

大同大學 九十三年 學年度研究所碩士在職專班入學考試試題

考試科目：計算機概論

所別：資訊工程研究所

第 1/8 頁

註：本次考試 不可以參考自己的書籍及筆記；不可以使用字典；不可以使用計算器。

選擇題(共 80 題)：請選擇正確的答案，並依題號順序，標明題號且每五題寫成一橫列。每答對一題，加 1.25 分；每答錯一題，減 0.25 分；沒作答的題目，不加減分。

1. On _____, the display often is part of the system unit.
 - a. desktop personal computers
 - b. notebook computers
 - c. mobile devices
 - d. all of the above
2. An integrated circuit _____.
 - a. contains microscopic pathways capable of carry electrical current
 - b. acts as an electronic switch that opens or closes a circuit for electrical charges
 - c. cools the processor in notebook computers
 - d. speeds the processes of a computer by storing frequently used instructions
3. Processors that use _____ are faster because they do not have to wait for one instruction to complete the machine cycle before fetching the next.
 - a. registering
 - b. hot plugging
 - c. pipelining
 - d. daisy chaining
4. Many of today's computers support _____, which means the computer automatically can configure adapter cards and other peripherals as you install them.
 - a. Pack and Go
 - b. Park and Ride
 - c. Pick and Choose
 - d. Plug and Play
5. A _____ sometimes is called a Centronics interface, after the company that first defined the standard for communications between the system unit and a printer.
 - a. serial port
 - b. USB port
 - c. parallel port
 - d. MIDI port
6. Word size is the _____.
 - a. pace of the system clock
 - b. size of the bus
 - c. amount of time it takes the processor to read instructions from memory
 - d. number of bits the processor can interpret and execute at a given time
7. The most common and slowest expansion bus is the _____.
 - a. ISA bus (Industry Standard Architecture bus)
 - b. VESA local bus (Video Electronics Standards Association local bus)
 - c. PCI bus (Peripheral Component Interconnect bus)
 - d. AGP (Accelerated Graphics Port)
8. A(n) _____ is a battery-powered device that transmits data using wireless technology, such as radio waves or infrared light waves.
 - a. enhanced keyboard
 - b. ergonomic keyboard
 - c. portable keyboard
 - d. cordless keyboard

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9. A portable keyboard _____.
- is an infrared image of a keyboard projected on a flat surface
 - has twelve function keys along the top, two CTRL keys, two ALT keys, and a set of arrow and additional keys between the typing area and the numeric keypad
 - has a design that reduces the chance of wrist and hand injuries
 - is a full-sized key board you conveniently attach and remove from a PDA
10. A digital video (DV) camera _____.
- records video as analog signals instead of digital signals
 - is a stationary camera used for professional studio work
 - records video as digital signals instead of analog signals
 - is a mobile camera used for amateur studio work
11. The number of colors a video card displays is determined by its _____.
- dot pitch
 - refresh rate
 - bit depth
 - viewable size
12. Printer resolution is measured by the number of _____ a printer can output.
- pages per minute (ppm)
 - dots per inch (dpi)
 - lines per minute (lpm)
 - pixels per inch (ppi)
13. A _____ is the smallest unit of disk space that stores data.
- cluster
 - track
 - shutter
 - sector
14. A Zip disk can store from _____ of data.
- 10MB to 75MB
 - 100MB to 750MB
 - 10GB to 75 GB
 - 100GB to 750GB
15. External hard disks and removable hard disks offer all the following advantages over internal hard disks, except _____.
- they can transport a large number of files
 - they can add storage space to a notebook computer
 - they can be shared with multiple computers
 - they can transfer data at much faster rates
16. A storage technique that a DVD-ROM uses to achieve a higher storage capacity than a CD-ROM is _____.
- making the disc denser by packing the pits closer together
 - using two layers of pits
 - using both sides of the disc
 - all of the above
17. The term, PC-compatible, refers to any personal computer _____.
- with processors having the same architecture as processors in Apple computers
 - based on the original IBM personal computer design
 - that uses the Macintosh operating system (Mac OS)
 - all of the above

