set.
    (c) simple entity set.
    (d) primary entity set.

12. The way a particular application views the data from the database that the application uses is a
    (a) module.
    (b) relational model.
    (c) schema.
    (d) sub schema.

13. Assume transaction A holds a shared lock R, If transaction B also requests for a shared lock on R.
    (a) It will result in a deadlock situation
    (b) It will immediately be granted
    (c) It will immediately be rejected
    (d) It will be granted as soon as released by A

14. A schedule S of n transactions is serializable if it is equivalent to some
    (a) Serial schedule of same n transactions
    (b) Non Serial schedule of same n transactions
    (c) Serial schedule of different n transactions
    (d) Non Serial schedule of different n transactions

15. The method in which records are physically stored in a specified order according to a key field in each record is
    (a) hash.
    (b) direct.
    (c) sequential.
    (d) all of the above.

16. Normalization of database is essential to

(i) avoid accidental deletion of required data when some data is deleted

(ii) eliminate inconsistencies when a data item is modified in the database

(iii) allows storage of data in a computer's disk

(iv) use a database management system

(a) i and iii

(b) i and ii

(c) ii and iii

(d) ii and iv

17. 'AS' clause is used in SQL for

    (a) Selection Operation

    (b) Rename Operation

    (c) Join Operation

    (d) Projection Operation

18. A relation is said to be in 2 NF if

    (i) it is in 1 NF

    (ii) non-key attributes dependent on key attribute

    (iii) non-key attributes a re independent of one another

    (iv) if it has a composite key, no non key attribute should be dependent on part of the composite key

    (a) i, ii, iii

    (b) i and ii

    (c) i, ii, iv

    (d) i, iv

19. A relation is said to be in 3 NF if

    (i) it is in 2 NF

    (ii) non-key attributes are independent of one another

    (iii) key attribute is not dependent on part of a composite key

    (iv) has no multi-valued dependency

    (a) i and iii

    (b) i and iv

    (c) i and ii

    (d) ii and iv

20. Given the following relation Student (roll no , name, course no, course max. marks, year of study, address) The corresponding 3 NF relations are

    (a) student (roll no , name, year of study, address) course (course no , course max. marks)

    (b) student (roll no, name, year of study, address) student (roll no , course no) course (course no , course max. marks)

    (c) student (roll no , name, address) year (roll no , year of study) course (course no , course max. marks)

    (d) student (roll no , name, address) course (course no , course max. marks, year of study)

21. A 3 NF relation is converted to BCNF by
    (a) removing composite keys
    (b) removing multivalued dependencies
    (c) dependent attributes of overlapping composite keys are put in a separate relation
    (d) dependent non-key attributes are put in a separate table

22. Given the relation
    Supplier(s_id, p_order, s_name, qty)
    Given that there is a unique s_name fo r each s_id and that s_id, p_order is a composite key, find the correct statement among the following:
    (i) this relation is a BCNF (ii) this is 3 NF relation
    (iii) this is a 2 NF relation (iv) this is a 1 NF relation
    (a) i and ii
    (b) ii and iii
    (c) i and iv
    (d) i and iii

23. Fourth normal form (4 NF) relations are needed when
    (a) there are multivalued dependencies between attributes in composite key
    (b) there are more than one composite key
    (c) there are two or more overlapping composite keys
    (d) there are multivalued dependency between non-key attributes

24. A relation project guidance
    Project Guidance(professor, project, student no . st-name, dept)
    A professor can give many projects to many students
    A project will have many students
    A project may be guided by many professors
    The 4 NF relation corresponding to this are
    (a) Prof_Project (professor, st_name, dept)
        Proj_stud (project, student no.)
    (b) Prof_stud (professor, student no)
        Proj_stud (project, student no)
        Student (student no , st_name, dept)
    (c) Student (student no , st_name, dept)
        Professor(professor, project)
    (d) Professor(professor, project , dept)
        Student (student no , st_name, dept)

25. Data integrity in a file based system may be lost because
    (a) the same variable may have different values in different files
    (b) files are duplicated
    (c) unnecessary data is stored in files
    (d) redundant data is stored in files

26. A subschema expresses

(a) the logical view.

(b) the physical view.

(c) the external view.

(d) all of the above.

