PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2017
(Sixth Semester)

Branch- **ELECTRONICS**

REAL TIME OPERATING SYSTEM

Time : Three Hours   Maximum : 75 Marks

SECTION-A (20 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks   (1 0 x 2 = 20)

1   Define the term interrupt latency.
2   What isencryption and decryption routine?
3   What isnon pre-emptive RTOS?
4   What isCounting Semaphores?
5   What isMailboxes?
6   Give the uses of heartbeat timer.
7   Define time-slice.
8   State the role of ADSP protocol task.
9   What isa locator?
10   What iscalled as loader?

SECTION - B(25 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

11 a   Discuss the Principle of Round Rosin.
OR
b Describe briefly about the Real-Time operating system architecture.

12 a Write about task in an RTOS in all the task states.
OR
b Explain briefly about multiple Semaphores.

13 a Give an comparison of the methods for Intertask communications.
OR
b Briefly explain about mailboxes.

14 a Explain the basic principles used for RTOS design.
OR
b Discuss briefly about encapsulating Queues.

15 a Describe the process of executing data out of RAM.
OR
b Explain about PROM Programmers.

SECTION - C (30 Marks!
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16   Explain about the Round Robin with Interrupt and discuss it with communication bridge.

17   In detail discuss about Reentrancy function.

18   Discuss the rules of Interrupt Routines in an RTOS environment.

19   .Describe in detail about hard real time scheduling consideration.

20   Explain in detail how to locating program components properly.

Z-Z-Z   END