GE10 Industrial Electronics

Part 1 Lesson

Power Electronics II

EE306	Electro-mechanical Control	
EE208	Operational Amplifiers	
EE121	Electronics & Power Control	

H026+ H & I units in UEE11

Page 404 to 415 of
http://www.filefactory.com/file/cf9bf8f/n/Video_Lessons.pdf

Three phase power control equipments

H026 Lesson 1-Single &Three phase power control.zip

http://youtu.be/fUOIOe4Tdr4

http://youtu.be/J6Ba7ZPFn90

http://youtu.be/fI-3zOB9V7k

http://www.filefactory.com/file/c39b9ba/n/H026_Lesson_1-Single_Three_phase_power_control.zip

H026 Lesson 2-Solid state switching devices.zip

http://youtu.be/FTqNg42TLLw

http://www.filefactory.com/file/c0b1af2/n/H026_Lesson_2-Solid_state_switching_devices.zip

H026 Lesson 3-Inverter Converter.zip

http://youtu.be/pLbgreYVlsY

http://youtu.be/DfmCM7ZwWFg

http://www.filefactory.com/file/c0b1a59/n/H026_Lesson_3-Inverter_Converter.zip

H026 Lesson 4-Power Diodes.zip

http://youtu.be/64tr-u8R3Ok

http://www.filefactory.com/file/c0b1a8f/n/H026_Lesson_4-Power_Diodes.zip

H026 Lesson 5-AC Motor speed control.zip

http://youtu.be/CcNiMMiGpRI

http://www.filefactory.com/file/c39b967/n/H026_Lesson_5-AC_Motor_speed_control.zip

H026 Lesson 6-Current fed inverter.zip

http://youtu.be/3eJSleyBf7w

http://youtu.be/98GMaawtYME

http://www.filefactory.com/file/c0b1b0d/n/H026_Lesson_6-Current_fed_inverter.zip

The links contain the following lessons

H026 Lesson 1-Single &Three phase power control

H026 Lesson 2-Solid state switching devices

H026 Lesson 3-Inverter Converter

H026 Lesson 4-Power Diodes

H026 Lesson 5-AC Motor speed control

H026 Lesson 6-Current fed inverter

CLASS LESSONS

Power Electronics -H025+H026.zip

http://www.filefactory.com/file/c0b6857/n/Power_Electronics_-H025_H026.zip

Exercise

Do UEENEEH025+H026 Page 225 to 240 of the following link

http://www.filefactory.com/file/c0b7da3/n/Advanced_Diploma_in_Electrical_Engineering_Exercises.zip

Part 2 References

Industrial Electronics

Variable_speed_drive.zip (4.51MB)
http://www.filefactory.com/file/50z4x7yp08zf/n/Variable_speed_drive.zip

H026 3 Ph Power Control Electronics 1.zip (6.47MB)

http://www.filefactory.com/file/2ekk3ci4vpg1/n/H026_3_Ph_Power_Control_Electronics_1.zip

H026 3 Ph Power Control Electronics 2.zip (7.61MB)
http://www.filefactory.com/file/5x71uuaqcj5n/n/H026_3_Ph_Power_Control_Electronics_2.zip

H026 3 Ph Power Control Electronics 3.zip (7.37MB)
http://www.filefactory.com/file/2q23tc6vkmwb/n/H026_3_Ph_Power_Control_Electronics_3.zip

H026 3 Ph Power Control Electronics 4.zip (6.43MB)
http://www.filefactory.com/file/7c2v7p0ivlz7/n/H026_3_Ph_Power_Control_Electronics_4.zip

Part 3 Practicals

Power Electronics Practicals

Practical-H026-Variable drive system.pdf (2.17MB)
http://www.filefactory.com/file/76nbqzxsk58j/n/Practical-H026-Variable_drive_system.pdf

Practical-H026-SCR Drive system.pdf (0.66MB)
http://www.filefactory.com/file/5i75ykijw0a3/n/Practical-H026-SCR_Drive_system.pdf

Practical-H026-3Terminals regulator.pdf (1.63MB)
http://www.filefactory.com/file/4nu4g37s78av/n/Practical-H026-3Terminals_regulator.pdf

Practical-H026-PWM Practical.pdf (0.59MB)
http://www.filefactory.com/file/sw8wzu53sol/n/Practical-H026-PWM_Practical.pdf

Power_Control_Devices.zip (2.74MB)
http://www.filefactory.com/file/punilw98aup/n/Power_Control_Devices.zip

