QUESTION BOOKLET AND ANSWER KEY FOR RECRUITMENT TEST OF Manager (Information & Technology) Code 2.3 HELD ON 13.11.2011

1. ਅੱਖਿਆਂ ਵਿਚ—————————ਅਖਾਣ ਪੂਰਾ ਕਰੋ :
   (A) ਬੋਲੇ ਰਾਜੇ   (B) ਲੰਗੜੇ ਰਾਜੇ   (C) ਕਾਣਾ ਰਾਜਾ   (D) ਬੇਈਮਾਨ ਰਾਜਾ

2. ਸੰਬੰਧਕ ਚੁਣੋ :
   (A) ਮੈਂ, ਸਾਡਾ   (B) ਤੂੰ, ਤੁਸੀਂ   (C) ਦਾ, ਦੇ   (D) ਕੌਣ, ਕਦੋਂ

3. ਮਾਝੀ ਕਿਸ ਜਿਲ੍ਹੇ ਵਿੱਚ ਬੋਲੀ ਜਾਂਦੀ ਹੈ :
   (A) ਅੰਮ੍ਰਿਤਸਰ   (B) ਪਟਿਆਲਾ   (C) ਜਲੰਧਰ   (D) ਫ਼ਰੀਦਕੋਟ

4. ਕਰਨਾ, ਖਾਣਾ, ਲਿਖਣਾ ਕੀ ਹਨ :
   (A) ਨਾਂਵ   (B) ਵਿਸ਼ੇਸ਼ਣ   (C) ਪੜਨਾਂਵ   (D) ਕਿਰਿਆਵਾਂ

5. ਹੇਠ ਲਿਖੇ ਸ਼ਬਦਾਂ ਵਿੱਚੋਂ ਇੱਕ ਵਚਨ ਚੁਣੋ :
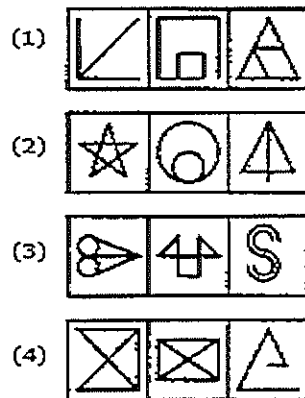   (A) ਫਲ   (B) ਫਰਨੀਚਰ   (C) ਮੁੰਡੇ   (D) ਘੋੜਾ

Directions:- Q. Nos. 6-8 Choose the correct preposition to be filled in the blanks.

6. Mohan's allegiance .... Marxism has been questioned by his friends.
   A) to   B) for   C) with   D) by

7. You may not draw any inference .... this story
   A) to   B) from   C) by   D) for

8. Everybody is prone .... error.
   A) in   B) by   C) to   D) with

Directions:- Q. Nos. 9-10:- Choose the correct meaning of the idioms/phrases.

9. to flog a dead horse.
   A) to be enthusiastic   B) to deceive someone
   C) to repeat one's action   D) to waste energy

10. Hobson's choice
    A) virtually no choice   B) abundance of choices
    C) conditional choice   D) choice made by Hobson

11. TRAI stands for?
    A) Telecom Re-establishment At India
    B) Telecom Regulator Answerable to India
    C) Telecom Regulation at Airport in India
    D) Telecom Regulatory Authority of India

12. Who is original developer of Linux, the free Unix clone on the PC?
    A) Bill Gates   B) Linus Torvalds   C) Dennis Ritchie   D)Richard Stallman

13. Who is considered the "father" of World Wide Web?
    A) Ted Nelson   B) Bill Gates   C) Tim Berners-Lee   D) Narayan Murthy

14. IC chips used in computers are usually made of
    A) Lead   B) Silicon   C) Chromium   D) Phosphorous

15. What is laughing gas?
   A) Nitrous Oxide
   C) Sulphur dioxide
   B) Carbon monoxide
   D) Hydrogen peroxide

16. The purpose of choke in tube light is?
   A) To decrease the current
   C) To decrease the voltage momentarily
   B) To increase the current
   D) To increase voltage momentarily

17. Amnesty International is an organisation associated with which of the following fields?
   A) Protection of Cruelty to animals
   C) Protection of human rights
   B) Environment protection
   D) Protection of historic monuments

18. The headquarters of International Atomic Energy Agency is located in
   A) Vienna   B) London   C) Geneva   D) Washington

19. Which scientist discovered the radioactive element radium?
   A) Isaac Newton   B) Albert Einstein   C) Benjamin Franklin   D) Marie Curie

20. The imaginary line on the earth's surface, which closely follows the 180 Å° meridian, is called the
   A) International Date Line
   C) Equator
   B) Tropic of Cancer
   D) Prime Meridian

21. Choose the set of figures which follows the given rule.
   Rule: Any figure can be traced by a single unbroken line without retracting.

