
FUNDAMENTALS OF COMPUTERS

QUESTION BANK & ANSWER KEY

1. The term ‘Computer’ is derived from.....
 - a. Latin
 - b. German
 - c. French
 - d. Arabic
2. Who is the inventor of “Difference Engine”?
 - a. Allen Turing
 - b. Charles Babbage
 - c. Simur Cray
 - d. Augusta Adaming
3. Who is the father of Computer?
 - a. Allen Turing
 - b. Charles Babbage
 - c. Simur Cray
 - d. Augusta Adaming
4. Who is the father of Computer science?
 - a. Allen Turing
 - b. Charles Babbage
 - c. Simur Cray
 - d. Augusta Adaming
5. Who is the father of personal computer?
 - a. Edward Robert
 - b. Allen Turing
 - c. Charles Babbage
 - d. None of these
6. A CPU contains
 - a. a card reader and a printing device
 - b. an analytical engine and a control unit
 - c. a control unit and an arithmetic logic unit
 - d. an arithmetic logic unit and a card reader
7. Which of the following controls the process of interaction between the user and the operating system?
 - a. User interface
 - b. Language translator
 - c. Platform
 - d. Screen saver
8. The first computers were programmed using
 - a. assembly language
 - b. machine language
 - c. source code
 - d. object code

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9.is a combination of hardware and software that facilitates the sharing of information between computing devices.
- a. network b. peripheral c. expansion board d. digital device
10. Coded entries which are used to gain access to a computer system are called
- a. Entry codes b. Passwords c. Security commands d. Code words
11. Which of the following statements is true ?
- a. Minicomputer works faster than Microcomputer
- b. Microcomputer works faster than Minicomputer
- c. Speed of both the computers is the same
- d. The speeds of both these computers cannot be compared with the speed of advanced
12. You organize files by storing them in
- a. archives b. folders c. indexes d. lists
13. What type of resource is most likely to be a shared common resource in a computer Network?
- a. Printers b. Speakers c. Floppy disk drives d. Keyboards
14. Which device is required for the Internet connection?
- a. Joystick b. Modem c. CD Drive d. NIC Card
15. What is a light pen?
- a. A Mechanical Input device b. Optical input device
- c. Electronic input device d. Optical output device
16. UNIVAC is
- a. Universal Automatic Computer b. Universal Array Computer
- c. Unique Automatic Computer d. Unvalued Automatic Computer
17. CD-ROM stands for
- a. Compactable Read Only Memory b. Compact Data Read Only Memory
- c. Compactable Disk Read Only Memory d. Compact Disk Read Only Memory
18. ALU is
- a. Arithmetic Logic Unit b. Array Logic Unit
- c. Application Logic Unit d. None of above
19. VGA is
- a. Video Graphics Array b. Visual Graphics Array
- c. Volatile Graphics Array d. Video Graphics Adapter
20. IBM 1401 is
- a. First Generation Computer b. Second Generation Computer
- c. Third Generation Computer d. Fourth Generation Computer