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18. Three popular types of _____ are handheld computers, PDAs, and smart phones.
- a. mobile devices
 - b. notebook computers
 - c. desktop computers
 - d. tower computers
19. The _____ chip, which uses battery power, stores configuration information about the computer.
- a. BIOS
 - b. POST
 - c. CMOS
 - d. RAM
20. In most cases, drive _____ (the hard disk) is the boot drive from which a personal computer starts.
- a. A
 - b. B
 - c. C
 - d. D
21. Many current _____ operating systems incorporate features similar to those of a Web browser, such as links and navigation buttons.
- a. command-line interface
 - b. menu-driven interface
 - c. graphical user interface
 - d. all of above
22. Windows XP includes a(n) _____ called Windows Explorer.
- a. image viewer
 - b. disk scanner
 - c. uninstaller
 - d. file manager
23. _____ hardly is used today because it does not offer a GUI and it cannot take full advantage of modern 32-bit personal computer processors .
- a. DOS
 - b. Windows XP
 - c. Mac OS X
 - d. UNIX
24. Apple's _____ has set the standard for operating system ease of use and has been the model for most the new GUIs .
- a. OS/2 Warp Client operating system
 - b. Macintosh operating system
 - c. Windows XP operating system
 - d. Linux operating system
25. In addition to being a stand-alone operating system , _____ also is a network operating system .
- a. DOS
 - b. UNIX
 - c. NetWare
 - d. Windows XP
26. _____ , developed by Sun Microsystems, manages high-traffic accounts and incorporates security necessary for Web transactions .
- a. Solaris
 - b. Linux
 - c. Windows Server 2003
 - d. OS/2 Warp Server for e-business
27. Palm OS is an embedded operating system used with _____ .
- a. a specific type of PDA called a Pocket PC
 - b. digital cameras , DVD players , and smart displays
 - c. PDA's such as Visor and CLIE
 - d. smart phones

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28. Two popular stand-alone _____ are PKZIP and WINZIP. <接前頁>
- a. antivirus programs
 - b. personal computer maintenance utilities
 - c. personal firewalls
 - d. file compression utilities
29. With database software, users can run a _____ to request specific data from the database.
- a. query
 - b. record
 - c. field
 - d. form
30. Online Help often is context-sensitive, meaning that the Help information _____.
- a. is available only to certain users
 - b. lists answers to common questions
 - c. provides updates and more comprehensive resources
 - d. relates to the current task being attempted
31. An OOP language is _____, which means an OOP language program checks for and responds to events such as pressing a key or typing a value.
- a. event based
 - b. interpreted
 - c. event driven
 - d. compiled
32. Because it is easy to learn and use, _____ is an ideal visual programming language for beginning programmers.
- a. Delphi
 - b. Visual Basic .NET
 - c. C
 - d. PowerBuilder
33. _____ is a popular fourth-generation query language that allows users to manage, update, and retrieve data in a relational DBMS
- a. PRG
 - b. Ada
 - c. XML
 - d. SQL
34. A _____ language uses the traditional approach to programming and is also referred to as an imperative language.
- a. procedural
 - b. functional
 - c. declarative
 - d. object-oriented
35. LISP, Scheme and REBOL are all _____ languages.
- a. procedural
 - b. functional
 - c. declarative
 - d. object-oriented
36. In C++, _____ is the hiding of data and operations from the user.
- a. encapsulation
 - b. inheritance
 - c. polymorphism
 - d. modularity
37. In C++, _____ is implemented through the use of virtual function(s).
- a. encapsulation
 - b. polymorphism
 - c. modularity
 - d. code reuse
38. In _____, class instances are implicitly deallocated, there cannot be a dangling reference.
- a. C++
 - b. Java
 - c. C#
 - d. all of the above

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39. On the Java language, which of the following is correct? ____
- a. A program can be either an application or an applet.
 - b. It allows multithreading.
 - c. It is totally class oriented.
 - d. all of the above
40. ____ is used to describe the syntax of a programming language.
- a. BNF or EBNF
 - b. Context free grammar
 - c. Type 2 grammar
 - d. all of the above
41. ____ is used to describe the token rules of a programming language or the search pattern in a text editing session.
- a. Regular expression
 - b. Context free grammar
 - c. Type 0 grammar
 - d. Type 1 grammar
42. Many programmers use a(n) ____ to identify a program's inputs, its outputs, and the processing steps required to transform the inputs into the outputs.
- a. IPO chart
 - b. case diagram
 - c. program flowchart
 - d. hierarchy chart
43. The more errors the data contains, the ____.
- a. higher its integrity
 - b. higher its redundancy
 - c. lower its integrity
 - d. lower its redundancy
44. All of the following are strengths of the database approach, except ____.
- a. less complexity
 - b. improved data integrity
 - c. easier access
 - d. reduced development time
45. Because the data dictionary contains details about data, some call it ____.
- a. cryptodata
 - b. extradata
 - c. intradata
 - d. metadata
46. The data in a(n) ____ exists in many separate locations throughout a network or the Internet.
- a. hypermedia database
 - b. distributed database
 - c. relational database
 - d. object-oriented database
47. To access data in a Web database, users fill in a form on a Web page, which is the ____ to the database.
- a. front end
 - b. before image
 - c. back end
 - d. after image
48. The database analyst(DA) ____.
- a. decides on the proper placement of fields
 - b. creates and maintains the data dictionary
 - c. monitors the performance of the database
 - d. checks backup and recovery procedures
49. ____ file can be accessed randomly.
- a. A sequential
 - b. An indexed
 - c. A hashed
 - d. b and c

