

Roll No.

24142

B. Tech 4th Semester (E. E.)

Examination – May, 2013

ANALOG ELECTRONICS

Paper : EE-202-F

Time : Three hours]

[Maximum Marks : 100

Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions, Question No. 1 is *compulsory* and *one* question from each of *four* Sections.

1. (a) Discuss in brief about working of p-n junction decoder on a half wave rectifier.
- (b) Compare (i) PMOSFET with NMOSFET (ii) JFET with BJT.
- (c) Explain working of op-amp as inverting amplifier.
- (d) Discuss various proportion of negative feedback.

5 x 4

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P. T. O.

SECTION – A

2. Draw the circuit for bridge rectifier and derive the expression for : 20
- (i) Ripple factor
 - (ii) Efficiency
 - (iii) D.C. current
 - (iv) PIV
3. (a) Write short notes on various types of filter. 10
- (b) Draw the circuit for : 10
- (i) Voltage Doubler,
 - (ii) Peak to Peak detector.

SECTION – B

4. Draw the structure and discuss the operation for :
- (a) N-channel MOSFET. 10
 - (b) Draw and explain frequency response of CS amplifier. 10
5. (a) Discuss in brief about various types of biasing circuits used in MOS amplifiers. 14
- (b) Write short notes on MOSFET as a switch. 6