Practical-H026-3 phase rectifier.pdf (2.62MB)
http://www.filefactory.com/file/1e76rao9vmi7/n/Practical-H026-3_phase_rectifier.pdf

ONLINE PRACTICALS

ONLINE PRACTICALS

6.Power Electronics Practicals

Circuit Connection Assessment Number 6-1 Class A B Rectifier

Class A-B Amplifier

http://www.filefactory.com/file/52bujy6mxnvf/n/6-1_pdf

http://www.filefactory.com/file/650fxy60dm2z/n/6_1_doc

http://www.filefactory.com/file/72af0kxilwf3/n/Class_A-B_Amplifier_pdf

Amplifier1_2Practical

Amplifier_current_gain

Circuit Connection Assessment Number_6-2 Inverting Non Inverting Amplifier

Inverting_Non_inverting_amplifier

http://www.filefactory.com/file/3wpu100m0a1h/n/6_1_doc

http://www.filefactory.com/file/6adx40ktscin/n/6-2_pdf

http://www.filefactory.com/file/19ebzs7t83gf/n/Inverting_Non_inverting_amplifier_pdf

Circuit Connection Assessment Number_6-3 SCR Phase control

http://www.filefactory.com/file/17tuqx051l2v/n/6-3_pdf

http://www.filefactory.com/file/5fvgvvka1y07/n/Practical-H025_H026-SCR_Phase_Control_pdf

http://www.filefactory.com/file/5qq2fze0fqah/n/6_3_doc

Power_Control_Devices

Circuit Connection Assessment Number_6-5 Inverting amplifier

http://www.filefactory.com/file/2iojycy6bf6z/n/6-5_pdf

http://www.filefactory.com/file/45732kme9l4f/n/Practical-H025-Inverting_amplifier_pdf

http://www.filefactory.com/file/j0zl13ttmed/n/6_5_doc

Circuit Connection Assessment Number_6-6 Op Amp Comparator

http://www.filefactory.com/file/1o98rt5t7qsx/n/6-6_pdf

http://www.filefactory.com/file/3mu42ptkavap/n/6_6_doc

http://www.filefactory.com/file/4bewi75grfjd/n/Practical-H025-Op-amp_comparator_pdf

Circuit Connection Assessment Number_6-7 Precision half wave rectifier

http://www.filefactory.com/file/21egwl9rthgr/n/6-7_pdf

http://www.filefactory.com/file/406iyxvrc1eb/n/Practical-H025-Precision_half_wave_amplifier_pdf

http://www.filefactory.com/file/5rzsi012bw39/n/6_7_doc

Rectification

Circuit Connection Assessment Number 6-8 Variable frequency drive

http://www.filefactory.com/file/icwoyr7ctpv/n/6_8_doc

http://www.filefactory.com/file/6jsb8h0q6aqt/n/Variable_speed_drive_pdf

http://www.filefactory.com/file/vrdtaixekxn/n/6-8_pdf

Circuit Connection Assessment Number 6-9 Three phase rectifier

http://www.filefactory.com/file/1w2ax659q7ov/n/6_9_doc

http://www.filefactory.com/file/37wu1n67f35j/n/Practical-H026-3_phase_rectifier_pdf

