7 urs / 100 M	arks	Seat N	[o.]		Π				T	
	(1) All qu	estions are c	ompulso	•					1	
			-			-	_	er nec	essar	y.
			rammabl	e Elect	ronic	Pod	cket (Calcu	lator	is
				•				ттин	icatio	on
									I	Marks
Attempt any six of	following:									12
a) Draw symbol o	f P-N diode	, Zener diode								
b) Define the term	rectification	efficiency and	d rectifier.							
c) List the types of	Biasing in E	BJT.								
d) Draw output cha	aracteristics	showing diffe	rent regio	on in CE	confi	gurat	ion.			
e) Define the term	voltage regu	ılation factor s	state need	l of volta	ge re	gulati	on.			
f) Draw pin config	guration of I	C 723.								
g) Draw symbol o	f NAND Ga	ate and NOR	Gate.							
h) Convert:										
i) $(456)_D = ($	$_{\rm B}$	ii) (5A)	$H = ()^{D}$							
Attempt any two of	following:									8
a) Compare intrins	sic and extrir	nsic semicond	luctor (an	y 4 point	ts).					
b) Explain full way	e bridged rec	tifier with the l	help of cir	cuit diag	ram aı	nd inp	out out	put wa	veforn	n.
c) Explain working	g of n-p-n tra	nsistor in unb	oiased cor	ndition.						
empt any four of fol	llowing:									16
List specification of	zener diode	(any 4).								
Compare half wave	rectifier, full	wave centre ta	apped rec	tifier and	l full v	vave	bridge	erectif	ier w.r.	.t.
1) Efficiency	,		Ripple fa				C			
		- ,								
3) TUF			Output w		1					
	Attempt any six of a) Draw symbol of b) Define the term c) List the types of d) Draw output cha e) Define the term f) Draw pin config g) Draw symbol of h) Convert: i) (456) _D = (Attempt any two of a) Compare intrins b) Explain full wav c) Explain working empt any four of fol List specification of Compare half wave	Instructions: (1) All queces (2) Answer (3) Illustrictions (4) Use of permit (5) Mobilidevices Attempt any six of following: a) Draw symbol of P-N diode b) Define the term rectification c) List the types of Biasing in Edd (1) Draw output characteristics (2) e) Define the term voltage regulation of Ingular (2) Draw symbol of NAND Galatic (3) Draw symbol of NAND Galatic (4) Draw of following: a) Convert: i) (456) _D = (1) _B Attempt any two of following: a) Compare intrinsic and extring (4) Explain full wave bridged record (2) Explain working of n-p-n transfer (3) Explain full wave rectifier, full (4) Explain full (4) Expla	Instructions: (1) All questions are c (2) Answer each next (3) Illustrate your ans (4) Use of Non-programermissible. (5) Mobile Phone, Pagadevices are not per Attempt any six of following: a) Draw symbol of P-N diode, Zener diode b) Define the term rectification efficiency and c) List the types of Biasing in BJT. d) Draw output characteristics showing differed before the term voltage regulation factors f) Draw pin configuration of IC 723. g) Draw symbol of NAND Gate and NOR h) Convert: i) (456) _D = () _B ii) (5A) Attempt any two of following: a) Compare intrinsic and extrinsic semicond b) Explain full wave bridged rectifier with the left compare intrinsic of the program	Instructions: (1) All questions are compulso (2) Answer each next main que (3) Illustrate your answers with (4) Use of Non-programmable permissible. (5) Mobile Phone, Pager and a devices are not permissible Attempt any six of following: a) Draw symbol of P-N diode, Zener diode. b) Define the term rectification efficiency and rectifier. c) List the types of Biasing in BJT. d) Draw output characteristics showing different region e) Define the term voltage regulation factor state needs f) Draw pin configuration of IC 723. g) Draw symbol of NAND Gate and NOR Gate. h) Convert: i) (456) _D = () _B ii) (5A) _H = () _D Attempt any two of following: a) Compare intrinsic and extrinsic semiconductor (and b) Explain full wave bridged rectifier with the help of circle contempt any four of following: List specification of zener diode (any 4). Compare half wave rectifier, full wave centre tapped recompare half wave rectifier.	Instructions: (1) All questions are compulsory. (2) Answer each next main question of (3) Illustrate your answers with neat si (4) Use of Non-programmable Elect permissible. (5) Mobile Phone, Pager and any other devices are not permissible in Example Elect permissible in Exa	Instructions: (1) All questions are compulsory. (2) Answer each next main question on a n (3) Illustrate your answers with neat sketch (4) Use of Non-programmable Electronic permissible. (5) Mobile Phone, Pager and any other Electronic are not permissible in Examination. Attempt any six of following: a) Draw symbol of P-N diode, Zener diode. b) Define the term rectification efficiency and rectifier. c) List the types of Biasing in BJT. d) Draw output characteristics showing different region in CE confice. e) Define the term voltage regulation factor state need of voltage regulation factor	Instructions: (1) All questions are compulsory. (2) Answer each next main question on a new p. (3) Illustrate your answers with neat sketches will (4) Use of Non-programmable Electronic Poole permissible. (5) Mobile Phone, Pager and any other Electronic devices are not permissible in Examination II. Attempt any six of following: a) Draw symbol of P-N diode, Zener diode. b) Define the term rectification efficiency and rectifier. c) List the types of Biasing in BJT. d) Draw output characteristics showing different region in CE configurate. e) Define the term voltage regulation factor state need of voltage regulation for Draw pin configuration of IC 723. g) Draw symbol of NAND Gate and NOR Gate. h) Convert: i) (456) _D = () _B ii) (5A) _H = () _D Attempt any two of following: