



JB-3164

Second Year B.Sc. (Sem. IV) Examination

April/May – 2013

Circuit Simulation

(IDS CAN Course for Electronics)

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दृशायेव निशानीवाणी विगतो उत्तरवही पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="Second Year B.Sc. (Sem. 4)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Circuit Simulation"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="1"/> <input type="text" value="6"/> <input type="text" value="4"/>	<input type="text"/>
Section No. (1, 2,.....): <input type="text" value="Nil"/>	<input type="text"/>
	Student's Signature

- (2) Figures on the right indicate full marks.
- (3) All symbols and abbreviations have their usual meaning.
- (4) Non-programmable calculators are allowed.
- (5) Q. 1 is compulsory.

- 1 (a) What is a drill chart ? 14
- (b) What is the importance of design manager ?
- (c) What is AC sweep analysis ?
- (d) What is grid ?
- (e) Explain the meaning of circuit simulation.
- (f) What is a PCB ? What is a grid on PCB design tool ?
- (g) What is part value in schematic design tool ?

- 2 (a) What is Probe utility of the circuit analysis in Microsim Design Lab ? 10
- (b) Using DC calculation method explain the analysis method of Kirchoff's current law. 4

OR

- 2 (a) What is stimulus editor ? Explain the method of DC sweep analysis. 10
- (b) Using the stimulus editor show how will you make a study of diode characteristics ? 4

- 3 (a) Explain the method of creating a new workspace using the Microsim design lab. How will you start the schematic design tool ? 10
- (b) Using the schematic design tool explain the method to draw the circuit of universal transistor biasing circuit. 4

OR

- 3 (a) What do you understand by auto routing and auto placing ? 10
- (b) Explain why do we use different track thickness of power and ground signals on the PCB ? 4
- 4 (a) What is a design manager ? Explain how you will create your design using design manager. Explain the schematic design tool giving suitable example. 10
- (b) Create a circuit to explain the Kirchoff's voltage law. Using the bias point calculation establish the Kirchoff's voltage law. 4

OR

- 4 (a) What is the method of checking the Symbol library ? How the reference designator and the part values be changed ? 10
- (b) What is the method of placing a power and ground in the circuit ? What is its importance ? 4
- 5 Write short notes on : (any two) 14
- (a) Library editor
- (b) Editing footprints
- (c) As sweep analysis
- (d) Arranging components.