LTS

Operating System

2K5-CS-1

E-4 + Roll No.: 1804-051002

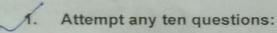
Time: 3 Hrs.

M.M. 100

Note:

- Part 'A' may be attempted in first 5 pages of Answer Sheet.
 भाग 'क' के सभी उत्तर, उत्तर-पुस्तिका के प्रथम पांच पृष्ठों में ही करने हैं।
- 2. Part 'B' in rest of the Sheets of Answer Sheet. भाग 'ख' के उत्तर, उत्तर-पुस्तिका के अगले शेष पृष्ठों में लिखिये।
- 3. Answers may be given in English or Hindi. प्रश्नों के उत्तर अंग्रेजी अथवा हिन्दी में दीजिये।

Part 'A'



10x2= 20

- (i) What is the need of operating system?
- (ii) What is the main difference between operating systems for mainframe computers and personal computers?
- (jii) What is dead lock?
- (iv) Define process state?
- What is Virtual memory?

 What is process scheduling?

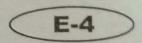
 (xii) What are input and output devices? Give an example of each.
 - (viii) Differentiate between distributed operating system and network operating system?
- (ix) What are the advantages of multiprocessing?
 - (x) Give any two advantages of multiprogramming?
- (xi) List various allocation methods?
- (xii) Define Loader.
- (xiii) What do you mean by spooling?

Attempt any 5 of the following questions:

 $5 \times 4 = 20$

- What is the difference between real time system and time sharing system?
- (ii) What are the differences between multiprocessing and multiprogramming?
- (iii) Compare contigous, linked and indexed disk space allocations.
- (iv) Name two major activities of an operating system with respect to process management and briefly describe why each is required?

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- (v) What is scheduler? List and describe different types of schedulers?
- (vi) Why is it difficult to protect a system in which users are allowed to do their own Input / Output?
- (vii) Explain the terms compiler and assembler? Give any two differences between them?
- (viii) Briefly explain sequential access and direct access devices?

PART-B

Attempt any 3 of the following questions:

 $3 \times 20 = 60$

- 3. (a) What are typical operating system services?
 - (b) Differentiate among the different types of operating systems?
- 4/ (a) What are the main limitations of contigous memory allocations?
 - (b) Explain the other memory allocation methods?
- 5. (a) What is a process scheduler?
 - (b) State the characteristics of good process scheduler?
 - 6. (a) What are objectives of file management system?
 - (b) Explain the file system architecture?
- 7 (a) Discuss the necessary conditions that cause dead lock?
 - (b) Discuss various methods for prevention of dead lock?

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