

Note :

1. 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'

1. Attempt any ten questions:

10x2= 20
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- (i) What is the need of operating system?
- (ii) What is the main difference between operating systems for mainframe computers and personal computers?
- (iii) What is dead lock?
- (iv) Define process state?
- (v) What is Virtual memory?
- (vi) What is process scheduling?
- (vii) 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?

2. Attempt any 5 of the following questions:

5 x 4 = 20
324

- (i) What is the difference between real time system and time sharing system?
- (ii) What are the differences between multiprocessing and multiprogramming?
- (iii) Compare contiguous, 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?

- (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 x 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 contiguous 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?

Exclusion