

M.Sc. ENVIRONMENTAL SCIENCE
First Semester
Computer Application and Information Technology
(MEV - 04)

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20

Part-B (Descriptive)=50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

1. Answer the following questions (any *five*)

2×5=10

- a) Convert the followings from binary to decimal:
11011.11
- b) Convert the followings from octal to binary:
2571
- c) What is a web browser and a web server?
- d) Convert the followings from decimal to binary:
963.875
- e) Convert the followings from hexadecimal to binary:
9AF03
- f) Mention the name of the first computing machine. Who is the father of modern computer?
- g) Write the differences between data, information and knowledge.

2. Answer the following questions (any *five*)

3×5=15

- a) Write the characteristics of third generation computer.
- b) Briefly explain three different **protocols** necessary for internet.
- c) Explain any six characteristics of computer.
- d) Write short notes on the followings- (i) URL (ii) ISP
- e) Write the differences between the top-down and bottom-up technique of program.
- f) List out three input devices and three output devices.
- g) Write short note on E-Commerce.

3. Answer the following questions (any *five*)

5×5=25

- a) Name some of the basic services provided by internet. Explain how each of them help the internet users.
- b) Draw the block diagram of a computer system and explain the functions of every unit.
- c) Write and explain the characteristics that a computer program should possess.
- d) Broadly classify computer software. Explain every type of software with an specific example.
- e) Write an algorithm to find whether a number is even or odd.
- f) Draw a flowchart to find the greater of two numbers.
- g) How many types of business files are available? Explain every type.

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(The figures in the margin indicate full marks for the questions)

Duration: 20 minutes

Marks – 20

PART A- Objective Type

Choose the correct options from the following:

1×20=20

1. Second-generation computers were manufactured using which technology?
(a) Vacuum tubes (b) Transistors (c) ICs (d) None of these
2. Time sharing operating system were used in which generation of computers?
(a) First (b) Second (c) Third (d) Forth
3. Which device is used to connect a LAN to a WAN?
(a) Hub (b) Switch (c) Bridge (d) Router
4. A program that request information from another computer on network is known as
(a) server (b) host (c) client (d) hub
5. The protocol responsible for transferring of files over the internet is:
(a) HTTP (b) FTP (c) POP (d) TCP/IP
6. Which of the following symbols is not used in hexadecimal number systems:
(a) A (b) H (c) E (d) F
7. Base of octal number system is:
(a) 2 (b) 10 (c) 8 (d) 16
8. Which of the following is a type of ISP
(a) DSL (b) hypertext (c) browsers (d) None of these

9. Which of the following is not a type of network?
(a) LAN (b) WAN (c) MAN (d) none of these
10. Which of the following is a utility software:
(a) Word Processor (b) Anti-virus (c) Desktop publishing tool (d) Compiler
11. Window Vista, Linux and UNIX are examples of
(a) Operating system (b) Computer hardware (c) firmware (d) Device Driver
12. A character is a combination of multiple related _____
(a) Bits (b) fields (c) records (d) files
13. Adobe Photoshop is an example of _____ software.
(a) graphics (b) spreadsheet (c) personal assistance (d) Entertainment
14. Searching and sorting are different types of:
(a) files (b) file organizations (c) file operations (d) None of these
15. Which of the following is a non-linear data structure?
(a) stack (b) queue (c) tree (d) array
16. What is the name of first ever internet of world?
(a) ARPANET (b) WWW (c) WAIS (d) none of these
17. Com, .edu, .gov are some commonly used name for
(a) service provider (b) browser (c) domain (d) none of these
18. RAM is a _____ memory.
(a) Volatile (b) Non volatile (c) External (d) None of these
19. Which of the following is a program design tool:
(a) algorithm (b) flowchart (c) both of these (d) None of these
20. STACK follows which of the following strategy:
(a) FIFO (b) FILO (c) LILO (d) LIFO