http://www.filefactory.com/file/59hev8r7yoyl/n/6-9_pdf

Rectification

Circuit Connection Assessment Number 6-11 PWM

http://www.filefactory.com/file/47cqe7k6vnt7/n/Practical-H026-PWM_Practical_pdf

http://www.filefactory.com/file/bliscj4bvjr/n/6-11_pdf

http://www.filefactory.com/file/u8uibrn5135/n/6_11_doc

Circuit Connection Assessment Number 6-12 Mini Lab

http://www.filefactory.com/file/42e878f0kjgd/n/H045Day3Practical_pdf

http://www.filefactory.com/file/7hr25f7o5an9/n/6-12_pdf

http://www.filefactory.com/file/5mbfi4xigxf1/n/6_12_doc

Circuit Connection Assessment Number 6-13 Variable drive system

http://www.filefactory.com/file/7godr6j3fr7h/n/Variable_speed_drive_pdf

http://www.filefactory.com/file/3j1en9gle79f/n/6-13_pdf

http://www.filefactory.com/file/45r5k466yosd/n/6_13_doc

Circuit Connection Assessment Number 3-2 Amplifier Gain

http://www.filefactory.com/file/1ufyhhdtxvnd/n/Practical_Semester_1_A_pdf

http://www.filefactory.com/file/2xikhzj6xuzx/n/3-2_pdf

http://www.filefactory.com/file/33ntwrs3o7e3/n/3_2_xls

http://www.filefactory.com/file/57di74j6zk7p/n/3_2_doc

Circuit Connection Assessment Number 3-3 SCR

http://www.filefactory.com/file/1ufyhhdtxvnd/n/Practical_Semester_1_A_pdf

http://www.filefactory.com/file/4l191vthkhdx/n/3_3_doc

http://www.filefactory.com/file/fe3dnguragj/n/3-3_pdf

Circuit Connection Assessment Number 3-6 Three Phase Rectification

http://www.filefactory.com/file/1ufyhhdtxvnd/n/Practical_Semester_1_A_pdf

Rectification

http://www.filefactory.com/file/4h4d1hrfhogv/n/3_6_doc

http://www.filefactory.com/file/9bevf2n3hu1/n/3-6_pdf

Circuit Connection Assessment Number 3-7 Three Terminal Regulator

http://www.filefactory.com/file/1ufyhhdtxvnd/n/Practical_Semester_1_A_pdf

http://www.filefactory.com/file/65maa6x3hkzj/n/3_7_doc

http://www.filefactory.com/file/75znot255nq7/n/3_7_xls

http://www.filefactory.com/file/1u8jqxxi95tp/n/3-7_pdf

ONLINE TESTS

H025

H025_MCQ Practice 1

H025_MCQ Practice 2

H026

H026_MCQ Practice 1

ONLINE TESTS MARKING

H025Test 1---------UEENEEI129A

http://www.filefactory.com/file/2a3bpimaxqx3/n/H025_H045_I006_Online_Test_1_Answer_doc

http://www.filefactory.com/file/6jmhdz91qknz/n/H025_H045_I006_Online_Test_1_Marking_doc

http://www.filefactory.com/file/7j320hlrk6k9/n/H025_H045_I006_Online_Test_1_Question_pdf

http://www.classroomclipboard.com/503511/Home/Test/ab5d528d1ff742f7a3d632a61c210eb0#/InitializeTest.xaml

96T3TX3

H025Test 2---------UEENEEI145A

http://www.filefactory.com/file/19sbxw32dct3/n/H025_H045_I006_Online_Test_2_Answer_doc

http://www.filefactory.com/file/20vzqp9mvm8p/n/H025_H045_I006_Online_Test_2_Question_pdf

http://www.filefactory.com/file/1iskfqv9ywon/n/H025_H045_I006_Online_Test_2_Marking_doc

http://www.classroomclipboard.com/503511/Home/Test/99835b7ab0c348e8a2fd0827394b60d8#/InitializeTest.xaml

HHH2HNC

H026Test 1---------UEENEEI145A

http://www.filefactory.com/file/2ie500zw50yb/n/H026_Online_Test_1_Marking_doc

http://www.filefactory.com/file/5wtb5ooaiizf/n/H026_Online_Test_1_Answer_doc

http://www.filefactory.com/file/fch86cnsrdp/n/H026_Online_Test_1_Question_pdf

http://www.classroomclipboard.com/503511/Home/Test/ee1e8307748441aeab67110c145a7d16#/InitializeTest.xaml

U585X6W

H026Test 2---------UEENEEI145A

http://www.filefactory.com/file/6t4o815fc2pf/n/H026_Online_Test_2_Marking_doc

EE121 Electronics Power Control Devices

Tutoring Lessons

Lesson 1 Lesson 2

Test & Assessment

http://www.filefactory.com/file/fch86cnsrdp/n/H026_Online_Test_1_Question_pdf

http://www.filefactory.com/file/5wtb5ooaiizf/n/H026_Online_Test_1_Answer_doc

Do the tests and send the answer sheet in soft copy by e-mail to **iqytechnicalcollege@gmail.com**

Password- **iqytechnicalcollege**

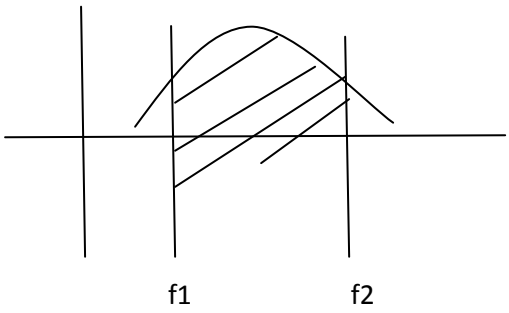
Study EE121 Lessons

Then do the following exercises.

H026 Online Test

Ref473

Gain



The given characteristics curve is

A	High pass filter	B	Low pass filter
C	Band pass filter	D	Band stop filter
	Answer		

Ref478

This equation is used for

$$f_c = \frac{1}{6.28\sqrt{R1\ R2\ C1\ C2}}$$

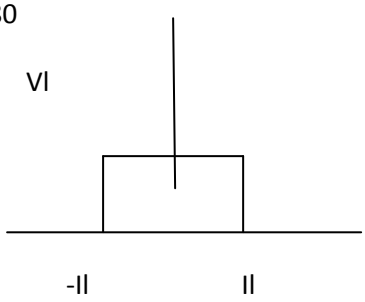
A	First order high pass Butterworth filter	B	First order low pass Butterworth filter
C	Second order low pass Butterworth filter	D	Second order high pass Butterworth filter
	Answer		

Ref479

In 4 quadrant drive system, quadrant 4 is a function of

A	Reversed braking	B	Forward driving
C	Reversed driving	D	Forward braking
	Answer		

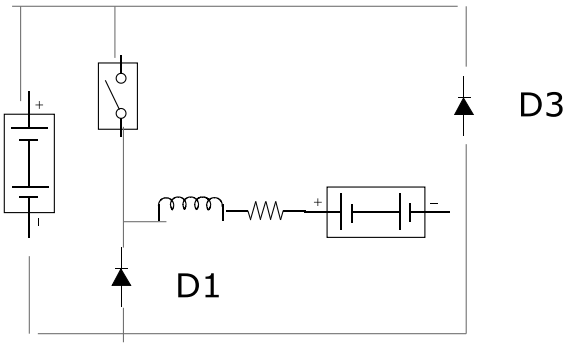
Ref480



This characteristics stands for

A	Class A chopper	B	Class B chopper
C	Class C chopper	D	Class D chopper
	Answer		

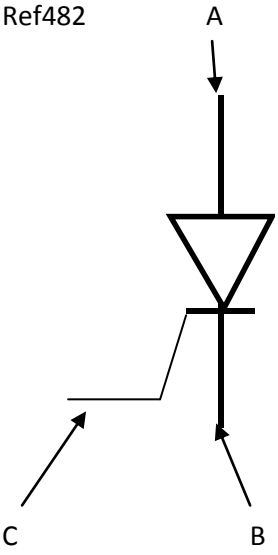
Ref481



This is an equivalent circuit for

A	Class A chopper	B	Class B chopper
C	Class C chopper	D	Class D chopper
	Answer		

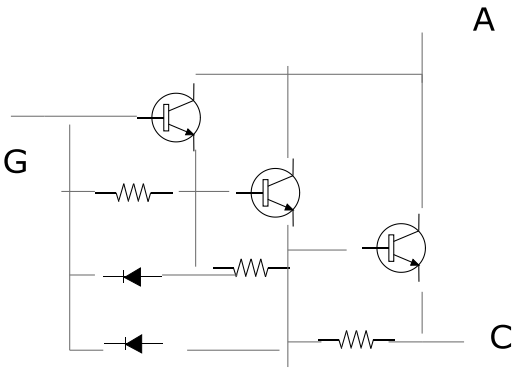
Ref482



in this diagram

A	A-Anode, B= Cathode, C- Gate	B	A-Gate, B= Cathode, C- Anode
C	A-Cathode, B= Anode, C- Gate	D	
	Answer		

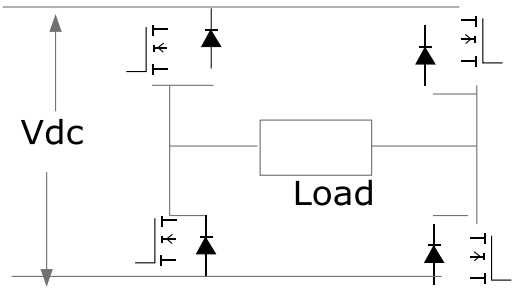
Ref483



This circuit is

A	Single stage Darlington pair transistor	B	Two stage Darlington pair transistor
C	Three stage Darlington pair transistor	D	
	Answer		

Ref484



This circuit makes

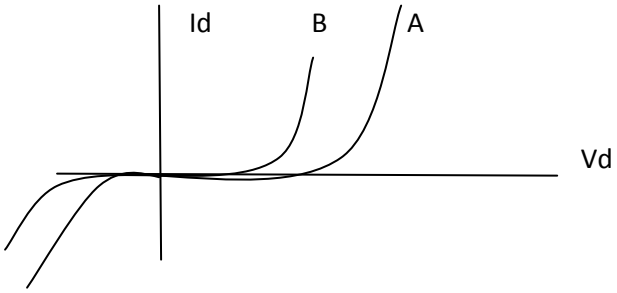
A	DC-DC converter	B	AC-DC converter
C	DC-AC Inverter	D	
	Answer		

Ref485

These converters are used to obtain a variable AC output voltage from a_____ and a single phase converter with a triac .

