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**Question Paper Code: 58462**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

ONE CREDIT COURSE

Electronics and Communication Engineering

15UEC862 - PCB DESIGN

(Regulation 2015)

Duration: One hour

Maximum: 50 Marks

Answer ALL Questions

PART A - (30 x 1 = 30 Marks)

- What kind of paper is used for PCB layout
  - Butter flim
  - A4
  - plastic coated paper
  - Normal paper
- What are the precautions are made using pcb designing?
  - wearing gloves
  - check the current
  - check the voltages
  - all of these
- What factors influence PCB fabrication cost?
  - PCB size
  - Layer count
  - Hole diameter
  - All the above
- The component which character is to oppose current flow
  - Capacitor
  - Resistor
  - Diode
  - Transistor
- A rheostat is a form of
  - variable capacitor
  - variable resistor
  - potentiometer
  - thermocouple
- Example of a Photo resistor
  - LDR
  - Photo diode
  - Diode
  - CFL

7. Who discovered the lcd
- (a) Friedrich Reinitzer (b) willismith  
(c) williyam Marconi (d) jeorgeH.hailmier
8. A capacitor and a coil in parallel is called
- (a) A tuned circuit (b) A timing circuit  
(c) A delay circuit (d) A Schmitt circuit
9. Define ohm's law
- (a)  $V=IR$  (b)  $V=I/R$  (c)  $V=R/I$  (d)  $I=VR$
10. The diode used for rectifier circuit is
- (a) 1N4001 (b) 1N5001 (c) 1N 8086 (d) none of these
11. Example for semiconductor
- (a) Diode (b) Resistor (c) Capacitor (d) Inductor
12. Which having the ability to generate extremely short pulses
- (a) Step Recovery Diode (SRD) (b) Constant Current Diodes  
(c) Schottky Diode (d) Shockley Diode
13. Transformer used for 230 to 12 volt conversion is
- (a) step up (b) step down (c) both a & b (d) none of these
14. Voltage regulator is used for
- (a) constant voltage (b) constant current (c) both a & b (d) none of these
15. Piezo-electric convert
- (a) Electrical into mechanical (b) Mechanical into electrical  
(c) Vibration into electrical (d) Electrical into light
16. The 555 timer is used for
- (a) pulse generation (b) pulse modulation  
(c) pulse demodulation (d) pulse width modulation
17. LM-293(H-bridge) act as a driver circuit for
- (a) Motor (b) Rectifier (c) Condensor (d) None of these

18. LED stands for
- (a) light emitting diode (b) light emitted display  
(c) liquid emitted display (d) none of these
19. LDR stands for
- (a) light dependent resistor (b) light dependent resonator  
(c) long delay resistor (d) light delay resistor
20. Which controlling the level of voltage
- (a) Potentiometer (b) Diode (c) Rectifier (d) IC
21. Sensor which is used to sense human
- (a) IR (b) PIR  
(c) Precipitations (d) Accelerometer
22. Which convert physical energy into electrical energy Vice-Versa?
- (a) Motor (b) Transducer (c) Precipitations (d) OP-AMP
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- (a) Motor (b) Transducer (c) Precipitations (d) OP-AMP
24. The most popular form of IC package is
- (a) DIL (b) Flat pack (c) TO-5 (d) None of these
25. The process of removing copper in the pcb designing board is called
- (a) eracing (b) enhancing (c) etching (d) evoparating
26. What is the function of IC 555
- (a) Time delay (b) Desired output (c) voltage regulator (d) Standard time
27. Which of the following is most difficult to fabricate in an IC?
- (a) Diode (b) Transistor (c) FET (d) Transformer
28. SPST stands for
- (a) single pole single through (b) single polymorised single through  
(c) systamatic pole single through (d) silicon polymorised switch
29. In a ac house hold appliance the frequency is in \_\_\_\_\_ Hz
- (a) 230 (b) 220 (c) 50 (d) 60

30. Which IC Senses analog voltage levels

- (a) LM 3914      (b) MAX 232      (c) IC4017      (d) IC555

PART - B (1 x 20 = 20 Marks)

31. (a) (i) Give the types of diodes with necessary diagrams. (10)

(ii) Explain the working function of the following circuits. (10)

Or

(b) (i) Explain the working function of the following circuits. (10)

(ii) What are the colours in Resistor and also find the resistance value using colour coding with an example. (10)

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