

**Goa Vidyaprasarak Mandal's
GOPAL GOVIND POY RAITURCAR COLLEGE OF COMMERCE AND ECONOMICS
Farmagudi, Ponda Goa.**

B.C.A. CBCS (SEMESTER II) END EXAMINATION, APRIL/MAY 2023

CORE COURSE

CAC-106 OPERATING SYSTEMS CONCEPTS

Duration: 2 hours

Total Marks: 60

Instructions: i) All questions are compulsory.

ii) Figures to the right indicate full marks.

Q1) A. Fill in the blanks **(5 x 1 mark)**

- i) Execute user programs and make solving user problems easier is _____
- ii) Two or more processes are waiting indefinitely for an event to occur is _____
- iii) Swapping variant used for priority-based scheduling algorithms is _____
- iv) Device with which the driver communicates by sending and receiving single characters is _____
- v) Pretending to be an authorized user to escalate privileges is _____

B. Answer the following **(5 x 1 mark)**

- i) What is a Processor ?
- ii) What is Base and Limit register ?
- iii) What is a Page fault?
- iv) What is a Remote file system ?
- v) What is Cryptography ?

Q2) A) Explain Two level directory. **(2 marks)**

B) Explain the Schematic view of swapping. **(3 marks)**

C) Define Round Robin scheduling algorithm. Consider the following three processes, with the length of the CPU burst given in milliseconds.

Process Queue	Burst time
P1	4
P2	3
P3	5

Find out the average waiting time for this Round Robin Schedule with the Quantum number 2ms by giving Gantt chart, illustrate the execution of these jobs. **(5 marks)**

Q3) A) Explain Mutual exclusion. **(2 marks)**

B) Explain Resource allocation graph. **(3 marks)**

C) Explain Four layered model of security. **(5 marks)**

P.T.O.