   A) 1   B) 2   C) 3   D) 4

Answer Question number 22 and 23 based on:
   Ravi is son of Aman's father's sister. Sahil is son of Divya who is mother of Gaurav and grandmother of Aman. Ashok is father of Tanya and grandfather of Ravi. Divya is wife of Ashok.

22. How is Ravi related to Divya?
   A) Nephew   B) Grandson   C) Son   D) Data Inadequate

23. How is Gaurav's wife reated to Tanya?
   A) Niece   B) Sister   C) Sister-in-Law   D) None of the above

24. A monkey climbs 30 feet at the beginning of each hour and rests for a while when he slips back 20 feet before he again starts climbing in the beginning of next hour. If he begins his ascent at 8.00 a.m. at what time will he first touch a flag 120 feet from ground.
   A) 4 p.m. B) 5 p.m. C) 6 p.m . D) None of above

25. Find the next term in the series:- 9,27,31, 155, 161, 1127
   A) 316 B) 1135 C) 1288 D) 2254

26. As 'Circle' is related to 'Circumference' in the same way 'Square' is related to what?
   A) Perimeter B) Diagonal C) Area D) Angle

27. Manoj walked 10 m towards West from his house. Then he walked 5 m turning to his left. After this he walked 10 m turning to his left and in the end he walked 10 m turning to his left. In what direction is he now from his starting point?
   A) North B) South C) East D) West

28. Assume that the following statements are true
   Statements: Some saints are Faquirs.
                No Faquir is King.
   Conclusions: I. Some saints are kings.
                 II. No saint is king.
   Find out which conclusions follow the given statements.
   A) Only I B) Both I and II C) Only II D) Neither I nor II

29. If the numbers between 4 to 90, which are divisible by 5 and contain 5 in the unit, tenth or both place, are removed, then how many numbers divisible by 5 will be left?
   A) 7 B) 8 C) 18 D) 12

30. Every body in a room shakes hands with everybody else. The total number of handshakes is 66. The total number of persons in the room is:
   A) 11 B) 12 C) 13 D) 14

31. In UNIX operating system, command used for backups and achieves is
   A) Tar B) Backup C) Archieve D) None of Above

32. In UNIX operating system chmod 654 stands for
   A) rw----r-- B) r--r--r-- C) r--rw-r-- D) rw-rw-r--

33. The cyclomatic complexity metric provides the software designer with information regarding the number of
   A) Cycles in the program
   B) Independent logic paths in the program
   C) Errors in the program
   D) Statements in the program

34. The spiral model of software development
   A) Ends with delivery of software product
   B) Is more chaotic than incremental model
   C) Includes project risks evaluation during each iteration
   D) Risky model that rarely produces a meaningful product

35. Holographic storage is based on
A) Magnetic storage techniques   B) Laser storage techniques
C) Optical storage techniques   D) Flash memory

36. With SQL, how can you return the number of records in the "Persons" table?
A) SELECT COLUMNS(*) FROM Persons
B) SELECT COLUMNS() FROM Persons
C) SELECT COUNT() FROM Persons
D) SELECT COUNT(*) FROM Persons

37. Which operator performs the pattern matching?
A) AS operator   B) LIKE Operator   C) SELECT Operator   D) None of above

38. Order the following list by their asymptotic growth, (i.e., put them in order, fastest to slowest.)
(i) n (ii) n^n (iii) $\log n$ (iv) $n!$ (v) $n \log(n)$
A) iii -- i -- v -- iv -- ii   B) ii -- i -- v -- iv -- iii
C) iii -- i -- v -- ii -- iv   D) iii -- v -- i -- iv -- ii

39. Cookies were designed as a response to which problem in the original design of HTML and HTTP?
A) Lack of privacy and confidentiality in viewing web-pages
B) Inequality if information between clients and servers
C) The open and distributed nature of the Internet
D) Persistence of state between web-sessions