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21. MSI stands for
- a. Medium Scale Integrated Circuits
 - b. Medium System Integrated Circuits
 - c. Medium Scale Intelligent Circuit
 - d. Medium System Intelligent Circuit
22. The capacity of 3.5 inch floppy disk is
- a. 1.40 MB
 - b. 1.44 GB
 - c. 1.40 GB
 - d. 1.44 MB
23. WAN stands for
- a. Wap Area Network
 - b. Wide Area Network
 - c. Wide Array Net
 - d. Wireless Area Network
24. MICR stands for
- a. Magnetic Ink Character Reader
 - b. Magnetic Ink Code Reader
 - c. Magnetic Ink Cases Reader
 - d. None
25. EBCDIC stands for
- a. Extended Binary Coded Decimal Interchange Code
 - b. Extended Bit Code Decimal Interchange Code
 - c. Extended Bit Case Decimal Interchange Code
 - d. Extended Binary Case Decimal Interchange Code
26. Which of the following is a part of the Central Processing Unit?
- a. Printer
 - b. Key board
 - c. Mouse
 - d. Arithmetic & Logic unit
27. CAD stands for
- a. Computer aided design
 - b. Computer algorithm for design
 - c. Computer application in design
 - d. Computer analogue design
28. Junk e-mail is also called
- a. spam
 - b. spoof
 - c. sniffer script
 - d. spool
29. Hackers
- a. all have the same motive
 - b. break into other people's computers
 - c. may legally break into computers as long as they do not do any damage
 - d. are people who are allergic to computers
30. What type of computers are client computers (most of the time) in a client-server system?
- a. Mainframe
 - b. Mini-computer
 - c. Microcomputer
 - d. PDA
31. A computer cannot 'boot' if it does not have the
- a. Compiler
 - b. Loader
 - c. Operating System
 - d. Assembler
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32. The amount of vertical space between lines of text in a document is called
- double-space
 - line spacing
 - single space
 - vertical spacing
33. Example of non-numeric data is
- Employee address
 - Examination score
 - Bank balance
 - All of these
34. What is embedded system?
- The programme which arrives by being wrapped in box.
 - The programme which is the permanent part of the computer
 - The computer which is the part of a big computer
 - The computer and software system that control the machine
35. First page of Website is termed as-
- Homepage
 - Index
 - JAVA script
 - Bookmark
36. Is the appearance of typed characters?
- Size
 - Format
 - Point
 - Colour
37. When a file is saved for the first time
- a copy is automatically printed
 - it must be given a name to identify it
 - it does not need a name
 - it only needs a name if it is not going to be printed
38. Office LANS, which are scattered geographically on large scale, can be connected by the use of corporate
- CAN
 - LAN
 - DAN
 - WAN
39. Where are data and programme stored when the processor uses them?
- Main memory
 - Secondary memory
 - Disk memory
 - Programme memory
40. represents raw facts, where-as..... is data made meaningful.
- Information, reporting
 - Data, information
 - Information, bits
 - Records, bytes
41. What characteristic of read-only memory (ROM) makes it useful?
- ROM information can be easily updated.
 - Data in ROM is non-volatile, that is, it remains there even without electrical power.
 - ROM provides very large amounts of inexpensive data storage.
 - ROM chips are easily swapped between different brands of computers.
42. What do you call the programs that are used to find out possible faults and their causes?
- operating system extensions
 - cookies
 - diagnostic software
 - boot diskettes

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43. Which programming languages are classified as low level languages?
- a. BASIC, COBOL, Fortran
 - b. Prolog
 - c. C, C++
 - d. Assembly languages
44. Which of the following is not anti- viruses' software?
- a. NAV
 - b. F-Prot
 - c. Oracle
 - d. McAfee
45. Which device is required for the Internet connection?
- a. Joystick
 - b. Modem
 - c. CD Drive
 - d. NIC Card
46. What does DMA stand for?
- a. A. Distinct Memory Access
 - b. Direct Memory Access
 - c. Direct Module Access
 - d. Direct Memory Allocation
47. Which of the following is a storage device?
- a. Tape
 - b. Hard Disk
 - c. Floppy Disk
 - d. All of the above
48. When did John Napier develop logarithm?
- a. 1416
 - b. 1614
 - c. 1641
 - d. 1804
49. A normal CD- ROM usually can store up to _____ _data?
- a. 680 KB
 - b. 680 Bytes
 - c. 680 MB
 - d. 680 GB
50. MIS is designed to provide information needed for effective decision making by?
- a. Consumers
 - b. Workers
 - c. Foremen
 - d. Managers
51. What is a light pen?
- a. Mechanical Input device
 - b. Optical input device
 - c. Electronic input device
 - d. Optical output device
52. BCD is
- a. Binary Coded Decimal
 - b. Bit Coded Decimal
 - c. Binary Coded Digit
 - d. Bit Coded Digit
53. ASCII stands for
- a. American Stable Code for International Interchange
 - b. American Standard Case for Institutional Interchange
 - c. American Standard Code for Information Interchange
 - d. American Standard Code for Interchange Information

