

Vidya Vikas Mandal's  
Shree Damodar College of Commerce & Economics, Margao-Goa  
First Year B.C.A, sem II, End semester examination – April 2019  
**Operating System Concepts (BCA-202)**

Total marks: 50

Duration: 2 hours

- Instructions: 1) All questions are **compulsory**.  
2) Figures to the right indicate full marks.

**Q.1. Define the following**

(5\*2=10 mks)

- a) Time slicing    b) Process creation    c) RAID  
d) Demand paging    e) Disk bandwidth

**Q.2 Answer the following**

- a) Explain any four file operations.  
b) Discuss the two main problems faced by Serial processing systems.  
c) Explain the services provided by the operating system.

2 mks

3 mks

5 mks

**Q.3 Answer the following**

- a) Briefly explain multi-level queue scheduling ?  
b) What is multiple-processor scheduling? Explain its approaches.  
c) Define Round robin scheduling. Consider the following four processes, with the length of the CPU burst given in milliseconds

2 mks

3 mks

5 mks

Process	Burst Time
$P_1$	53
$P_2$	17
$P_3$	68
$P_4$	24

Find out the average waiting time for this round robin schedule with a time quantum of 20 by giving a Gantt chart illustrating the execution of these jobs.

**Q.4 Answer the following**

- a) Define virtual memory.  
b) Explain any three different types of threats.  
c) What is segmentation? Explain the steps involved in handling a page fault with a diagram

2 mks

3 mks

5 mks

**Q.5 Answer the following**

- a) What is encryption?  
b) With a neat diagram explain the storage structure of a web O.S.  
c) What is a distributed operating system? Explain the design issues of the same.

2 mks

3 mks

5 mks

\*\*\*\*\* All the best \*\*\*\*\*