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G.R. No.	
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PAPER CODE	U-34-241(CCESE)
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May 2022 (ENDSEM) EXAM

T.Y.B. Tech (E&TC) (SEMESTER - II)

COURSE NAME: Advanced Processors

COURSE CODE: ETUA32181C

(PATTERN 2018)

Time: [1Hr]

[Max. Marks: 30]

(*) Instructions to candidates:

- 1) Figures to the right indicate full marks.
- 2) Use of scientific calculator is allowed
- 3) Use suitable data wherever required

Q.1 a) What makes Cortex architecture more popular for embedded application with reference to its classical ARM predecessor series? [4]

b) Justify low power consumption in cortex architecture. [6]

OR

b) How different layers of CMSIS is significant to ease out the development of cortex-based application? [6]

Q2 a) How is bit banding implemented in LPC 1768? How are its benefit? [4]

b) How Power management in LPC1768 is different than LPC2148. Comment on effectivity of the same. [6]

OR

b) How LPC 1768 architecture is suitable for following category of applications? [6]

1. Lighting control
2. Motor control

Q.3 a) Illustrate the need of Using DSP processor in the application [4]

b) What is significance of MAC in DSP processor? How is pipeline implemented for MAC unit? [6]

OR

b) How to interface 07 segment display with LPC 1768? Explain an algorithm / code to display 00 to 99 on the same. [6]