76. The system unit of a personal computer typically contains all of the following except:
a. Microprocessor b. Disk controller c. Serial interface d. Modem
77. A computer program that converts an entire program into machine language is called a/an
a. Interpreter b. Simulator c. Compiler d. Commander
78. A computer program that translates one program instructions at a time into machine language is called a/an
a. Interpreter b. CPU c. Compiler d. Simulator
79. A small or intelligent device is so called because it contains within it a
a. Computer b. Microcomputer c. Programmable d. Sensor
80. A fault in a computer program which prevents it from working correctly is known as
a. Boot b. Bug c. Biff d. Strap
81. A self replicating program, similar to a virus which was taken from a 1970s science fiction novel by John Bruner entitled the Shockwave Rider is
a. Bug b. Vice c. Lice d. Worm
82. A state. is a bi-stable electronic circuit that has
a. Multivibrator b. Flip-flop c. Logic gates d. laten
83. Unwanted repetitious messages, such as unsolicited bulk e-mail is known as
a. Spam b. Trash c. Calibri d. Courier
84. DOS stands for
a. Disk Operating System b. Disk operating session
c. Digital Operating System d. Digital Open system
85. Who is the chief of Microsoft
a. Babbage b. Bill Gates c. Bill Clinton d. none of these
86. Which of the following are input devices?
a. Keyboard b. Mouse c. Card reader d. Any of these
87. Examples of output devices are
a. Screen b. Printer c. Speaker d. All of these
88. Which of the following is also known as brain of computer
a. Control unit b. Central Processing unit
c. Arithmetic and language unit d. Monitor
89. IBM stands for
a. Internal Business Management b. International Business Management
c. International Business Machines d. Internal Business Machines
90. translates and executes program at run time line by line
a. Compiler b. Interpreter
c. Linker d. Loader

91. is an OOP principle
- a. Structured programming
 - b. Procedural programming
 - c. Inheritance
 - d. Linking
92. COBOL is widely used in application s
- a. Commercial
 - b. Scientific
 - c. Space
 - d. Mathematical
93. RAM stands for
- a. Random origin money
 - b. Random only memory
 - c. Read only memory
 - d. Random access memory
94. 1 Byte =?
- a. 8 bits
 - b. 4 bits
 - c. 2 bits
 - d. 9 bits
95. SMPS stands for
- a. Switched mode Power Supply
 - b. Start mode power supply
 - c. Store mode power supply
 - d. Single mode power supply
96. The device used to carry digital data on analogue lines is called as
- a. Modem
 - b. Multiplexer
 - c. Modulator
 - d. Demodulator
97. VDU is also called
- a. Screen
 - b. Monitor
 - c. Both 1 & 2
 - d. printer
98. BIOS stands for
- a. Basic Input Output system
 - b. Binary Input output system
 - c. Basic Input Off system
 - d. all the above
99. Father of ‘C’ programming language
- a. Dennis Ritchie
 - b. Prof John Keenly
 - c. Thomas Kurtz
 - d. Bill Gates
100. The instructions that tell a computer how to carry out the processing tasks are referred to as computer.....
- a. programs
 - b. processors
 - c. input devices
 - d. memory modules
101. An area of a computer that temporarily holds data waiting to be processed is.....
- a. CPU
 - b. Memory
 - c. Storage
 - d. File
102. is the key to close a selected drop -down list; cancel a command and close a dialog box.
- a. TAB
 - b. SHIFT
 - c. ESC
 - d. F10
103. is the key we use to run the selected command.
- a. SHIFT
 - b. TAB
 - c. ENTER
 - d. CTRL
104. Is the functional key to display save-as box.
- a. F5
 - b. F6
 - c. F9
 - d. F12

