

III/SEM/CSE/IT/2015 (W)

(2)

FUNDAMENTAL OF ELECTRONIC DEVICES

Sub Code-ETT 322

Full Marks : 70

Time : 3 hours

Answer any five questions

The figures in the right-hand margin indicate marks

- 1. (a) Define doping. What is the purpose of doping? 2
- (b) Explain the principle of negative feedback with block diagram. 5
- (c) Describe the construction and working of n-channel MOSFET. 7
- 2. (a) What is peak inverse voltage? 2
- (b) Explain the current flow due to hole in semiconductor. 5
- (c) Describe the principle and construction of push pull amplifier with neat diagram. 7
- 3. (a) Differentiate between voltage and power amplifier. 2

- (b) Explain the essentials of transistor oscillator with neat diagram. 5
- (c) Describe the V-I characteristic of PN junction. 7
- 4. (a) Define tuned amplifier. 2
- (b) Explain the forward bias of PN junction. 5
- (c) Describe the construction and working of Wien bridge oscillator with a neat circuit diagram. http://www.sctevtonline.com 7
- 5. (a) Define damped and undamped oscillation. 2
- (b) Derive the collector efficiency of Class A power amplifier. 5
- (c) Derive the input and output impedance of negative feedback. 7
- 6. (a) Define heat sink. 2
- (b) Derive the voltage gain of JFET. 5
- (c) Explain the construction and working of Colpitt oscillator with a neat circuit diagram. 7
- 7. (a) Differentiate between JFET and BJT (any two). 2

(Turn Over)

http://www.sctevtonline.com

http://www.sctevtonline.com

http://www.sctevtonline.com

http://www.sctevtonline.com

(3)

- (b) Explain the single tuned amplifier with a neat circuit diagram. 5
- (c) Describe the construction and working of phase shift oscillator with a neat diagram. 7

<http://www.sctevtonline.com>

Whatsapp @ 9300930012

Your old paper & get 10/-

पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से