

# **MODEL QUESTION PAPER**

**DSE2/DSET2**

## **III Semester DIPLOMA Examination, August 2011 ELECTRONICS DEVICES**

Time: 3 Hours

Max. Marks: 75

### **GROUP A : Answer any three questions.**

- Q.1 Explain with neat diagram of full wave rectifier.
- Q.2 Write short note on IP Emitter.
- Q.3 Explain the characteristics of UJT and write down its application
- Q.4 Draw the symbol for DIAC & Mention the advantages of DIAC.
- Q.5 Write down the comparison between JFET and BJT.

### **GROUP B : Answer any three questions.**

- Q.6 Comparison between Half wave rectifier, full wave rectifier and Bridge rectifier?
- Q.7 What are the main classifications of electronic components? Explain.
- Q.8 Explain with neat diagram of construction and working of monostable multivibrator.
- Q.9 Draw the input & output characteristics of CC configuration.
- Q.10 Explain with neat diagram of FET as chopper.

### **GROUP C: All Questions are Compulsory.**

#### **Q.11 Fill in the blanks**

- (i) UJT as a \_\_\_\_\_ oscillator.
- (ii) Heart of any oscillator circuit is \_\_\_\_\_ circuit.
- (iii) In cut off and saturation region transistor acts as \_\_\_\_\_.
- (iv) The MOSEFT is an abbreviation of \_\_\_\_\_.
- (v) AC load line is occurred in \_\_\_\_\_ signal condition.

#### **Q.12 Multiple choice question.**

- (i) Range of frequencies over which gain is equal to or greater than 70% of maximum gain is called \_\_\_\_\_.
  - (a) Beamwidth
  - (b) Bandwidth
  - (c) Positive feedback
  - (d) Negative feedback
- (ii) A device is used in lamp dimmer circuit.
  - (a) Triac
  - (b) Diac
  - (c) MOSFET
  - (d) IGBT

- (iii) A photo conductive cell is also called as \_\_\_\_\_.  
(a) Light dependent resistor      (b) Light emitting diode  
(c) Liquid crystal display      (d) Seven segment display
- (iv) Total phase shift provided by oscillator circuit is?  
(a)  $90^\circ$       (b)  $180^\circ$   
(c)  $360^\circ$       (d) 2
- (v) A multi-vibrator generators \_\_\_\_\_.  
(a) Square wave      (b) Sine wave  
(c) Ramp wave      (d) Pulse

**Q.13 True or false**

- (i) Advantage of positive feedback is to increase the gain.  
(ii) Disadvantage of capacitor input filter is poor voltage regulation.  
(iii) To work transistor as an amplifier both the junctions should work in forward biased.  
(iv) A thin layer of 'N' type material and fuse 'P' material on either side, we will get PNP Transistor.  
(v) Uni junction (UJT) is a three terminal silicon semiconductor.

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