27. Which one of the following statements is false?
    (a) The data dictionary is normally maintained by the database administrator.
    (b) Data elements in the database can be modified by changing the data dictionary.
    (c) The data dictionary contains the name and description of each data element.
    (d) The data dictionary is a tool used exclusively by the database administrator.

28. Data independence means
    (a) data is defined separately and not included in programs.
    (b) programs are not dependent on the physical attributes of data.
    (c) programs are not dependent on the logical attributes of data.
    (d) both (B) and (C).

29. SET concept is used in:
    (a) Network Model
    (b) Hierarchical Model
    (c) Relational Model
    (d) None of these

30. In two phase locking protocol
    (a) All unlocking operation precede the first lock operation
    (b) All locking operation precede the first lock operation
    (c) Locking and unlocking takes place simultaneously
    (d) None of the above

31. Transaction timestamp is
    (a) Not unique for each transaction
    (b) Larger for older transaction
    (c) Unique identifier assigned for each transaction
    (d) None of the above

32. Which of the following operation is used if we are interested in only certain columns of a table?
    (a) PROJECTION
    (b) SELECTION
    (c) UNION
    (d) JOIN

33. Which operation sets LOCK (X) to 0
(a) unlock_item(X)
(b) lock_item(X)
(c) dlock(X)
(d) all of the above

34. Which database level is closest to the users?
(a) External
(b) Internal
(c) Physical
(d) Conceptual

35. Which of the operations constitute a basic set of operations for manipulating relational data?
(a) Predicate calculus
(b) Relational calculus
(c) Relational algebra
(d) None of the above

36. A data dictionary is a special file that contains:
(a) The name of all fields in all files.
(b) The width of all fields in all files.
(c) The data type of all fields in all files.
(d) All of the above.

37. The physical location of a record is determined by a mathematical formula that transforms a file key into a record location is :
(a) B-Tree File
(b) Hashed File
(c) Indexed File
(d) Sequential file.

38. If the complete execution of transactions takes the database from one consistent state to the other, then that property of the transaction is called
(a) Isolation
(b) Durability
(c) Consistency preservation
(d) None of the above

39. Consider the join of a relation R with relation S. If R has m tuples and S has n tuples, then the maximum size of join is:
(a) mn
(b) m+n
(c) (m+n)/2
(d) 2(m+n)

40. The natural join is equal to :

(a) Cartesian Product
(b) Combination of Union and Cartesian product
(c) Combination of selection and Cartesian product
(d) Combination of projection and Cartesian product

41. Which one is the correct answer for following statements
    I.   A binary lock can have three states.
    II.   Shadow paging is a recovery technique in databases.
    (a) I- True, II- False
    (b) I- True, II- True
    (c) I- False, II- False
    (d) I- False, II- True

42. _____ is a virtual table that draws its data from the result of an SQL SELECT statement.
    (a) View
    (b) Synonym
    (c) Sequence
    (d) Transaction

43. A set of possible data values is called
    (a) Attribute.
    (b) Degree.
    (c) Tuple.
    (d) Domain.

44. Time stamp can be generated by
    (a) Counter
    (b) Current date/time
    (c) both
    (d) None of the above

45. A layer-4 firewall (a device that can look at all protocol headers up to the transport layer) CANNOT
    (a) Block entire HTTP traffic during 9:00AM and 5:00PM
    (b) Block all ICMP traffic
    (c) Stop incoming traffic from a specific IP address but allow outgoing traffic to the same IP address
    (d) Block TCP traffic from a specific user on a multi-user system during 9:00 AM and 5:00PM

46. Consider different activities related to email.
    M1: Send an email from a mail client to a mail serverM2: Download an email from mailbox server to a mail client
    M3: Checking email in a web browser
    Which is the application level protocol used in each activity?
    (a) M1:HTTP M2:SMTP M3:POP

(b) M1:SMTP M2:FTP M3:HTTP

(c) M1: SMTP M2: POP M3:HTTP

(d) M1:POP M2:SMTP MM3:IMAP

47. Why are port numbers included in the TCP header of a segment?
    (a) To indicate the correct router interface that should be used to forward a segment
    (b) To identify which switch ports should receive or forward the segment
    (c) To determine which Layer 3 protocol should be used to encapsulate the data
    (d) To enable a receiving host to forward the data to the appropriate application