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50. When a hashing algorithm produces an address for an insertion key and that address is already occupied, it is called a ____.
- collision
 - probe
 - synonym
 - linked list
51. In the ____ collision resolution method, a node can hold multiple pieces of data.
- open addressing
 - linked list
 - bucket hashing
 - a and b
52. In a three-level DBMS architecture, the ____ level determines where data are actually stored on the storage device.
- external
 - conceptual
 - internal
 - physical
53. The data model and the schema of the DBMS are often defined in the ____ level.
- external
 - conceptual
 - internal
 - physical
54. The operation that takes two relations and combines them based on common attributes is the ____ operation.
- join
 - project
 - union
 - intersection
55. If you have tuples in a relation containing student information and want only the tuples of the female students, you can use the ____ operation.
- project
 - join
 - update
 - select
56. Many Web addresses begin with http, which is the ____.
- path
 - domain name
 - protocol
 - page name
57. ____ format reduces the size of an audio file to about one-tenth its original size, while preserving the quality of the sound.
- JPEG
 - MP3
 - BMP
 - GIF
58. In ____ e-commerce, a customer visits an online business through an electronic storefront.
- consumer-to-consumer
 - business-to-business
 - consumer-to-business
 - business-to-consumer
59. An online meeting allows users to ____.
- share documents with others in real time
 - leave voice messages for one or two people
 - determine the receiver's geographic location
 - print to a Web address that is associated to a particular printer
60. Because of its larger size, most ____ networks require a person to serve as a network administrator.
- client/server
 - peer-to-peer
 - P2P
 - all of the above

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61. A _____ is a special series of bits that function like a ticket, enabling a device to transmit data over a network.
- a. bus
 - b. token
 - c. peer
 - d. star
62. Internet transmissions commonly use _____.
- a. Ethernet
 - b. TCP/IP
 - c. Bluetooth
 - d. 802.11
63. Communications software consists of programs that do all of the following, except _____.
- a. help users establish a connection to another computer or network
 - b. manage the transmission of data, instructions, and information
 - c. provide an interface for users to communicate with one another
 - d. convert a computer's analog signals into digital signals for transmission
64. With ISDN, a telephone line can carry three or more signals at once using a technique called _____.
- a. packet switching
 - b. multiplexing
 - c. file sharing
 - d. collaborating
65. The most popular T-carrier line is the _____.
- a. T1 line
 - b. ATM
 - c. T3 line
 - d. DSL
66. Two types of wireless home networks are _____.
- a. Ethernet and powerline
 - b. Phoneline and HomeRF (radio frequency)
 - c. Ethernet and 802.11b
 - d. HomeRF and 802.11b
67. _____ media transmit multiple signals simultaneously.
- a. Baseband
 - b. Sideband
 - c. Broadband
 - d. Trainband
68. Networking certifications include _____.
- a. Certified Novell Administrator (CNA)
 - b. Microsoft Certified Professional (MCP)
 - c. Certified Lotus Professional (CLP)
 - d. all of the above
69. _____ is a lossy compression method for pictures and graphics; whereas _____ is a lossy compression method for video.
- a. DCT ; MPEG
 - b. MPEG ; JPEG
 - c. JPEG ; MPEG
 - d. JPEG ; DCT
70. _____ is achieved through encryption/decryption.
- a. Authentication
 - b. Integrity
 - c. Privacy
 - d. Nonrepudiation
71. In the digital signature method, the receiver uses the _____ key to decrypt the message.
- a. public
 - b. private
 - c. secret
 - d. skeleton

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72. The digital signature method does not provide ____.
- a. privacy
 - b. authentication
 - c. integrity
 - d. nonrepudiation
73. In a breadth-first traversal of a binary tree with three levels (0, 1, and 2), which level is processed last?
- a. 0
 - b. 1
 - c. 2
 - d. any of the above
74. ____ is a measure of how tightly two modules are bound to each other.
- a. Modularity
 - b. Coupling
 - c. Interoperability
 - d. Cohesion
75. Accuracy, efficiency, reliability, security, timeliness, and usability are factors important to the ____ of software.
- a. operability
 - b. maintainability
 - c. transferability
 - d. longevity
76. Changeability, correctability, flexibility, and testability are factors important to the ____ of software.
- a. operability
 - b. maintainability
 - c. transferability
 - d. longevity
77. The ____ assembles precompiled units from different sources into an executable program.
- a. preprocessor
 - b. text editor
 - c. linker
 - d. loader
78. Which of the following is true? ____
- a. $\log n^x$ is $O(\log n)$ for any fixed $x > 0$.
 - b. 2^{100} is $O(1)$.
 - c. n^x is $O(a^n)$ for any fixed $x > 0$ and $a > 1$.
 - d. all of the above
79. The ____ controller features a parallel interface and daisy-chained connection for I/O devices.
- a. SCSI
 - b. FireWire
 - c. USB
 - d. IDE
80. In the ____ method to synchronize the operation of the CPU with the I/O device, a large block of data can be passed from an I/O device to memory directly.
- a. programmed I/O
 - b. interrupt-driven I/O
 - c. DMA
 - d. isolated I/O