



BOWEN UNIVERSITY IWO, OSUN STATE

COLLEGE OF COMPUTING AND COMMUNICATION STUDIES

COMPUTER SCIENCE PROGRAMME

B.SC. DEGREE FIRST SEMESTER EXAMINATION SESSION: 2023/2024

COURSE TITLE: OPERATING SYSTEMS

COURSE CODE: IFT 305 COURSE CREDIT: 3 UNITS

INSTRUCTION: Answer question 1 and any other three questions TIME ALLOWED: 2 HOURS

Question One

- 1a. Explain the common technique used by an operating system to recognize and operate on the type of a file. **10 Marks**
- b. Supply the usual extensions and the functions for each of the following file types.
(i.) Executable (ii.) Object (iii.) Source code (iv.) Batch (v.) Markup. (vi.) Word processor (vii.) Library (viii.) Print or view (ix.) Archive (x.) Multimedia. **20 Marks**

Question Two

- 2a. What do you understand by a process? **2¹/₂ Marks**
- b. Define five states of a process as it executes **5 Marks**
- c. (i.) What are Dynamically Linked Libraries? **2¹/₂ Marks**
(ii.) Why are they used in Windows and Linux? **5 Marks**

Question Three

- 3a. Explain the three strategies you can use to satisfy a request of selecting a hole of size n from a list of free holes in storage allocation? **6 Marks**
- b (i.) What do you understand by swapping? **4 Marks**
(ii.) What is the advantage of standard swapping? **2 Marks**
(iii.) Explain the kind of swapping existing in Windows and Linux. **3 Marks**

Question Four

- 4a .Explain the following concepts as they relate to mass storage
(i.) Network attached storage **4 Marks**
(ii.) Storage attached network **5 Marks**
(iii.) Cloud storage. **5 Marks**
- b. Give reasons why you prefer cloud to network attached storage? **1 Mark**

Question Five

- 5a. What do you understand by a file in an operating system? **1 Mark**
- b. The operating system can provide system calls to create, write, read, reposition, delete, and truncate files. Explain the tasks the operating system must do to perform each of these seven basic file operations. **14 Marks**

Question Six

- 6a. What do you understand by directory? **2 Marks**
- b. Explain five operations that can be performed on a directory. **10 Marks**
- c. How does a tree structured directory handle the deletion of a directory? **3 Marks**