DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY PATNA
Ashok Raj Path, PATNA 800 005 (Bihar), India
Phone No.: 0612 – 2372715, 2370419, 2370843, 2371929, 2371930, 2371715 Fax – 0612- 2670631 Website: www.nitp.ac.in

No. Date.

Routine for Institution of Engineers Candidate

The students appearing in Section B Examination (Computer Science and Engineering) of The Institution of Engineers (India), 8, Gokhale Road. Kolkata-700012 at NIT Patna are directed to report to CSE office, NIT Patna at 10 AM for Laboratory experiments to be carried out at Network System Lab, Ground Floor, CSE Department from 23.11.2020 to 27.11.2020 are as follows:

<table>
<tr><th>Sl.No.</th><th>Date</th><th>Laboratory Experiment</th><th>Held at Laboratory</th></tr>
<tr><td>1</td><td>23.11.2020</td><td>Maintain an array whose size can be known during the execution time of the program only. Implement such an array, initialize it/ and display its contents.</td><td>Network system Lab</td></tr>
<tr><td>2</td><td>23.11.2020</td><td>Develop a Function on 'C' that splits a list into two other lists so that the entries that were in odd-numbered positions are now in one list (in the same relative order as before) and those from even-numbered position are in another new list</td><td>Network system Lab</td></tr>
<tr><td>3</td><td>24.11.2020</td><td>Find expected number of passes, Comparisons and exchanges for bubble sort when n-12 and compare them with actual number of these operations when the given sequence is as follows: 8,6,4,3,7,9,5,12,1,11,10,2</td><td>Network system Lab</td></tr>
<tr><td>4</td><td>24.11.2020</td><td>Define a node with the following structure:
<table><tr><td>Data</td><td>Link</td></tr></table>Read n elements, allocate them into n nodes in a linked list:
(a) Insert a node after a given node;
(b) Delete a node containing some elements
(c) Search a node for a given element.</td><td>Network system Lab</td></tr>
<tr><td>5</td><td>25.11.2020</td><td>Design on paper a full 18 X16 barrel shifter.</td><td>Network system Lab</td></tr>
<tr><td>6</td><td>25.11.2020</td><td>Design o 4-bit, function arithmetic unit that will meet the following specification.
<table><tr><th>S2</th><th>S1</th><th>S0</th><th>Function</th></tr><tr><td>0</td><td>0</td><td>0</td><td>2A</td></tr><tr><td>0</td><td>0</td><td>1</td><td>A+B</td></tr><tr><td>0</td><td>1</td><td>0</td><td>A+B</td></tr><tr><td>0</td><td>1</td><td>1</td><td>A-1</td></tr><tr><td>1</td><td>0</td><td>0</td><td>2A+1</td></tr><tr><td>1</td><td>0</td><td>1</td><td>A+B+1</td></tr><tr><td>1</td><td>1</td><td>0</td><td>A+B+1</td></tr><tr><td>1</td><td>1</td><td>1</td><td>A</td></tr></table></td><td>Network system Lab</td></tr>
</table>

7	26.11.2020	Design a 4-bit synchronous counter and study its function	Network system Lab
8	26.11.2020	Design a 4-bit asynchronous counter and study its function	Network system Lab
9	27.11.2020	To draw the system flow-chart showing the following steps in processing customers sales order. a) Open the mail b) Make an entry in an 'Order log' recording the receipt of each order c) Edit the order for missing or erroneous information; if no error go to (e), else go to (d) d) Add any needed information e) Check the customer's credit rating. f) Forward orders from customers with bad credit ratings to the credit manager. If he rejects it, the party is to be intimated; otherwise go to (g) g) Forward orders-from customers to the Key punch department h) Place the safes order in a file i) Sort the sales order cards using computer into item number sequence j) Process the sales order cards against the inventory master file producing an updated master file and a printed listing of each transaction.	Network system Lab
10	27.11.2020	To describe in detail a pay roll data processing application giving inputs, outputs and files required. Draw a system flow-chart and show the structure of input documents and output reports.	Network system Lab

HOD

Copy to: -

1.CSE Notice Board