Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code:U2502

M.E. DEGREE EXAMINATION, APRIL 2024

Second Semester

Power Electronics and Drives

21PPE202–EMBEDDED CONTROL OF POWER ELECTRONIC AND DRIVE SYSTEMS

(Regulations 2021)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Explain about the components of C2XX DSP core in detail   CO1-U   (20)

Or

    (b) Explain the various memory addressing modes of TMS320LF2407   CO1-U   (20)
         DSP processor.

2. (a) Explain in detail about Initializing and Servicing Interrupts in   CO1-U   (20)
         Software

Or

    (b) (i) Explain about Pin Multiplexing (MUX) and General Purpose   CO1-U   (20)
         I/O.
         (ii) Explain briefly about the interrupt concepts

3. (a) Draw and Explain the Quadrature Enclosed Pulse (QEP) Circuitry   CO1-U   (20)

Or

    (b) Draw the configuration diagram and explain about the GP timer   CO1-U   (20)

4. (a) Explain in detail about Programmable Interconnect Point (PIP)   CO1-U   (20)

Or

    (b) Compare CPLD Vs FPGA   CO1-U   (20)

5. (a) With neat sketch explain in detail about the PWM inverter   CO1-U   (20)

Or

    (b) With neat sketch explain in detail about DSP controller for   CO1-U   (20)
         DC Motor drive

U2501