105. Data becomes when it is presented in a format that people can understand and use
- a. processed b. graphs c. information d. presentation
106. The term designates equipment that might be added to a computer system to enhance its functionality.
- a. digital device b. system add-on c. disk pack d. peripheral device
107. A is a microprocessor -based computing device.
- a. personal computer b. mainframe c. workstation d. server
108. RAM can be treated as the for the computer's processor
- a. factory b. operating room c. waiting room d. planning room
109. Which of the following are the functions of an operating system
- a. Allocates resources b. Monitors Activities
- c. Manages disks and files d. All of the above
110. To move a copy of file from one computer to another over a communication channel is called?
- a. File transfer b. File encryption
- c. File modification d. File copying
111. The primary function of the is to set up the hardware and load and start an operating system
- a. System Programs b. BIOS
- c. CP d. Memory
112. What kind of memory is both static and non-volatile?
- a. RAM b. ROM c. BIOS d. CACHE
113. is computer software designed to operate the computer hardware and to provide platform for running application software
- a. Application software b. System software
- c. Software d. Operating system
114. The is the amount of data that a storage device can move from the storage medium to the Computer per second
- a. data migration rate b. data digitizing rate
- c. data transfer rate d. data access rate
115. A device, which is not connected to CPU, is called as
- a. land-line device b. On-line device
- c. Off-line device d. Device
116. What is the other name for programmed chip?
- a. RAM b. ROM c. LSIC d. PROM

117. On-line real time systems become popular in generation
- First Generation
 - Second Generation
 - Third Generation
 - Fourth Generation
118. You use a(n), such as a keyboard or mouse, to input information
- output device
 - input device
 - storage device
 - processing device
119. is the ability of a device to "jump" directly to the requested data
- Sequential access
 - Random access
 - Quick access
 - All of the above
120. provides process and memory management services that allow two or more tasks, jobs, or programs to run simultaneously
- Multitasking
 - Multithreading
 - Multiprocessing
 - Multicomputing
121. The task of performing operations like arithmetic and logical operations is called.....
- Processing
 - Storing
 - Editing
 - Sorting
122. ALU and Control Unit jointly known as
- RAM
 - ROM
 - CPU
 - PC
123. RAM is an example of
- Secondary memory
 - Primary memory
 - Main memory
 - Both (1) and (2)
124. Magnetic disk is an example of
- Secondary memory
 - Primary memory
 - Main memory
 - Both (1) and (2)
125. Which one of the following is NOT a computer language
- MS-Excel
 - BASIC
 - COBOL
 - C++
126. RAM is also called as
- Read / Write Memory
 - Long Memory
 - Permanent Memory
 - Primary Memory
127. Store data or information temporarily and pass it on as directed by the control unit
- Address
 - Register
 - Number
 - Memory

128. Select the Odd one
- a. Operating system
 - b. Interpreter
 - c. Compiler
 - d. Assembler
129. A is an additional set of commands that the computer displays after you make a selection from the main menu
- a. dialog box
 - b. submenu
 - c. menu selection
 - d. All of the above
130. COBOL is an acronym for.....
- a. Common Business Oriented Language
 - b. Computer Business Oriented Language
 - c. Common Business Operated Language
 - d. Common Business Organized Language
131. All of the following are examples of real security and privacy risks EXCEPT
- a. hackers
 - b. Spam
 - c. Viruses
 - d. identity theft
132. Which of the following is NOT one of the four major data processing functions of a computer?
- a. gathering data
 - b. processing data into information
 - c. analyzing the data or information
 - d. storing the data or information
133. All of the following are examples of storage devices EXCEPT :
- a. hard disk drives
 - b. printers
 - c. floppy disk drives
 - d. CD drives
134. The CPU and memory are located on the :
- a. expansion board
 - b. motherboard
 - c. storage device
 - d. output device
135. is the science that attempts to produce machines that display the same type of intelligence that humans do
- a. Nanoscience
 - b. Nanotechnology
 - c. Simulation
 - d. Artificial intelligence (AI)
136. Servers are computers that provide resources to other computers connected to a :
- a. networked
 - b. mainframe
 - c. supercomputer
 - d. client
137. When creating a computer program, the designs the structure of the program
- a. End user
 - b. System Analyst
 - c. Programmer
 - d. All of the above
138. A computer program that converts an entire program into machine language at one time is called a/ an
- a. Interpreter
 - b. simulator
 - c. characters
 - d. compiler