48. What is the purpose of the preamble in an Ethernet frame?
    (a) is used as a padding for data
    (b) is used for timing synchronization
    (c) is used to identify the source address
    (d) is used to identify the destination address

49. Which is the protocol among the following that is used for translating from physical address to Internet address?
    (a) ICMP
    (b) ARP
    (c) IGRP
    (d) RARP

50. One of the header fields in an IP datagram is the Time to Live (TTL)field. Which of the following statements best explains the need for this field?
    (a) It can be used to prioritize packets
    (b) It can be used to reduce delays
    (c) It can be used to optimize throughput
    (d) It can be used to prevent packet looping

51. Which one of the following is not a client server application?
    (a) Internet Chat
    (b) Web browsing
    (c) E-mail
    (d) Ping

52. Suppose computers A and B have IP addresses 10.105.1.113 and 10.105.1.91 respectively and they both use the same net mask N. Which of the values of N given below should not be used if A and B should belong to the same network?
    (a) 255.255.255.0
    (b) 255.255.255.128
    (c) 255.255.255.192

(d) 255.255.255.224

53. While opening a TCP connection, the initial sequence number is to be derived using a time-of-day (ToD) clock that keeps running even when the host is down. The low order 32 bits of the counter of the ToD clock is to be used for the initial sequence numbers. The clock counters increments once per millisecond. The maximum packet lifetime is given to be 64s. Which one of the choices given below is closest to the minimum permissible rate at which sequence numbers used for packets of a connection can increase?
(a) 0.015/s
(b) 0.064/s
(c) 0.135/s
(d) 0.327/s

54. Let G(x) be the generator polynomial used for CRC checking. What is the condition that should be satisfied by G(x) to detect odd number of bits in error?
(a) G(x) contains more than two terms
(b) G(x) does not divide 1+xk, for any k not exceeding the frame length
(c) 1+x is a factor of G(x)
(d) G(x) has an odd number of terms.

55. A computer on a 10Mbps network is regulated by a token bucket. The token bucket is filled at a rate of 2Mbps. It is initially filled to capacity with 16Megabits. What is the maximum duration for which the computer can transmit at the full 10Mbps?
(a) 1.6 seconds
(b) 2 seconds
(c) 5 seconds
(d) 8 seconds

56. In Ethernet when Manchester encoding is used, the bit rate is:
(a) Half the baud rate
(b) Twice the baud rate
(c) Same as the baud rate
(d) None of the above

57. There are n stations in a slotted LAN. Each station attempts to transmit with a probability p in each time slot. What is the probability that ONLY one station transmits in a given time slot?
(a) np(1-p)n-1
(b) (1-p)n-1
(c) p(1-p)n-1
(d) 1-(1-p)n-1

58. In a token ring network the transmission speed is 107 bps and the propagation speed is 200 meters/ms. The 1-bit delay in this network is equivalent to:

(a) 500 meters of cable.

(b) 200 meters of cable.

(c) 20 meters of cable.

(d) 50 meters of cable.

59. The address of a class B host is to be split into subnets with a 6- bit subnet number. What is the maximum number of subnets and the maximum number of hosts in each subnet?

(a) 62 subnets and 262142 hosts.

(b) 64 subnets and 262142 hosts.

(c) 62 subnets and 1022 hosts.

(d) 64 subnets and 1024 hosts.

60. Station A uses 32 byte packets to transmit messages to Station B using a sliding window protocol. The round trip delay between A and B is 80 milliseconds and the bottleneck bandwidth on the path between A and B is 128 kbps. What is the optimal window size that A should use?

(a) 20

(b) 40

(c) 160

(d) 320

61. Two computers C1 and C2 are configured as follows. C1 has IP address 203.197.2.53 and netmask 255.255.128.0. C2 has IP address 203.197.75.201 and netmask 255.255.192.0. which one of the following statements is true?

(a) C1 and C2 both assume they are on the same network

(b) C2 assumes C1 is on same network, but C1 assumes C2 is on a different network

(c) C1 assumes C2 is on same network, but C2 assumes C1 is on a different network

(d) C1 and C2 both assume they are on different networks.

