Printed Page:-                                      **Roll No.**

# NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

## (An Autonomous Institute)

## Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

## M.Tech

## FIRST YEAR (SEMESTER-II) THEORY EXAMINATION  (2020-2021)

## (Subjective Type)

**Subject Code: AMTVL0201**                                             **Max. Mks. :  30**

**Subject: Digital Design Using FPGA and CPLD**            **Time      : 50 Minutes**

**General Instructions:**

*All questions are compulsory.*

*Question No. 1 to 15 are subjective type question carrying 3 marks each. Attempt any 10 out of 15 questions.*

| Q.No | Question Content | Question Image | Category | Sub Category | Marks | Options Randomization | Type | Difficulty |
|---|---|---|---|---|---|---|---|---|
| 1 | Draw the state diagram for T FF | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 2 | What will be the output for the expression Y=A.B + C.D, when A=0, B=1, C=1 and D=0. | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 3 | Define Static hazard. | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 4 | Draw the characteristics Table for JK FF. | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 5 | What is the difference between synchronous and asynchronous circuit? | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 6 | Classify PLDs. | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 7 | Differentiate between PAL and PLA. | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 8 | Write short notes on reprogrammable features of PLDs. | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 9 | What is Full custom design style in VLSI Design? | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |

| Q.No | Question Content | Question Image | Category | Sub Category | Marks | Options Randomization | Type | Difficulty |
|---|---|---|---|---|---|---|---|---|
| 10 | Give some differences between FPGA and ASIC. | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 11 | What does a Modern FPGAs include other than simple FPGAs? Explain it. | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 12 | What is LAB and EAB related to ALTERA FLEX 10K? | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 13 | Write Functional Description of Altera Max 5000 Series. | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 14 | What is ispLSI? | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |
| 15 | What do you mean by static 1 hazard? | | Attempt any 10 questions | 10 x 3=30 | 3 | | Subjective | Brilliant |