40. If a table, sales, has a column filled with all the names of the Indian states and you want to find all states that have an "P" somewhere in its name, you can do that via this SQL command:
A) Select * from sales where state like '%P%';
B) Select * from sales where state = '%P%';
C) Select * from sales where state like 'P%';
D) Select * from sales where state = 'P';

41. Which one of the following uses the correct syntax to include an applet called ButtonText in an HTML page?
A) <P><APPLET = "ButtonText.java" WIDTH = 300 HEIGHT = 250></P>
B) <P><APPLET CODE = "ButtonText.java" WIDTH = 300 HEIGHT = 250></P>
C) <P><APPLET CODE = "ButtonText.class" WIDTH = 300 HEIGHT = 250></P>
D) <P><APPLET = "ButtonText.class" WIDTH = 300 HEIGHT = 250></P>

42. Which process in database design has as a purpose the elimination of data redundancy and the avoidance of update anomalies?
A) Hierarchical representation   B) Normalization
C) Data warehousing   D) Entity relationship modeling

43. Consider the following function in C:
```
sample(int d)
{
        if (d == 0) return 0;
        else return d += sample(d - 1);
}
```
When above function is called with a non-zero positive value, it always returns value of
A) d   B) d - 1   C) d * (d + 1) / 2   D) Zero

44. A virtual relation composed of columns from one or more related relations is called a/an:
   A) Index   B) View   C) Relational map   D) Base table

45. Coupling is a qualitative indication of the degree to which a module
   A) Can be written more compactly
   B) Is connected to other modules and outside world
   C) Is able to complete its function in a timely manner
   D) Focuses on just one thing

46. Web Services are a means of...
   A) Improving security through encryption technology
   B) Distributing program functions through remote procedure calls
   C) Developing customer loyalty through improved technology
   D) Employing Java through the Web

47. Match the following:
   a) HTML   (i) Protocol for sending electronic mail on the Internet.
   b) HTTP   (ii) Company that charges a fee to enable organizations to connect to Internet
   c) ISP   (iii) Set of tags and related rules that are used to create web pages.
   d) SMTP   (iv) Internet standard that supports exchange of information on Web.

   A) a)-(iv) b)-(i) c)- (ii) d)-(iii)   B) a)-(iv) b)-(i) c)- (iii) d)-(ii)
   C) a)-(iii) b)-(ii) c)- (iv) d)-(i)   D) a)-(iii) b)-(iv) c)- (ii) d)-(i)

48. Which of the following is FALSE?
   A) ASCII is a fixed-length code
   B) A Java compiler converts class definitions written in the Java programming language into byte-codes that are hardware-independent
   C) Java is an object-oriented programming language that supports class variables, class methods, instance variables, instance methods, and multiple inheritance
   D) There are 256 different sequences, or arrangements, of length 8-bit that can be represented by a byte.

49. Which term matches the following definition? The art and science of hiding secret messages within some other form that is usually visible or out in the open for anyone to see if they knew where to look.
   A) Encryption   B) Digital watermarking
   C) Digital Signature   D) Stenography

The questions (50)-(51) concern the following database:
   MANUFACTURER(ManufacturerID, Name, Address, City, State, Zip)
   PRODUCT(ManufacturerID, ModelNumber, Description, Weight, Price)
   ManufacturerID foreign key to MANUFACTURER

50. In the database immediately above, the relationship between MANUFACTURER and PRODUCT is best described as _____.
   A) One-to-many, with MANUFACTURER as the "one"
   B) One-to-many, with MANUFACTURER as the "many"
   C) Many-to-many
   D) Not allowed. If the primary key and a foreign key overlap, they must be identical.
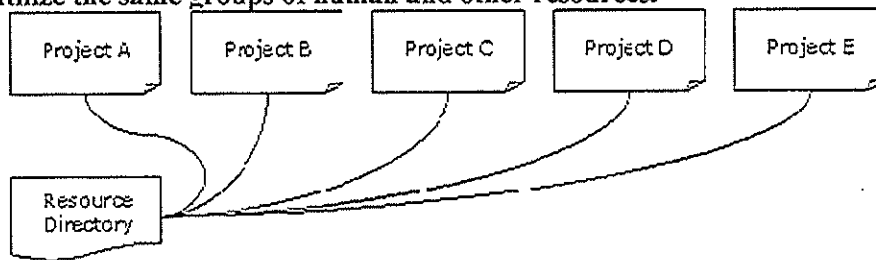
51. In the database immediately above, the table PRODUCT _____ .
   A) Has two primary keys, ManufacturerID and ModelNumber
   B) Has as single composite primary key consisting of the fields ManufacturerID and ModelNumber – a table has only one primary key, but it can be a composite of multiple fields
   C) Has two candidate keys
   D) Has an improperly constructed primary key. If the primary key and a foreign key overlap, they must be identical.