62. Station A needs to send a message consisting of 9 packets to Station B using a sliding window (window size 3) and go-back n error control strategy. All packets are ready and immediately available for transmission. If every 5th packet that A transmits gets lost (but no acks from B ever get lost), then what is the number of packets that A will transmit for sending the message to B?

(a) 12

(b) 14

(c) 16

(d) 18

63. ATM breaks all traffic into 53-Byte cells because
  (a) 53-Byte cells are the ideal size for the voice communication
  (b) 53-Byte cells are the ideal size for data communication
  (c) 53-Byte cells are the ideal size for circuit switching
  (d) 53-Byte cells are the compromised size for both voice and data communication

64. Why is Frame Relay's throughput lower than that of ATM?
  (a) Frame Relaying have error control (ARQ) functionality but not ATM.
  (b) ATM does not need to have CRC checking/generation or bit stuffing's functionality in the packets as in Frame Relay.
  (c) Frame Relaying needs to do multiplexing of logical channels but not ATM.
  (d) Although both Frame relay and ATM have frame boundary recognition (flags), ATM doesn't have bit stuffing as in frame Relaying.

65. Which of the following is not the function of the AAL?
  (a) Cell header generation.
  (b) Handling of lost and mis inserted cell.
  (c) Handling of cell delay variation.
  (d) Segmentation and reassembly of user information.

66. Which of the following is not true about the difference of B-ISDN as compared to ISDN?
  (a) BISDN provides for communication services with very high bit rate requirements such as digital television
  (b) B-ISDN uses optical fibre cable whereas ISDN makes us of the existing infrastructure.
  (c) B-ISDN uses only packet switching whereas ISDN does not perform packet switching.
  (d) The bit rate for ISDN is prespecified unlike B-ISDN

67. Which of the following types of channels moves data relatively slowly?
  (a) Wide band channel
  (b) Voice band channel
  (c) Narrow band channel
  (d) None of the above

68. Which of the following statement is correct?
  (a) Terminal section of a synchronous modem contains the scrambler
  (b) Receiver section of a synchronous modem contains the scrambler
  (c) Transmission section of a synchronous modem contains the scrambler
  (d) Control section of a synchronous modem contains the scrambler

69. ATM is said to be a connection oriented technology. What does this mean and why is it necessary?

(a) Cells travels through the same path to the receiver. By this, cell do not have to be rearranged.

(b) Cells travels through different paths. Therefore cells can reach the receiver faster.

(c) A path is reserved exclusively for one user. Arrangement of cells is not necessary

(d) Cells are transmitted using fibre optic cables. Cells would be less susceptible to errors.

70. Which of the following is done in the physical layer of the ATM network?
 (a) Cell multiplexing and demultiplexing.
 (b) Generic flow control
 (c) Transmission frame generation/recovery
 (d) Monitoring of the user information field for bit errors and possible corrective actions

71. How much power (roughly) a light emitting diode can couple into an optical fibre?
 (a) 100 microwatts
 (b) 440 microwatts
 (c) 100 picowatts
 (d) 10 miliwatts

72. Which of the following assertions is FALSE about the Internet Protocol (IP)?
 (a) It is possible for a computer to have multiple IP addresses
 (b) IP packets from the same source to the same destination can take different routes in the network
 (c) IP ensures that a packet is forwarded if it is unable to reach its destination within a given number of hopes
 (d) The packet source cannot set the route of an outgoing packets; the route is determined only by the routing tables in the routers on the way

73. A 2 km long broadcast LAN has 107 bps bandwidth and uses CSMA/CD. The signal travels along the wire at 2 x 108 m/s. What is the minimum packet size that can be used on this network?
 (a) 50 bytes
 (b) 100 bytes
 (c) 200 bytes
 (d) None of the above

74. Host A is sending data to host B over a full duplex link. A and B are using the sliding window protocol for flow control. The send and receive window sizes are 5 packets each. Data packets (sent only from A to B) are all 1000 bytes long and the transmission time for such a packet is 50 micro s. Acknowledgment packets (sent only from B to A) are very small and require

negligible transmission time. The propagation delay over the link is 200 micro s.. What is the maximum achievable throughput in this communication?

