

T.Y.B.SC. (COMPUTER SCIENCE) SEM –V (2014 COURSE) :

WINTER- 2017

SUBJECT: OPERATING SYSTEM

Day: Monday
Date: 23/10/2017

W-2017-0755

Time: 03.00 PM TO 05.00 PM
Max Marks: 40

N.B:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labeled diagram **WHEREVER** necessary.
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Q.1 Attempt **ANY TWO** of the following: **(10)**

- a) Describe various operations of file.
- b) Illustrate different types of system calls.
- c) Consider following set of Jobs.

Job	Arrival Time	Burst Time
P ₁	0	8
P ₂	1	4
P ₃	2	9
P ₄	3	5

Calculate the average turnaround time and total waiting time using SJF (Shortest Job First) algorithm.

Q.2 Answer **ANY TWO** of the following: **(10)**

- a) Write a note on demand paging.
- b) Explain different functions of operating system.
- c) Describe the conditions for preventing deadlock.

Q.3 Answer **ANY TWO** of the following: **(10)**

- a) Explain page replacement algorithm with an example.
- b) Illustrate contiguous memory allocation method with advantages and disadvantages.
- c) Elaborate the types of directory.

Q.4 Answer **ANY FIVE** of the following: **(10)**

- a) List out the types of files.
- b) What do you mean by overlap swapping?
- c) Define Buffering and spooling.
- d) Define deadlock.
- e) What is scheduling?
- f) What is interrupts?
- g) What is segmentation?

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