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**MA-221(Numerical Analysis)**  
**Course Instructor: Prof. Rajendra K. Ray**  
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**Lab Assignment-1**  
**Date: 28/01/2025**

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1. Convert the following decimal number into the other number system:

- (a)  $(231)_{10 \rightarrow 2}$
- (b)  $(2655)_{10 \rightarrow 16}$
- (c)  $(231)_{10 \rightarrow 8}$
- (d)  $(0.3125)_{10 \rightarrow 2}$
- (e)  $(0.3)_{10 \rightarrow 2}$

2. Convert the following binary number into the other number system:

- (a)  $(110111)_2 \rightarrow 10$
- (b)  $(1101.101)_2 \rightarrow 16$
- (c)  $(111011.011)_2 \rightarrow 8$
- (d)  $(111011.011)_2 \rightarrow 10$
- (e)  $(0.0101)_2 \rightarrow 10$

3. Convert the following number into the decimal number:

- (a)  $(1101.101)_2$
- (b)  $(347.623)_8$
- (c)  $(A5F.B42)_{16}$
- (d)  $(0.71)_8$

4. Convert the following number into the other number system:

- (a)  $(347.623)_8 \rightarrow 2$
- (b)  $(A5F.B42)_{16 \rightarrow 2}$
- (c)  $(56C.F)_{16 \rightarrow 10}$
- (d)  $(.AAAA \dots)_{16 \rightarrow 10}$

5. Add the following numbers:

- (a)  $(1295)_{10}$  and  $(357)_{10}$
- (b)  $(101011)_2$  and  $(11011)_2$
- (c)  $(1635)_8$  and  $(274)_8$
- (d)  $(5AB7)_{16}$  and  $(F63)_{16}$

6. Multiply the following numbers:

- (a)  $(7)_{10}$  and  $(5)_{10}$
- (b)  $(111)_2$  and  $(101)_2$
- (c)  $(7)_8$  and  $(5)_8$
- (d)  $(7)_{16}$  and  $(5)_{16}$