A	Variable dc source	B	Fixed dc source
C	Variable ac source	D	Fixed ac source
	Answer		

Ref486



Curve A represents _____ & curve B represents _____.

A	Hot carrier diode, PN Junction diode	B	PN Junction diode, Hot carrier diode
C			
	Answer		

Ref487

6 steps inverter can be used for

A	Single phase AC motor	B	DC motor
C	Three phase AC motor		
	Answer		

Ref488

RMS current produced by current source inverter is

A	$I_{1\,rms} = 0.5\ Id$	B	$I_{1\,rms} = 0.78\ Id$
C	$I_{1\,rms} = 0.707\ Id$	D	$I_{1\,rms} = 1.4142\ Id$
	Answer		

EE208 Operational Amplifiers

Tutoring Lessons

EE208 Part 1 EE208 Part 2 EE208 Part 3

Test & Assessment

http://www.filefactory.com/file/2a3bpimaxqx3/n/H025_H045_I006_Online_Test_1_Answer_doc

http://www.filefactory.com/file/7j320hlrk6k9/n/H025_H045_I006_Online_Test_1_Question_pdf

Do the tests and send the answer sheet in soft copy by e-mail to
iqytechnicalcollege@gmail.com

Password- **iqytechnicalcollege**

Study the EE207 File notes & do the exercises

H025+H026+I006 Online Test

Ref451

Differential amplifier can _____ noise signals that are common to both inputs.

A	accept	B	reject
C	rectify	D	reduce
	Answer		

Ref453

A transducer consists of _____ & it's associated circuitry to produce an output signal

A	Rectifier	B	Sensor
C	Regulator	D	Divider
	Answer		

Ref455

The strain gauge is used for

A	Speed measurement	B	Temperature measurement
C	Force measurement	D	Position measurement
	Answer		

Ref457

The water supply to water tank is an example of

A	Open loop control	B	Closed loop control
		D	
	Answer		

Ref459

Reset function is

A	Proportional control	B	Integral control
C	Derivative control	D	PID control
	Answer		

Ref461

In one shot or monostable circuit, delay time equation is

A	T = 1.1 Ra C	B	T = 2 Ra C
C	T = 3 Ra C	D	
	Answer		

Ref463

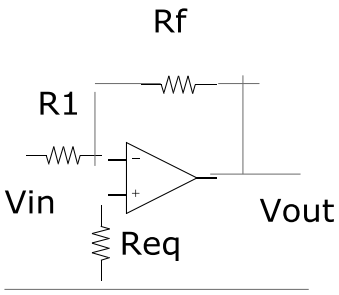
The following equation is used for

Vo = - (Rf/ R1) V1 +(Rf/R2) V2 + (Rf/R3) V3

A	Summing amplifier	B	Differential amplifier
C	Cascade amplifier	D	
	Answer		

Ref465

In the following circuit , Req is



A	Bias voltage offset resistor	B	Bias current offset resistor
C	Feedback resistor	D	
	Answer		

Ref467

Noise gain is

A	(Rf/R1) + 1	B	(R1/Rf)+1
C	R1/Rf	D	Rf/R1
	Answer		

Ref469

The slew rate of 741 Op is 0.5V/ µs. Find maximum frequency for 20V p-p sine wave

A	3KHZ	B	10KHZ
C	7.96 KHZ	D	20 KHZ

	Answer		

Ref471

Phase shift oscillator frequency is

A	f_o = 1/ 15.4 RC	B	f_o = 1/ 30 RC
C	f_o = 1/ 60 RC	D	f_o = 1/ 100 RC
	Answer		

Ref472

The Wien bridge amplifier frequency is

A	f_o = 1/ 3.14 RC	B	f_o = 1/ 6.28RC
C	f_o = 6.28 RC	D	f_o = 1/ RC
	Answer		