EDC(25EC104)

UNIT–V

S.No		Questions	BT	CO	PO
Part–A(Short Answer Questions)					
1		Compare BJT and FET.	2	5	1
2		Define FET and Explain the classification of FET	1	5	1
3		Define Trans conductance of FET?	2	5	1
4		Define MOSFET. How it is different from JFET?	2	5	1
5		What is meant by enhancement mode MOSFET?	2	5	1
6		What is meant by Depletion mode MOSFET?	2	5	1
7		What is a MOSFET? How many types of MOSFETs are there?	2	5	1
8		Write a short note on pinchoff voltage	1	5	2
9		Why N-channel MOSFET preferred over P-channel MOSFET?	2	5	1
10		How FET acts as voltage variable resistor?	1	5	1
11		Give the relationship among FET parameters.	2	5	1
12		Draw the symbols of MOSFET?	1	5	1
13		Explain about terminals of JFET.	1	5	1
14		How FET acts as Voltage Variable Resistor?	2	5	1
15		Why the input impedance of FET is higher than BJT?	1	5	1
16		Mention the applications of FET.	2	5	1
Part– B(Long Answer Questions)					
17	a)	With the help of a neat diagram explain the operation of an n-Channel enhancement type MOSFET	4	5	2
	b)	Detail the construction of an p-channel MOSFET of depletion type. Draw and explain its characteristics	4	5	2
18	a)	Differentiate Enhancement MOSFET and Depletion MOSFET	4	5	2
	b)	With neat sketches, necessary equations explain drain and transfer characteristics of MOSFET in depletion mode.	3	5	3
19	a)	Illustrate the working mechanism of JFET with necessary diagram	4	5	3
	b)	What is the relation among FET parameters	3	5	3
20	a)	Differentiate BJT and FET?	2	5	2
	b)	Explain the operation of FET with its characteristics and explain the different regions in its drain characteristics.	1	5	2

S.No	Questions	BT	CO	PO
Part–A(Short Answer Questions)				
1	Draw zener diode characteristics	2	5	1
2	Write the applications of photo diode and draw its symbol.	2	5	1

3		Write a short notes on varactor diode.	2	5	1
4		Explain voltage regulation using Zener diode.	2	5	1
5		What is tunneling and list out the applications of tunnel diode.	2	5	1
6		What are the applications of UJT	2	5	2
7		Draw V-I characteristics of UJT and explain graph	2	5	2
8		Write short notes on SCR	2	5	2
9		Draw Zener Diode Characteristics.	2	5	2
10		Write short notes on Schottky diode	2	5	1
11		Explain why an SCR is operated only in the forward biased condition.	2	5	1
Part– B(Long Answer Questions)					
12	a)	Write short notes on varactor diode	3	5	2
	b)	Draw the symbol and equivalent circuit of a UJT. Explain the operation of UJT with the help of its V – I characteristics	4	5	2
13	a)	Distinguish between Avalanche and Zener breakdown.	2	5	2
	b)	With neat diagram explain the operation of zener diode and its forward and reverse characteristics	3	5	2
14	a)	Describe the principle of operation of tunnel diode. Draw its V-I characteristics	3	5	1
	b)	Explain the working of semiconductor photodiode. Draw its V-I characteristics.	2	5	1
15	a)	Explain the construction of SCR with neat diagram. Draw its V-I characteristics.	4	5	2
	b)	With a neat diagram explain the working of Varactor Diode.	4	5	2