52. Select the most appropriate data structure to implement the storage of the addresses of recently visited web sites in a Web Browser for the operation of "Back" button.
   A) Queue   B) Link List   C) Array   D) Stack

53. Suppose instead of using 16 bits for the network part of a class B address, 20 bits have been used. How many class B sub-networks will be there?
   A) 16   B) 20   C) 14   D) 256

54. IPv6 address is _____ bits long.
   A) 16   B) 32   C) 64   D) 128

55. Assume that you want to retrieve a web page that has 6 images and 1 Java applet. The Java applet retrieves 3 more images before it can run. How many RTT's must be sent when using non-persistent HTTP before this web page can be fully viewed?
   A) 22   B) 11   C) 44   D) 01

56. If a switch has 24 ports, each with a maximum line speed of 100Mbps, how fast (minimum) does the switching fabric need to be in order to prevent queuing/blocking for full duplex operation?
   A) 4.8 Gbps   B) 2.4 Gbps   C) 100 Mbps   D) 200 Mbps

57. A voice channel takes 30 KHz including a guard band that provides protection against small drifts in transmission frequency. If we divide listening area into hexagonal cells, so that no two adjacent cells use the same frequency bands, how many calls can the 25-MHz spectrum support in a city with 250 cells?
   A) 833   B) 7500   C) 29750   D) 50000

58. What is the correct HTML for referring to an external style sheet?
   A) <link rel="stylesheet" type="text/css" href="mystyle.css">
   B) <style src ="mystyle.css">
   C) <external>mystyle.css</external>
   D) <stylesheet>mystyle.css</stylesheet>

59. With SQL, how can you insert "Singh" as the "LastName" in the "Persons" table?
   A) INSERT ('Singh') INTO Persons (LastName)
   B) INSERT INTO Persons (LastName) VALUES ('Singh')
   C) INSERT INTO Persons (LastName) 'Singh'
   D) INSERT INTO Persons ('Singh') INTO LastName

60. In some systems, when there is no more free memory, the system automatically determines what is in use and reorganizes memory so that the available memory is in one big contiguous block. What is this process called?
A) Garbage Collection   B) Formatting   C) Linking   D) Memory Leak

61. In Java, if you wish to change an applet's background color dynamically, what method must be called to make this change visible?
A) repaint()   B) setBackground()   C) restart()   D) stop()

62 Consider the following pseudo-code:
```
        GET num
        IF num is less than 0
              THEN REPORT –1
              ELSE  WHILE num is greater than 1
                         SUBTRACT 2 from num
        REPORT num
```
A) This algorithm will output –1 if the user enters a negative number and outputs 2 less than the input number otherwise
B) This algorithm will report –1 if the input number is negative, 0 if the input is both even and positive and 1 if it is both odd and positive
C) This algorithm will report –1 if the input is negative and nothing otherwise
D) This algorithm will report 0 as the output

63. Consider the tables T1(EMPLOYEE_ID,EMP_NAME) and T2(PRODUCT_ID,PRODUCT_NAME, EMP_ID). Query to find out those employees who have ordered "printers".
A) Select EMP_NAME from T1 where T1.EMPLOYEE_ID=T2.EMP_ID and PROD_NAME='printer'
B) Select EMP_NAME from T2 where T1.EMPLOYEE_ID=T2.EMP_ID and PROD_NAME='printer'
C) Select EMP_NAME from T1, T2 where PROD_NAME='printer'
D) Select EMP_NAME from T1, T2 where T1.EMPLOYEE_ID=T2.EMP_ID and PROD_NAME='printer'

