"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार"

शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha's

D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 12/08/2021

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their assignment of **'Paper IX: Linear Integrated Circuits'** should be submitted until 17/8/21 at the time of their regular period. So it is mandatory submit assignment.

(Mr. Yadav D. A.)

HEAD,
Department of Electronics,
Vitajirao Kadam Arts Science
& Commerce College
ICHALKARANJI

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper IX: Linear Integrated Circuits

Home Assignment

Day and Date: 17/08/2021 Total Marks: 10

Q.1 Attempt any Two: [10]

a) Explain basic of differential amplifier . Prove that

$V_o = A_d V_d [1 + 1/\rho . V_c/V_d]$

b) Explain DC analysis of dual input balanced output differential amplifier.

c) Explain summing amplifier adder.

d) Explain peak detector .

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Shri Swami Vivekanand Shikshan Sanstha's

D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 18/08/2021

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their Unit Test of **'Paper IX: Linear Integrated Circuits'** is going to conduct on 25/8/21 at the time of their regular period. So it is mandatory to attend and attempt the examination.

(Mr. Yadav D. A.)
HEAD,
Department Of Electronics,
Rajaram Nadam Arts Science
& Commerce College
ICHALKARANJI

B.Sc. Part-III - Semester – V

ELECTRONICS

Paper IX: Linear Integrated Circuit

UNIT TEST

Day and Date: 25/08//2021 Total Marks: 20

Q.1) Attempt any Two: [20]

a) Explain Ad, Ac, CMRR.

b) Explain operation of differential amplifier.

c) Explain triangular wave generator.

d) what is virtual ground concept? Explain antilog amplifier.

Unit Test - 1

Sub - electronics pav

paper NO - IX (LIC)

Roll NO - 7067

14/20

Q1 explain Ad, