

**Code No: 156BJ****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, August/September - 2021****INTERNET OF THINGS****(Information Technology)****Time: 3 Hours****Max. Marks: 75**

**Answer any five questions**  
**All questions carry equal marks**

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1. List the different types of IoT enabling Technologies. Describe them in detail. [15]
2. How can we collect the different types of data generated by a forest fire detection system? Explain the alternative approach for the same and also specify what type of analysis is required for forest fire detection from the data collected? [15]
3. With the help of a neat sketch, explain the IoT Device Management with NETCONF – YANG. [15]
- 4.a) Why we need IoT systems management?  
b) Write a short notes on NETCONF protocol layers. [7+8]
5. What is a function? List their advantages? With the help of syntax and example program explain the various types of functions that can be defined based on return type and arguments. [15]
- 6.a) Write a python program to find any given string is palindrome or not, don't use built – in functions.  
b) Write a python program to find the sum of individual digits of any given number (Note:  $1234=1+2+3+4 = 10$ ). [8+7]
7. Write a python code using raspberry pi to display traffic signals. [15]
- 8.a) Write and explain any three basic APIs.  
b) Give brief information about the service models of a cloud computing. [7+8]

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