

M.Sc. - II (Computer Science) (NEP Pattern) - Semester-III
03MSCCS04.3 - Elective-III Paper-V : Internet of Things (IOT)

P. Pages : 2

Time : Two Hours



GUG/W/24/15972

Max. Marks : 40

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- Notes :
1. All questions are compulsory & carry equal marks.
 2. Draw neat & labelled diagram wherever necessary.
 3. Avoid vague answers & write answers relevant & specific to questions only.

Either

1. a) Describe concept of IOT in detail? Explain it's applications? 4
- b) Explain following. 4
 - i) IOT layers
 - ii) IOT system architecture

OR

- c) Describe objective & principle of IOT? Explain its advantages & disadvantages. 4
- d) Describe working of IOT system? Explain it's security & privacy issues? 4

Either

2. a) Explain purpose & feature of IOT development boards? 4
- b) Explain following: 4
 - i) Fogwing
 - ii) Mulesoft

OR

- c) Explain types of IOT board categories? 4
- d) Explain following : 4
 - i) Curl
 - ii) Platform IO

Either

3. a) Define actuator? Explain human attention actuator in detail? 4

- b) Discuss about IOT oriented communication protocol? 4

OR

- c) Explain components of IOT development board? 4
- d) Differentiate between analog sensors & digital sensors? 4

4. Either

- a) Write note on : 4
- i) EMQ X cloud
 - ii) Cloud plugs IOT
- b) Explain following : 4
- i) Google cloud IOT
 - ii) Oracle IOT cloud

OR

- c) Describe benefits of cloud for IOT project in detail? 4
- d) Write steps on interfacing & installing of Arduino IDE 4

5. Attempt all questions compulsory.

- a) Explain meaning of things in IOT & its challenges? 2
- b) Discuss in short 2
- i) Raspberry Pi
 - ii) Banana Pi
- c) Describe role of protocol in short? 2
- d) Explain short about: 2
- i) Programming Arduino
 - ii) Solderless breadboard
