

**B.Sc. Semester-IV (NEP) Examination****DSC-M-244 T****Electronics****April-2025****Time : 1-00 Hour]****[Max. Marks : 25**

- Instructions :** (1) All questions are compulsory.  
(2) All questions carry equal marks.  
(3) Symbols used have their meaning as usual

- 1 ( a ) Write a note on classification of integrated circuits. 5  
( b ) Describe in brief the fundamentals of monolithic IC technology. 5

**OR**

Explain how silicon wafers are prepared. 10

- 2 Draw the circuit of a Hartley oscillator and explain its working. 10

**OR**

Draw the circuit of astable multivibrator and explain its operation. 10

- 3 Answer in short any five : 5

- ( 1 ) What is an integrated circuit?  
( 2 ) Name any one advantage of using integrated circuits over discrete component circuits.  
( 3 ) Name any one types of IC package.  
( 4 ) What is an oscillator?  
( 5 ) Give one use of Colpitt's oscillator.  
( 6 ) What is a multivibrator?
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