139. Computers process data into information by working exclusively with :
- a. multimedia b. word c. numbers d. characters
140. The difference between people with access to computers and the Internet and those without this access is known as the :
- a. digital divide b. Internet divide c. Web divide d. E-illiteracy
141. Computers manipulate data in many ways, and this manipulation is called.....
- a. upgrading b. processing c. batching d. utilizing
142. The ability to recover and read deleted or damaged files from a criminal's computer is an example of a law enforcement speciality called:
- a. robotics b. simulation c. computer forensics d. animation
143. Where does most data go first with in a computer memory hierarchy ?
- a. RAM b. ROM c. BIOS d. CACHE
144. The.....data mining technique derives rules from real-world case examples.
- a. Rule discover b. Signal processing
- c. Neural nets d. Case-based reasoning
145.are used to identify a user who returns to a Website
- a. Cookies b. Plug-ins
- c. Scripts d. ASPs
146. Codes consisting of lines of varying widths or lengths that are computer-readable are known as-
- a. an ASCII code b. a magnetic tape
- c. an OCR scanner d. a bar code
147. Why is it unethical to share copyrighted files with your friends?
- a. It is not unethical, because it is legal.
- b. It is unethical because the files are being given for free.
- c. Sharing copyrighted files without permission breaks copyright laws.
- d. It is not unethical because the files are being given for free.
148. Reusable optical storage will typically have the acronym-
- a. CD b. DVD c. ROM d. RW
149. The most common type of storage devices are-
- a. Steel b. optical c. magnetic d. flash
150. A device that connects to a network without the use of cables is said to be-
- a. Distributed b. free c. centralized d. none of these
151. A person who used his or her expertise to gain access to other people's computers to get information illegally or do damage is a-
- a. Hacker b. spammer c. instant messenger d. programmer

152. To access properties of an object, the mouse technique to use is-
- a. Dragging b. dropping c. right-clicking d. shift-clicking
153. A DVD is an example of a (n)-
- a. hard disk b. optical disc
c. output device d. solid-state storage device
154. . The process of transferring files from a computer on the Internet to your computer is called
- a. Downloading b. uploading
c. FTP d. JPEG
155. is the process of dividing the disk into tracks and sectors.
- a. Tracking b. Formatting
c. Crashing d. Allotting
156. . Help Menu is available at which button?
- a. End b. Start
c. Turnoff d. Restart
157. The technology that stores only the essential instructions on a microprocessor chip and thus enhances its speed is referred to as
- a. CISC b. RISC
c. CD-ROM d. Wi-Fi
158. Which is not a basic function of a computer?
- a. Store data b. Accept input
c. Process data d. Copy text
159. ASCII is a coding system that provides
- a. 256 different characters b. 512 different characters
c. 1024 different characters d. 128 different characters
160. Which part of the computer is directly involved in executing the instructions of the computer program?
- a. The scanner b. The main storage
c. The secondary storage d. The processor
161. When a computer is switched on, the booting process performs
- a. Integrity Test b. Power-On Self-Test
c. Correct Functioning Test d. Reliability Test
162. A computer system that is old and perhaps not satisfactory is referred to as a(n)
- a. Ancient system b. Historical system
c. Age old system d. Legacy system