64. Suppose one IPv6 router wants to send a datagram to another IPv6 router, but the two are connected together via an intervening IPv4 router. If the two routers use tunneling, then:
A) the sending IPv6 router creates an IPv4 datagram and puts it in the data field of an IPv6 datagram.
B) the sending IPv6 router creates one or more IPv6 fragments, none of which is larger than the maximum size of an IPv4 datagram
C) the sending IPv6 router creates an IPv6 datagram and puts it in the data field of an IPv4 datagram.
D) the sending IPv6 router creates an IPv6 datagram and intervening IPv4 router will reject the IPv6 datagram

65. To host a web site which of following is required:
A) Web Server   B) Exchange Server
C) Mail Server   D) Database Server

66. Optical fiber is one of the most attractive physical layer media to use for high speed networks because:
A) it offers immense transmission bandwidth
B) it has extremely low error rates
C) it can cover relatively large geographic distances before requiring repeaters
D) All of the above

67. ICANN is:
A) Name of corporation for assigning names & numbers to different domains
B) Organization for setting up rules to operate Internet
C) Organization to provide security to services
D) For making network administration more manageable

68. Find the class of IP address: 129.6.8.4
A) Class A   B) Class B   C) Class C   D) Class D

69. Which of the following is correct statement?
A) 1's complement can have two zero representations
B) 2's complement represent an extra negative number
C) 1's complement is not useful for logical operations
D) 2's complement can be formed by changing 1's into 0's and 0's into 1's.

70. Find the closest number of comparisons using binary search method required to search 1000 in array A={19, 25, 30, 35, 37, 45, 52, 69, 900}
A) 4   B) 9   C) 0   D) Binary Search cannot be performed

71. The conditions immediately outside the software system is called
A) the boundary   B) the graphical user interface
C) the environment   D) None of the Above

72. How can you make an e-mail link in HTML?
A) <mail>xxx@yyy</mail>   B) <mail href="xxx@yyy">
C) <a href="xxx@yyy">   D) <a href="mailto:xxx@yyy">

73. DNS servers translates web addresses or host names to :
A) MAC address   B) FTP address   C) IP address   D) Host Name

74. What is the result of the following SQL statement ?
SELECT A.Employee_Name, B.Spouse_Name FROM Employee A LEFT OUTER JOIN Spouse B ON A.Employee_ID = B.Employee_ID
A) A list of all employees' names, including the name of their spouse if they have one
B) A list of all employees that have spouses, with spouse names included in the list
C) A list of employees' spouses
D) Two lists: One list of employees, the other of spouses

75. A program is written to turn on/off a switch. The Switch is switched off once the temperature falls below 18 and then it is turned on when the temperature is more than 21. To test this program, identify the Equivalence values which belong to the same class.
A) 12,16,22   B) 24,27,17   C) 22,23,24   D) 14,15,19

76. Which of the following items would not come under Configuration Management of software?
A) live data
B) test documentation
C) operating systems
D) user requirement document

77. Testing activity which is performed to expose defects in the interfaces and in the interaction between integrated components is :-
A) System Level Testing
B) Integration Level Testing
C) Unit Level Testing
D) Component Testing

78. A Type of functional Testing, which investigates the functions relating to detection of threats, such as virus from malicious outsiders.
A) Security Testing
B) Recovery Testing
C) Performance Testing
D) Functionality Testing

79. Which of the following is the task of a Tester?
i. Interaction with the Test Tool Vendor to identify best ways to leverage test tool on the project.
ii. Prepare and acquire Test Data
iii. Implement Tests on all test levels, execute and log the tests.
iv. Create the Test Specifications

A) i, ii, iii is true and iv is false
B) ii,iii,iv is true and i is false
C) i is true and ii,iii,iv are false
D) iii and iv is correct and i and ii are incorrect

80. A document called _____ is created by decomposing the project scope into smaller, more manageable elements.
A) Scope Statement
B) Network Logic Diagram
C) Work Breakdown Structure
D) Requested Change

81. Which should be included in a Requirements management plan?
A) The document should trace requirements to project scope / WBS deliverables.
B) It should describe how requirements activities will be planned, tracked, and reported.
C) It should trace high-level requirements to more detailed requirements.
D) It should trace requirements to business needs, opportunities, goals, and objectives.

