Text 1. Operating System Functions and Categories

An operating system is an interface between the hardware and the user. It is responsible for the management, coordination and sharing of computer resources. The operating system acts as a host for applications that are run on the machine. It is the master system of programs that manages the basic operation of the computer. This relieves applications from having to control the hardware and makes it easier to write programs. Almost all computers, including hand-held computers, desktop computers, supercomputers, and even video game consoles, use an operating system. Some of the oldest models may however use an embedded operating system on a compact disk or other data storage devices.

A good operating system should have the following features:

1) help in loading of programs and data from external sources into the internal memory before they are executed;

2) help programs to perform input/output operations, such as:

a) print or display the result of a pro-gram on the printer or the screen;

b) store the output data or programs written on the computer in a storage device;

c) communicate the message from the system to the user through the VDU; and

d) accept input from the user through the keyboard or mouse.

The broad categories of operating systems are:

1) real-time operating systems used to control machinery, scientific instruments and industrial systems;

2) single-user, single-task operating systems designed to manage the computer so that one user can effectively do one thing at a time;

3) single-user, multi-tasking operating systems used by most people on their desktop and laptop computers today. Windows and Mac OS are examples of an operating system that will let a single user have several programs in operation at the same time, and 4) multi-user operating systems allow many different users to take advantage of the computer resources simultaneously.

The most common operating systems include Microsoft Windows, Mac OS, UNIX, Linux and Solaris. Windows lets you display your work in windows. A window is a portion of the video display area dedicated to some specific purpose. With Windows, which supports multitasking and graphical user interface, you can display several windows on a computer screen, each showing a different application, such as word processing or spreadsheet. You can easily switch between the applications and move data between them. Windows 7 is the recent version of Microsoft Windows family. Microsoft Windows has a significant majority of market share in the desktop and notebook computer markets, while servers generally use Linux or other Unix-like systems. Embedded device markets are split among several operating systems.

The Macintosh operating system was designed to be used on Ap-ple Macintosh computers. This operating system supports multi-tasking and enables users to read MS-DOS and Windows files. The UNIX operating system is one of the oldest operating systems. It is a multi-tasking operating system that includes built-in networking support. It is a popular operating system in universities, where a multi-user environment is often needed. Unlike other operating systems, Linux and UNIX allow any file system to be used regardless of the media it is stored in, whether it is a hard drive, a disc (CD, DVD...), a USB key, or even contained within a file located on another file system.

Solaris was developed by Sun Microsystems as a more open option of SunOS for its SPARC-based servers and workstations. Sun ma-chines are popular, powerful, and expensive computers built for serving information to many PCs or dumb terminals. Their processors can per-form several tasks simultaneously. Many universities and large corporations use Sun machines to serve information on their networks. Current-ly, Solaris is one of the most popular versions of UNIX and has the largest share of the Internet market.

Exercise 1. Say whether the statements below are true or false. Correct the false ones.

1. An operating system is an interface between the hardware and the user.

2. It is responsible for the management, coordination and sharing of computer resources.

3. It is the master system of programs that man-ages the basic operation of the software.

4. The operating system acts as a host for system programs that are run on the machine.

5. The operating system relieves applications from having to control the hardware but makes it more difficult to write programs.

6. Almost all computers, including hand-held computers, desktop computers, supercomputers, and even video game consoles, use an operating system.

7. A good operating system should help in loading of programs and data from external sources into the internal memory before they are executed and help pro-grams to perform input/output operations.

8. Windows and Mac OS are multi-user operating systems that allow many different users to take ad-vantage of the computer resources simultaneously.

9. The most common operating systems include Mac OS, UNIX, Linux and Solaris.

10. Win-dows lets you display your work in cells.

11. A window is a portion of the video display area dedicated to some specific purpose.
12. With Windows, which supports multitasking and graphical user interface, you can display several windows on a computer screen, each showing a different application, such as word processing or spreadsheet.

13. Windows 2006 is the recent version of Microsoft Windows family.

14. Microsoft Windows has a significant majority of market share in the servers and notebook computer markets.

15. The Macintosh operating system was designed to be used on Apple Macintosh computers.

16. The Macintosh operating system does not support multi-tasking and enables users to read Windows files.

17. The UNIX operating system is one of the oldest operating systems.

18. UNIX is a single-user operating system that includes built-in networking support.
19. Linux and UNIX allow any file system to be used regardless of the media it is stored in.