163. Which of the following is not a binary number?
a. 001 b. 101 c. 202 d. 110
164. Which of the following does not store data permanently?
a. ROM b. RAM c. Floppy Disk d. Hard Disk
165. Which of the following is the smallest storage?
a. Megabyte b. Gigabyte c. Terabyte d. None of these
166. Which of the following contains permanent data and gets updated during the processing of transactions?
a. Operating System File b. Transaction file
c. Software File d. Master file
167. Which of the following helps to protect floppy disks from data getting accidentally erased?
a. Access notch b. Write-protect notch
c. Entry notch d. Input notch
168. A modem is connected to
a. a telephone line b. a keyboard
c. a printer d. a monitor
169. Large transaction processing systems in automated organisations use
a. Online processing b. Batch Processing
c. Once-a-day Processing d. End-of-day processing
170. In a computer, most processing takes place in
a. Memory b. RAM
c. motherboard d. CPU
171. . Which of the following is not a storage medium?
a. Hard disk b. Flash drive c. DVD d. scanner
172. The computer abbreviation KB usually means
a. Key Block b. Kernel Boot c. Kilo Byte d. Kit Bit
173. The typical computer criminal is a(n):
a. Young hacker.
b. Trusted employee with no criminal record.
c. Trusted employee with a long, but unknown criminal record.
d. Overseas young cracker.
174. The common name for the crime of stealing passwords is:
a. Jacking. b. Identity theft.
c. Spoofing. d. Hacking.

175. Collecting personal information and effectively posing as another individual is known as the crime of:
- a. Spooling.
 - b. Identity theft.
 - c. Spoofing.
 - d. Hacking.
176. Malicious software is known as:
- a. Badware.
 - b. Malware.
 - c. Maliciousware.
 - d. Illegalware.
177. A program that performs a useful task while simultaneously allowing destructive acts is a:
- a. Worm.
 - b. Trojan horse.
 - c. Virus.
 - d. Macro virus.
178. An intentionally disruptive program that spreads from program to program or from disk to disk is known as a:
- a. Trojan horse.
 - b. Virus.
 - c. Time bomb.
 - d. Time-related bomb sequence.
179. In 1999, the Melissa virus was a widely publicised:
- a. E-mail virus.
 - b. Macro virus.
 - c. Trojan horse.
 - d. Time bomb.
180. What type of virus uses computer hosts to reproduce itself?
- a. Time bomb
 - b. Worm
 - c. Melissa virus
 - d. Macro virus
181. The thing that eventually terminates a worm virus is a lack of:
- a. Memory or disk space.
 - b. Time.
 - c. CD drives space.
 - d. CD-RW.
182. When a logic bomb is activated by a time-related event, it is known as a:
- a. Time-related bomb sequence.
 - b. Virus.
 - c. Time bomb.
 - d. Trojan horse.
183. A logic bomb that was created to erupt on Michelangelo's birthday is an example of a:
- a. Time-related bomb sequence.
 - b. Virus.
 - c. Time bomb.
 - d. Trojan horse.
184. What is the name of an application program that gathers user information and sends it to someone through the Internet?
- a. A virus
 - b. Spybot
 - c. Logic bomb
 - d. Security patch

185. ----- is the measurement of things such as fingerprints and retinal scans used for security access.
- a. Biometrics
 - b. Bio measurement
 - c. Computer security
 - d. Smart weapon machinery
186. What is the most common tool used to restrict access to a computer system?
- a. User logins
 - b. Passwords
 - c. Computer keys
 - d. Access-control software
187. Hardware or software designed to guard against unauthorized access to a computer network is known as a(n):
- a. Hacker-proof program.
 - b. Firewall.
 - c. Hacker-resistant server.
 - d. Encryption safe wall.
188. The scrambling of code is known as:
- a. Encryption.
 - b. a firewall.
 - c. Scrambling.
 - d. Password proofing.
189. To prevent the loss of data during power failures, use a(n):
- a. Encryption program.
 - b. Surge protector.
 - c. Firewall.
 - d. UPS.
190. -----Is defined as any crime completed through the use of computer technology.
- a. Computer forensics
 - b. Computer crime
 - c. Hacking
 - d. Cracking
191. ----- refers to electronic trespassing or criminal hacking.
- a. Cracking
 - b. Jacking
 - c. Spoofing
 - d. Smarming
192. The first electronic computer was developed by
- a. J.V. Attansoff
 - b. Bill Gates
 - c. Simur Cray
 - d. Winton Serf
193. Snowbol is an/a-----
- a. Operating system
 - b. HLL
 - c. Software
 - d. Search engine
194. Switching device of fifth generation computer is-----
- a. Vacuum tubes
 - b. Transistors
 - c. IC
 - d. VLSI
195. ----- computers operates essentially by counting
- a. Portable computer
 - b. Hybrid computer
 - c. Analog computer
 - d. Digital computer