82. Which of the following becomes increasingly important in a virtual team environment?
A) Requirements engineering
B) Communication planning
C) Formal procurements closure
D) Network diagramming

83. In a software company a large number of simultaneously performed projects utilize the same groups of human and other resources.

What is the term commonly used for this situation?
A) Concurrent engineering
B) Resource over-allocation
C) Resource pooling
D) Program management

84. Back-up procedure helps in
A) restoring the operation whenever there is a disk failure
B) restoring both application and system software whenever there is disk corruption.
C) restoring the data files whenever there is a system crash
D) All of the above

85. Data Definition Language (DDL)
A) describes how data are structured in the data base
B) specifies for the DBMS what is required; the techniques used to process data
C) determine how data must be structured to produce the user's view
D) All of the above

86. Bug manes
A) A logical error in a program
B) A difficult syntax error in a program
C) Documenting programs using an efficient documentation tool
D) All of the above

87. Goals for the design of the logical schema include
A) avoiding data inconsistency
B) being able to construct queries easily
C) being able to access data efficiently
D) All of the above

88. Which is the easiest component to environmentally recycle?
A) Motherboards
B) CMOS batteries
C) Toner cartridges
D) Cathode ray tubes

89. RS-232 is a standard that applies to?
A) Parallel port
B) Serial port
C) Game port
D) All of above

90. All of the following are types of communication and collaboration done in real time EXCEPT:
A) blogging
B) webinars
C) instant messaging
D) VoIP

91. Web analytics, mining tools and services:
A) simply report which pages were clicked and how long a visitor stayed there.
B) offer advanced functions that help marketers decide which products to promote, and merchandisers achieve a better understanding of the nature of demand.
C) are used to redesign Web sites quickly and on the fly.
D) provide information to update website.

92. White box testing can be started
   A) After SRS creation   B) After Installation
   C) After Programming   D) Anytime in SDLC

93. In a HTML page, <TITLE> ... </TITLE> tag must be within _____
   A) Title   B) Form   C) Header   D) Body

94. Identity theft is the
   A) impersonation by a thief of someone with a large bank account
   B) impersonation by a thief of someone with computer skills
   C) impersonation by a thief of someone with good credit
   D) impersonation by a thief of someone's identity for purpose of economic/ social gain

95. An attempt to slow down or stop a computer system or network by flooding the system with requests for information is called a
   A) virus   B) worm   C) denial-of-service attack   D) Trojan horse

96. Which of the following would best fit the following description – software is copied and given to a friend without the permission of the copyright owner?
   A) freeware   B) piracy   C) shareware   D) public domain

97. A Green PC
   A) uses no energy
   B) uses less energy than older PCs
   C) uses less energy than any other office device
   D) represents the most energy-efficient PC possible

98. Print server uses _____ which is a buffer that holds data before it is send to the printer.
   A) Queue   B) Spool   C) Node   D) UPS

99. Which of the following will indicate that the motherboard battery has failed?
   A) Operating System Password lost.
   B) Files on hard disk got corrupted.
   C) Hard disk has bad sectors.
   D) Hardware setting, including current date and time revert to default values.

100. You wish to install a hardware device that is not Plug and Play. Which of the following is commonly the first instruction given to install this device?
   A) Install the driver   B) Install the device
   C) Turn the power off   D) Disconnect the monitor

****

				Key 2.3			
Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.
1	C	26	A	51	B	76	A
2	C	27	B	52	D	77	B
3	A	28	D	53	C	78	A
4	D	29	B	54	D	79	B
5	D	30	B	55	A	80	C
6	A	31	A	56	A	81	B
7	B	32	D	57	C	82	B
8	C	33	B	58	A	83	C
9	D	34	C	59	B	84	D
10	A	35	B	60	A	85	A
11	D	36	D	61	A	86	A
12	B	37	B	62	B	87	D
13	C	38	A	63	D	88	C
14	B	39	D	64	C	89	B
15	A	40	A	65	A	90	A
16	D	41	C	66	D	91	B
17	C	42	B	67	A	92	B
18	A	43	C	68	B	93	C
19	D	44	B	69	A	94	D
20	A	45	B	70	A	95	C
21	B	46	B	71	C	96	B
22	B	47	D	72	D	97	B
23	C	48	C	73	C	98	B
24	C	49	D	74	B	99	D
25	B	50	A	75	C	100	C