SEAT No. :

PA-3179

[Total No. of Pages : 2

[5926]-268

T.E. (Printing Engineering)(Honors)
INTERNET OF THINGS
(2019 Pattern) (Semester-I) (308211)

Time : 2½ Hours] [*Max. Marks : 70*

Instructions to the candidates:

1) *Solve Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
2) *Figures to the right indicate full marks.*
3) *Assume suitable data, if necessary.*
4) *Neat diagrams must be drawn wherever necessary.*

Q1) a) Explain the characteristics of sensors and actuators. **[9]**

b) Explain the LDR interfacing using Arduino Board. **[9]**

OR

Q2) a) Explain working and characteristics of any two types of sensors used in printing industry. **[9]**

b) Explain the servo-motor interfacing using Arduino Board. **[9]**

Q3) a) Explain the Wi-Fi Communication system and explain the FHSS and DSSS technique used in WiFi. **[8]**

b) Explain the pinouts of ESP8266. **[9]**

OR

Q4) a) Explain any two protocols used in IOT applications. **[8]**

b) Explain the following instructions: **[9]**
1. pinMode(LED_BUILTIN, OUTPUT);
2. servo_7.attach(7, 500, 2500)
3. digitalWrite(LED_BUILTIN, HIGH);
4. noTone(0)
5. Serial. println("hello world")
6. digitalRead(11);
7. analogRead(A0)
8. #include <Servo.h>
9. pinMode(6, OUTPUT)

P.T.O.

Q5) Describe benefits of cloud platform and explain Infrastructure As A Service and Platform As A Service (PAAS). **[18]**

OR

Q6) Describe the issues and challenges in IOT. **[18]**

Q7) Describe in detail about application of IOT in healthcare sector and smart city.**[17]**

OR

Q8) Explain the role of IOT implementation in Printing industry. **[17]**

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