(a) 7.69 x 106 bps

(b) 11.11 x 106 bps

(c) 12.33 x 106 bps

(d) 15.00 x 106 bps

75. Which of the following functionalities must be implemented by a transport protocol over and above the network protocol?
   (a) Recovery from packet losses
   (b) Detection of duplicate packets
   (c) Packet delivery in the correct order
   (d) End to end connectivity

76. Which of the following is NOT true with respect to a transparent bridge and a router?
   (a) Both bridge and router selectively forward data packets
   (b) A bridge uses IP addresses while a router uses MAC addresses
   (c) A bridge builds up its routing table by inspecting incoming packets
   (d) A router can connect between a LAN and a WAN

77. How many 8-bit characters can be transmitted per second over a 9600 baud serial communication link using asynchronous mode of transmission with one start bit, eight data bits, and one parity bit?
   (a) 600
   (b) 800
   (c) 876
   (d) 1200

78. A and B are the only two stations on an Ethernet. Each has a steady queue of frames to send. Both A and B attempt to transmit a frame, collide, and A wins the first backoff race. At the end of this successful transmission by A, both A and B attempt to transmit and collide. The probability that A wins the second.
   (a) 0.5
   (b) 0.625
   (c) 0.75
   (d) 1

79. Assuming that the packets are correctly delivered, how many bytes, including headers, are delivered to the IP layer at the destination for one application message, in the best case? Consider only data packets.
   (a) 200
   (b) 220

(c) 240

(d) 260

80. Packets of the same session may be routed through different paths in
    (a) TCP, but not UDP
    (b) TCP and UDP
    (c) UDP, but not TCP
    (d) Neither TCP, nor UDP

81. The address resolution protocol (ARP) is used for
    (a) Finding the IP address from the DNS
    (b) Finding the IP address of the default gateway
    (c) Finding the IP address that corresponds to a MAC address
    (d) Finding the MAC address that corresponds to an IP address

82. Maximum window size for data transmission using the selective reject protocol with n-bit frame sequence numbers is
    (a) 2n
    (b) 2n-1
    (c) 2n - 1
    (d) 2n-2

83. In a network of LANs connected by bridges, packets are sent from one LAN to another through intermediate bridges. Since more than one path may exist between two LANs, packets may have to be routed through multiple bridges. Why is the spanning tree algorithm used for bridge routing?
    (a) For shortest path routing between LANs
    (b) For avoiding loops in the routing paths
    (c) For fault tolerance
    (d) For minimizing collisions

84. The optical fibre trans-Atlantic cable TAT-14 includes a section from Bude, Cornwall to Tuckerton, New Jersey. Determine the propagation delay if the route length is 6,254 km.
    (a) 31.27 ms.
    (b) 3.198 ms
    (c) 31.98 ms
    (d) 312.7 ms

85. A data link between the head office of a financial organization and one of its branches runs continuously at 2.048 Mbps. Between the hours of 0900 and 1700 it is noted that there are 295 bits received in error. Determine the bit error rate.
    (a) 2 x 10-7
    (b) 2. 2 x 10-10
    (c) 3. 5 x 10-9

(d) 4. 5 x 10-8

86. A block of data consisting of 2048 bits is transmitted between two computers interconnected by 450 m of twisted pair wire. If the transmission rate is 34 kbps determine a, the ratio of propagation delay to transmission delay.
   (a) 3.76 x 10-6
   (b) 376 x 10-6
   (c) 3.76 x 10-3
   (d) 37.6 x 10-6

87. The event that will not cause recalculation of the distance vector is
   (a) Discovery of a long path to a new destination
   (b) Discovery that a link to a neighbor has gone down
   (c) Receive a shorter path to an existing destination
   (d) Discovery of a longer path to an existing destination

88. The protocol data unit (PDU) for the application layer in the Inter stack is
   (a) Segment
   (b) Datagram
   (c) Message
   (d) Frame

89. While transmitting odd-parity coded symbols, the number of zeros in each symbol is
   (a) Odd
   (b) Even
   (c) A and B both
   (d) Unknown

90. Which organization has authority over interstate and international commerce in the communication field?
   (a) ITU-T
   (b) IEEE
   (c) FCC
   (d) ISOC

91. What is common between X.25 Packet switching and Fast Packet Switching
   (a) In both of them bandwidth is used only when there is something to transmit
   (b) Both supports high speed data (T1 speed and up)
   (c) Both supports sharing of the same channel to carry voice, data and video
   (d) In both of them transmit delays are low enough to handle voice traffic