a) Compare intrinsic and extrinsic semiconductor (any 4 points). b) Explain full wave bridged rectifier with the help of circuit diagram and ing c) Explain working of n-p-n transistor in unbiased condition. empt any four of following: List specification of zener diode (any 4). Compare half wave rectifier, full wave centre tapped rectifier and full wave	Instructions: (1) All questions are compulsory. (2) Answer each next main question on a new page. (3) Illustrate your answers with neat sketches wherever. (4) Use of Non-programmable Electronic Pocket Contents permissible. (5) Mobile Phone, Pager and any other Electronic Contents are not permissible in Examination Hall. Attempt any six of following: a) Draw symbol of P-N diode, Zener diode. b) Define the term rectification efficiency and rectifier. c) List the types of Biasing in BJT. d) Draw output characteristics showing different region in CE configuration. e) Define the term voltage regulation factor state need of voltage regulation. f) Draw pin configuration of IC 723. g) Draw symbol of NAND Gate and NOR Gate. h) Convert: i) (456) _D = () _B ii) (5A) _H = () _D Attempt any two of following: a) Compare intrinsic and extrinsic semiconductor (any 4 points). b) Explain full wave bridged rectifier with the help of circuit diagram and input out c) Explain working of n-p-n transistor in unbiased condition. empt any four of following: List specification of zener diode (any 4). 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Attempt any six of following: a) Draw symbol of P-N diode, Zener diode. b) Define the term rectification efficiency and rectifier. c) List the types of Biasing in BJT. d) Draw output characteristics showing different region in CE configuration. e) Define the term voltage regulation factor state need of voltage regulation. f) Draw pin configuration of IC 723. g) Draw symbol of NAND Gate and NOR Gate. h) Convert: i) (456) _D = () _B ii) (5A) _H = () _D Attempt any two of following: a) Compare intrinsic and extrinsic semiconductor (any 4 points). b) Explain full wave bridged rectifier with the help of circuit diagram and input output was c) Explain working of n-p-n transistor in unbiased condition. empt any four of following: List specification of zener diode (any 4). Compare half wave rectifier, full wave centre tapped rectifier and full wave bridge rectifier.	Instructions: (1) All questions are compulsory. (2) Answer each next main question on a new page. (3) Illustrate your answers with neat sketches wherever necessar. (4) Use of Non-programmable Electronic Pocket Calculator permissible. (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall. Attempt any six of following: a) Draw symbol of P-N diode, Zener diode. b) Define the term rectification efficiency and rectifier. c) List the types of Biasing in BJT. d) Draw output characteristics showing different region in CE configuration. e) Define the term voltage regulation factor state need of voltage regulation. f) Draw pin configuration of IC 723. g) Draw symbol of NAND Gate and NOR Gate. h) Convert: i) (456) _D = () _B ii) (5A) _H = () _D Attempt any two of following: a) Compare intrinsic and extrinsic semiconductor (any 4 points). b) Explain full wave bridged rectifier with the help of circuit diagram and input output waveform c) Explain working of n-p-n transistor in unbiased condition. empt any four of following: List specification of zener diode (any 4). Compare half wave rectifier, full wave centre tapped rectifier and full wave bridge rectifier w.r.

d) Explain construction of n-channel JFET with neat sketch.

		Mar	ks
	e)	Compare CE, CB, CC w.r.t. to 1) Current gain 2) Voltage gain 3) Input impedance 4) Output impedance	
	f)	Explain with circuit diagram operation of zener diode as voltage regulator.	
3.	Atı	tempt any four of following:	16
		Draw experimental circuit diagram and characteristics for forward biased P-N junction diode.	
	b)	Explain with circuit diagram fixed bias method of BJT.	
	c)	Draw and explain VI characteristics of UJT.	
	d)	Draw and explain working principle of N-channel enhancement MOSFET.	
	e)	Draw block diagram of DC regulated power supply state function of each block.	
	f)	Explain NAND gate as universal gate implement AND, OR and NOT gate using NAND gate only.	
4.	Att	tempt any four of following:	16
	a)	Explain operating principle of LASER.	
	b)	Explain class B push pull power amplifier with circuit diagram.	
	c)	Draw input and output characteristics of CB configuration.	
	d)	Explain with circuit diagram transformer coupled amplifier.	
	e)	Draw and explain output characteristics of JFET.	
	f)	Explain with circuit diagram transistorised series voltage regulator.	
5.	Atı	tempt any four of following:	16
	a)	Compare BJT with FET (any 4 pts.).	
	b)	State the need of multistage amplifier. Draw frequency response of R-C coupled amplifier.	
	c)	Draw circuit diagram of voltage divider biasing list two advantages of voltage divider biasing of BJT.	
	d)	Explain with circuit diagram and input output waveform center trapped full wave rectifier.	
	e)	Differentiate between positive and negative feedback (any 4pts.).	
	f)	Explain RC phase shift oscillator with circuit diagram.	
6.	Att	tempt any four of following:	16
	a)	For Hartley oscillator $C=2$ nF, $L=5.6$ mH, $Lz=56\mu$ H. Calculate frequency of oscillation.	
	b)	Draw circuit diagram of Colpitts Oscillator state its frequency of oscillation equation.	
	c)	Draw and explain the basic block diagram of microprocessor.	
	d)		
	e)		
	f)	Define α and β Derive relation bet, α and β	