14ELU26

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2018
(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 (10 x 2 = 20)

1 Define RTOS.
2 What is ISR?
3 Mention the uses of Mutex.
4 What is Scheduler?
5 State in your own words about Queues.
6 Define IPC.
7 List out the manufacturers of Microprocessors.
8 Mention the uses of DDP.
9 Define Compilers.
10 What is Host Machine?

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

11 a Explain the operation of Round Robin method.
OR
b Sketch the architecture Real Time Operation System.

12 a Discuss the different states of TASK.
OR
b What is Reentrancy? Explain.

13 a Explain the function of Mailboxs.
OR
b Revise the concept of Events.

14 a Analyse about the saving power.
OR
b What is Hard Real Time? Explain.

15 a Write a note on Address Resolution.
OR •
b Illustrate the embedded software into target system.

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

16 Analyse the architecture of function queue scheduling.

17 Illustrate the Semaphores and shared Data problem.

18 Describe about the Memory Management.

19 Explain the underground tank monitoring system in detail.

20 Describe about the Cross Assembler, the Linker and Locators for embedded software.