92. Which one is true about ATM and Packet Switching
   (a) Both ATM and Packet switching have relatively small size cells
   (b) Packet Switching has no windowing while ATM has
   (c) Both have fixed length cells

(d) ATM has no error detection on data while Packet Switching has

93. India's Ambassador to united states of America
   (a) Mrs. Nirupma Rao
   (b) Mrs. Anupma Rai
   (c) Pradeep Kumar
   (d) Randhiv Singh

94. Which of the following is newest Nation of the World?
   (a) North Sudan
   (b) South Sudan
   (c) Sudan
   (d) Lebnan

95. Sauli Niinisto has been recently elected as the President of
   (a) Sweden
   (b) Germany
   (c) Finland
   (d) Cheli

96. Who was the Chief Guest of the India's 63rd Republic Day's celebrations.
   (a) Sheikh Hasina, Prime Minister of Bangladesh
   (b) Kamla Persad Bissessor, Prime Minister of Trinidad and Tobago
   (c) Ma-Ying-jeou. President of Taiwan
   (d) Mrs. Yingluk Shinawatra, Prime Minister of Thailand

97. NRI Kamla Persad Bissessar, Prime Minister of Trinidad and Tobago has her ancestral roots in villages in;
   (a) Nalanda, Bihar
   (b) Pushkar, Rajasthan
   (c) Buxar, Bihar
   (d) Hissar, Haryana

98. A number is smaller than its 4/3 by 17, what is the number ?
   (a) 51
   (b) 34
   (c) 17
   (d) 68

99. All artist are whimsical.
   All drug addicts are whimsical.
   Some crazy people are drug addict so,
   (a) Some artist are drug addict.
   (b) Some artist are not drug addict
   (c) Some crazy people are whimsical
   (d) Some crazy people are artist.

100. A Cow has 4 legs & a Hen has 2 legs. If there are a total of 60 legs for a group of Cows & Hens than the confirmed number of Cows & Hens in the group are :

(a) 10 Cows, 10 Hens.

(b) 10 Cows, 15 Hens.

(c) 15 Cows, 5 Hens.

(d) Data is insufficient to confirm number of Cows & Hens in the group.

PROGRAMMER EXAM : 2011 : ANSWER KEY : PAPER -I

QUESTION	ANSWER	QUESTION	ANSWER	QUESTION	ANSWER
1.	(a)	41.	(d)	81.	(d)
2.	(c)	42.	(a)	82.	(b)
3.	(a)	43.	(d)	83.	(b)
4.	(d)	44.	(c)	84.	DELETE
5.	(d)	45.	(a)	85.	(c)
6.	(a)	46.	(c)	86.	(d)
7.	(b)	47.	(d)	87.	(d)
8.	(b)	48.	(b)	88.	(c)
9.	(c)	49.	(d)	89.	(d)
10.	(c)	50.	(d)	90.	(c)
11.	(b)	51.	(d)	91.	(a)
12.	(d)	52.	(d)	92.	(d)
13.	(b)	53.	DELETE	93.	(a)
14.	(a)	54.	(c)	94.	(b)
15.	DELETE	55.	(b)	95.	(c)
16.	(b)	56.	(a)	96.	(d)
17.	(b)	57.	(a)	97.	(c)
18.	(c)	58.	DELETE	98.	(a)
19.	(c)	59.	DELETE	99.	(c)
20.	(b)	60.	(b)	100.	(d)
21.	(c)	61.	DELETE		
22.	DELETE	62.	(c)		
23.	(a)	63.	(d)		
24.	(b)	64.	(b)		
25.	(a)	65.	(a)		
26.	(c)	66.	(c)		
27.	(b)	67.	(c)		
28.	(d)	68.	(c)		
29.	(a)	69.	(a)		
30.	DELETE	70.	(c)		
31.	(c)	71.	(a)		
32.	(a)	72.	(d)		
33.	(a)	73.	(c)		
34.	(a)	74.	DELETE		
35.	(c)	75.	(d)		
36.	(d)	76.	(b)		
37.	(b)	77.	DELETE		
38.	(c)	78.	(a)		
39.	(a)	79.	(d)		
40.	(d)	80.	(b)		

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK