Roll No. ..... Total Pages: 03

7252

M.Sc. II[nd] Semester EXAMINATION, 2018

IT

Paper – II

(Operating System)

Time: Three Hours
Maximum Marks: 80

PART – A (खण्ड – अ) *[Marks: 20]*

*Answer all questions (**50** words each).*

All questions carry equal marks.

*सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर **50** शब्दों से अधिक न हो।*

सभी प्रश्नों के अंक समान हैं।

PART – B (खण्ड – ब) *[Marks: 40]*

*Answer five questions (**250** words each).*

*Selecting **one** from each unit. All questions carry equal marks.*

*प्रत्येक इकाई से **एक–एक** प्रश्न चुनते हुए, कुल **पाँच** प्रश्न कीजिए।*

*प्रत्येक प्रश्न का उत्तर **250** शब्दों से अधिक न हो।*

सभी प्रश्नों के अंक समान हैं।

PART – C (खण्ड – स) *[Marks: 20]*

*Answer any **two** questions (**300** words each).*

All questions carry equal marks.

*कोई **दो** प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर **300** शब्दों से अधिक न हो।*

सभी प्रश्नों के अंक समान हैं।

PART – A

UNIT –I

Q.1 (i) What is an operating system?

(ii) What is multiprocessor system?

(iii) What is a process?

(iv) Define multithreading model.

(v) What is a system model?

(vi) Define multiple - processor scheduling.

(vii) What is swapping?

(viii) Define virtual memory.

(ix) What is a access matrix?

(x) Define cryptography.

PART – B

UNIT –I

Q.2 What are the functions of an operating system?

Q.3 Differentiate between multiprogramming and multiprocessing.

UNIT –II

Q.4 What is process concept? Explain thread.

Q.5 Define process. Explain states of process with the help of suitable diagram.

UNIT –III

Q.6 Define CPU scheduling and criteria of CPU scheduling.

Q.7 Explain deadlock prevention method in computer system.

UNIT –IV

Q.8 Explain segmentation with paging along with example.

Q.9 Explain thrashing. What are the reasons of thrashing?

UNIT –V

Q.10 Explain protection. Write the goals of protection.

Q.11 Describe the difference between security and protection.

PART – C

Q.12 What is an operating system structure? Explain the different types of operating system structure.

Q.13 Discuss briefly the various issues involved in implementing inter process communication (IPC) in message passing system.

Q.14 What is a process scheduler? State the characteristic of a good process scheduler.

Q.15 What is paging? Explain the hardware support for implementing paging. Discuss the different page allocation algorithm.

Q.16 Write short notes on the following –

(a) Revocation of access rights

(b) Security systems and facilities
