Faculty of computer science
& Information systems
1st year - second Semester

Fundamentals of I.T.
Exam: 10/6/2009
Time: 3 hour

Answer The Following Questions

Q1: Define each of the following:

1) Machine cycle 5 - knowledge base 9 - system boundary 13 - Wi-Max
2) protocol 6 - topology 10 - System parameters 14 - Transaction
3) Dss 7 - Expert system 11 - GUI
4) microcode 8) virtual memory 12- paging

Q2: A: choose the right answer (mark the suitable circle in the answer sheet).

1. A type of topology that consists of computers connected on a single line:
   (a) ring (b) hierarchical (c) star (d) bus (e) nothing.
2. ........... is an awareness and understanding of a set of information and they can be made useful to support a specific task.
   (a) database (b) system (c) knowledge base (d) knowledge (e) nothing.
3. System has no interaction with the environment.
   (a) open (b) dynamic (c) simple (d) closed (e) nothing.
4. System that undergoes rapid and constant changes over time:
   (a) open (b) closed (c) simple (d) dynamic (e) nothing.
5. Predetermined rate a CPU produces a series of electronic pulses.
   a. Input/output b. cycle/sec c. microcode d. Clock speed
6. A measure of the extent to which a system achieves its goals.
   (a) effectiveness (b) efficiency (c) performance (d) anything.
7. ............ is an output that is used to make changes to input or processing activities.
   (a) efficiency (b) feedback (c) performance (d) anything.
8. A value or quantity that cannot be controlled by the decision maker.
   (a) system variables (b) system parameters (c) Feedback (d) anything.
9. Number of bits a bus can transfer at one time
   (a) Bus width (b) word length (c) nothing.
10. High speed memory that a processor can access more rapidly than main memory
    (a) Virtual memory (b) Cache memory (c) nothing.
11. A language translator that translates one program statement at a time into machine code
    (a) compiler (b) interpreter (c) nothing
12. ...... storage devices store large amounts of data, instructions, and information more permanently.
    (a) Primary (b) Secondary (c) nothing.
13. In .......... access method data is retrieved in the order they are stored.
    a. direct (b) sequential (c) nothing.
14. Memory that allocates space in secondary storage to supplement the immediate, functional memory capacity of RAM.
    (a) Virtual memory (b) Paging (c) nothing
15. A form of multiprocessing that speeds the processing by linking several processors to operate at the same time or in parallel.
   a. Parallel processing  b. serial processing  c. interleaved processing
16. A computer chip design that places as many microcode instructions into the central processor as possible.
   a. Complex instruction set computing (CISC)  b. Reduced instruction set computing (RISC)  c. none
17. A technique used by the system to recognize certain types of frequently used data
   a. smart caching  b. cache hit  c. hit rate  d. none
18. In this type of e-commerce, the sellers are organizations and the buyers are individuals.
   a. government-to-citizen  b. business-to-consumer  c. consumer-to-consumer
19. Internet fraud is:
   a. increasing slowly  b. decreasing rapidly  c. increasing rapidly
   d. decreasing slowly  e. staying about the same
20. ________ refers to the 802.11 set of standards on which most of the wireless
   a. Bluetooth  b. Global positioning protocol  c. Short message service
   d. Wireless application method  e. Wi-Fi
21. With regard to mobile computing, ________ means that information can be
   a. ubiquity  b. convenience  c. instant connectivity
   d. personalization  e. localization of products and services

The following table gives some expressions that are used in the Mobile basic computing Technology. Choose the suitable name for each of the following definition:

| a. PDA | b. WAP | c. WiMAX | d. BLUETOOTH | e. GPS |

22. A wireless system that uses satellites to enable users to determine their position anywhere in the world.
23. A chip technology wireless standard designed for temporary, short range connection (data& voice) among mobile devices
24. A wireless broad band technology, designed to provide Internet access across metro areas to fixed users.
25. A technology that offers internet browsing from wireless devices.