221. Computers, combine both measuring and counting, are called :
- a. Analog b. Digital c. Hybrid d. All of these
222. In world today, most of the computers are :
- a. Digital b. Hybrid c. Analog d. Complex
223. Physical structure of computer is called :
- a. Software b. Hardware c. Human ware d. All of these
224. In which type of computer, data are represented as discrete signals.
- a. Analog computer b. Digital computer
c. both d. Hybrid Computer
225. Which of the following is available in the form of a PC now?
- a. Mainframe b. Microcomputer
c. Minicomputer d. Both (B) & (C)
226. PARAM is an example of:
- a. Super computer b. PC
c. Laptop d. PDA

ANSWER KEY

Q.No	Answer	Q.No	Answer	Q.No	Answer	Q.No	Answer	Q.No	Answer
1	a	55	b	109	d	163	c	217	c
2	b	56	c	110	a	164	b	218	c
3	b	57	c	111	b	165	d	219	c
4	a	58	b	112	b	166	d	220	b
5	a	59	a	113	b	167	b	221	c
6	c	60	d	114	c	168	a	222	a
7	a	61	a	115	c	169	b	223	b
8	b	62	b	116	c	170	d	224	b
9	a	63	b	117	c	171	d	225	b
10	b	64	c	118	b	172	c	226	a
11	a	65	c	119	b	173	b		
12	b	66	a	120	a	174	c		
13	a	67	c	121	a	175	b		
14	b	68	d	122	c	176	b		
15	b	69	d	123	b	177	b		
16	a	70	d	124	a	178	b		
17	a	71	c	125	a	179	a		
18	a	72	b	126	a	180	b		
19	a	73	b	127	b	181	a		
20	b	74	a	128	a	182	c		
21	a	75	b	129	a	183	c		
22	d	76	d	130	a	184	b		
23	b	77	c	131	b	185	a		
24	a	78	a	132	c	186	b		
25	a	79	d	133	b	187	b		
26	d	80	b	134	b	188	a		
27	a	81	d	135	d	189	d		
28	a	82	b	136	b	190	b		
29	b	83	a	137	b	191	a		
30	c	84	a	138	c	192	a		
31	c	85	b	139	c	193	b		

32	b	86	d	140	a	194	d		
33	a	87	d	141	b	195	d		
34	d	88	b	142	c	196	c		
35	a	89	c	143	a	197	c		
36	b	90	b	144	c	198	a		
37	b	91	c	145	a	199	d		
38	d	92	a	146	d	200	b		
39	a	93	d	147	c	201	c		
40	b	94	a	148	d	202	b		
41	b	95	a	149	b	203	c		
42	c	96	a	150	d	204	d		
43	d	97	c	151	a	205	a		
44	c	98	a	152	c	206	b		
45	b	99	a	153	b	207	d		
46	b	100	a	154	a	208	d		
47	d	101	b	155	b	209	b		
48	b	102	c	156	b	210	c		
49	c	103	c	157	b	211	d		
50	d	104	d	158	d	212	d		
51	b	105	c	159	c	213	d		
52	a	106	d	160	d	214	d		
53	c	107	a	161	b	215	a		
54	a	108	c	162	d	216	a		

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