20. Solaris was developed by Sun Microsystems as a more open option of SunOS for its SPARC-based servers and workstations.

21. Sun machines are popular, powerful, and expensive computers built for serving information to many mainframes and supercomputers.

22. Sun machines processors can perform several tasks simultaneously.

23. Currently, Solaris is one of the most popular versions of UNIX and has the largest share of the Internet market.

Exercise 2. Fill in the blanks with prepositions **to, in, into, on, of, for, from, between, among, through, at, by** where necessary.

1. An operating system is an interface … the hardware and the user. 2. It is responsible … the management, coordination and sharing … comput-er resources. 3. The operating system acts as a host … applications that are run … the machine. 4. It is the master system … programs that manage the basic operation … the computer. 5. This relieves applica-tions … having to control the hardware.. 6. A good operating system should help … loading … programs and data … external sources … the internal memory. 7. Operating system should communicate the message … the system … the user … the VDU and accept input … the user … the keyboard or mouse. 8. Single-user, multi-tasking operating systems are used … most people … their desktop and laptop computers today. 9. Windows and Mac OS are examples … an operating system that will let a single user have several programs … operation … the same time. 10. A window is a portion … the video display area dedicated … some specific purpose. 11. You can easily switch …the applications and move data … them. 12. Microsoft Windows has a significant majority … market share … the desktop and notebook computer markets. 13. Embedded device markets are split … several operating systems. 14. Unlike other operating systems, Linux and UNIX allow any file sys-tem to be used regardless … the media it is stored … . 15. Solaris was developed … Sun Microsystems as a more open option … SunOS … its SPARC-based servers and workstations. 16. Sun machines are popular, powerful, and expensive computers built … serving information … many PCs or dumb terminals.

Exercise 3. Fill in the blanks with proper terms (**operating system, Unix, Windows, multi-user operating system, Macintosh operating system, Sun machines, window, Solaris)** to complete the sentences.

1. _____ is a portion of the video display area dedicated to some specific purpose. 2. _____ is an operating system that allows many different users to take advantage of the computer resources simultaneously. 3. _____ are popular, powerful, and expensive computers built for serving information to many PCs or dumb terminals. 4. _____ is one of the most popular versions of UNIX developed by Sun Microsystems as a more open option of SunOS. 5. _____ is one of the oldest multi-tasking operating systems that includes built-in networking support. 6._____ is an op-erating system that lets you display your work in windows. 7. _____ is an interface between the hardware and the user. 8. _____ is an operating system that was designed to be used on Apple-Macintosh computers.

Exercise 12. Answer the questions on text 1.

1. What is an operating system? 2. What is it responsible for? 3. What are the functions of the operating system? 4. What does the operating system relieve applications from? 5. What kinds of computers use an operating system? 6. What kind of operating system do the old models use? 7. What features should a good operating system have? 8. What are the broad categories of operating systems? 9. What are real-time operating systems used for? 10. What are single-user, single-task operating systems designed for? 11. What operating systems are used by most people on their desktop and laptop computers today? 12. What operating systems allow many different users to take advantage of the computer resources simultaneously? 13. What are the most common operating systems? 14. What does Windows allow the users to do? 15. What operating system has a significant majority of market share in the desktop and notebook computer markets? 16. What operating systems do servers generally use? 17. What files does the Macintosh operating system enable users to read? 18. What kind of system is the UNIX operating system? 19. How do Linux and UNIX differ from other operating systems? 20. What kind of computers was Solaris developed for? 21. What kind of computers are Sun machines? 22. What do many universities and large corporations use Sun machines for? 23. What operating system has the largest share of the Internet market?

Exercise 13. Put all possible questions to the sentences below.

1. An operating system is an interface between the hardware and the user. 2. An operating system is responsible for the management, coordination and sharing of computer resources. 3. The operating system relieves applications from having to control the hardware. 4. Almost all computers, including hand-held computers, desktop computers, super-computers, and even video game consoles, use an operating system. 5. Some of the oldest models may however use an embedded operating system. 6. A good operating system should help in loading of programs and data from external sources into the internal memory before they are executed. 7. The most common operating systems include Microsoft Windows, Mac OS, UNIX, Linux and Solaris. 8. You can display several windows on a computer screen. 9. The Macintosh

operating system was designed to be used on Apple Macintosh computers. 10. This operating system supports multi-tasking and enables users to read MS-DOS and Windows files. 11. Their processors can perform several tasks simultaneously.