Q2: B: For the next group of questions mark circle (A) if true and circle (B) if false:
27. Electronic commerce is a broader term than electronic business.
28. In pure electronic commerce, the product or service, the process, and the delivery agent are digital.
29. With business-to-consumer EC, the sellers and buyers are organizations.
30. The vast majority of electronic commerce volume is business-to-business.
31. Even though the Internet works well for job seekers and companies trying to hire new people, the costs are higher than with traditional “help wanted” ads.
32. eBay is a good example of pure electronic commerce.
33. In a forward auction, a single seller auctions item(s) to many potential buyers.
34. In the buy-side marketplace, electronic commerce technology is used to reduce both the cost of items purchased and the administrative cost of procurement.
35. Internally, computers are analog because they simulate analog events.
36. A Program is an organized collection of facts and information.
37. Assembly Language is a 1st generation programming language considered a low-level language.
38. Time-sharing is a processing activity that allows more than one person to use a computer system at the same time.
39. Groupware software helps groups of people work together more efficiently and effectively.
40. Programming languages...are coding schemes used to write both systems and application software.
41. Object-oriented languages are languages that allow interaction of programming objects, including data elements and the actions that will be performed on them.
42. The compiler is a language translator that converts a complete program into machine language.
43. Data entry is the process of transferring machine-readable data into the computer system.
44. Java: An object oriented programming language developed by Sun Microsystems, its considered as low level language.
45. Intranet is the world's largest telecommunications network.
46. Word Processing Provides a wide range of built-in functions for statistical, financial, logical, database, graphics, and data and time calculations.
47. Spreadsheet provides assistance in formulating, formatting, and printing documents such as letters, memos, and papers.
48. Multitasking is a processing activity that is basically multitasking within a single application.
49. Common operating systems for workstations are UNIX and Windows NT.
50. On-Line Services Provide access to various information resources.
51. Graphics Program helps make a presentation; develops brochures, illustrations.
52. In the wireless computing environment, users must come to a computer.
53. Wi-Fi provides simple Internet access at relatively high cost.
54. Mobile commerce is any electronic commerce done in a wireless environment, especially via the Internet.
55. Pervasive computing refers to a real-time, wireless connection between a mobile device and other computing environments.
56. Mobile portal is a customer channel, optimized and provides content and service for mobile users.
57. Satellite transmissions are broadcast, where microwave transmissions are point-to-point.
58. A voice portal is a Web site with an audio interface.
59. Information systems can be classified according to the type of support they provide.
60. Web based systems are those systems that reside on a server and is accessible using a web browser and work with the internet.
61. A hospital patient – admission system is a web based information system.
O3: COMPLETE - (Give name for each of the following statements):

1. Protection applied by software vendors to prevent unauthorized use.
2. A revised version of software that usually includes fixes of known problems, plus enhancements to existing capabilities.
3. There are four types of system models which are:
   a. ................
   b. ................
   c. ................
   d. ................
4. ............. is a proactive approach to feedback that is used for estimating future sales or inventory needs.
5. MIPs is short for ...................... which is used for ......................
6. A CBIS is composed of ......................
7. ............. databases are particularly useful for organizing large amounts of disparate information, but they are not designed for numerical analysis.
8. A collection of programs that enables you to enter, organize, and select data in a database. Is called......................
9. ......................; a common set of rules and signals that computers on the network use to communicate.
10. ............... a network that uses Internet technology within an organization.
11. ............... An organized collection of people, procedures, software, databases, and devices used to support problem-specific decision making and helps a manager “do the right thing”.
12. ............... is a computer application that can (for example) diagnose human illnesses, make financial forecasts, schedule routes for delivery vehicles.
13. ............... programming computers to see and hear and react to other sensory stimuli.
14. ............... is one of the most common programming languages used for AI applications.
15. Information systems that connect two or more organizations, are referred to as: 
   (I05s)......................

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With best wishes        Dr. Aziza Asem