

# Motilal Nehru National Institute of Technology Allahabad

## Department of Computer Science and Engineering

End-Sem-Exam-2016

Subject: XML & Applications

Date 05/05/2016

Time: 9:30-12:30

Marks: 60

Q.1 [15] Real estate developers advertise their projects on internet providing details of their projects. These details include project location, start date, apartment layout and prices. Apartment layout is given as a diagram. An example layout of one bed room apartment is shown in Fig. 1. In the diagram, CL stands for closet and LN stands for Linen (towel stand) and P stands for pantry. Numbers indicate size of the room. Write a DTD to capture details of apartment layout and a sample XML file conforming to your DTD. State all your assumptions and describe your DTD also.

Q.2. [10] Write an XDR Schema for the given XML file.

```
<? xml version = "1.0" encoding = "UTF-8"?>
<transactions xmlns= " bankTransactionSchema.xdr">
<transaction tid="12345" > <date>25-11-2013</date>
<type> withdrawl </type> <amount> 1000 </amount>
<ac-no> 12334455677 </ac-no></transaction>
</transactions>
```

Q.3. [10] Write an Xml document with an external link that maintains the product description, customer data and manufacturer data. Product description should be a local resource. Customer data and manufacturer data should be remote resources. Each product has in-bound arcs from customer database as well as from manufacturer database. Also write your assumption clearly.

Q.4 (a). [05] Write a program in java script to find the contents of manufacturer tag element in the XML document shown below.

```
<?xml version= "1.0">
<productdata>
<product prod id = "p001" category = "toys">
<productname>minibus </productname>
<descripton> This is a toy for children </descripton>
```

<price> 75</price>

<manufacturer> LG company </manufacturer>

</product>

</productdata>

Q.5. [20] Answer all questions below. Questions are of equal marks

- (a) What is value of type attribute of a style element in a stylesheet ?
- (b) Write an example of explicit namespace declaration?
- (c) How do you declare an attribute which is an optional ?
- (d) Write the name of any XSLT processor.
- (e) What is normalization ?
- (f) Write the default value of element groups attribute minOccurs?
- (g) Write the namespace and prefix for XSD ?
- (h) Write abbreviation for parent::node() ?
- (i) Lists the node types of XPath tree which do not have parents?
- (j) In what cases, SAX parser is advantageous over DOM Parser?

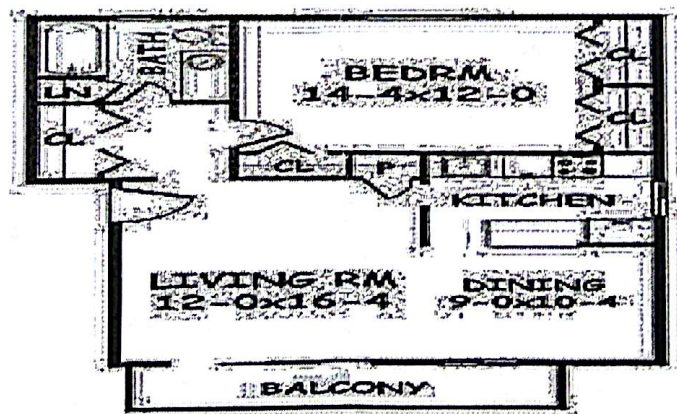


Figure 1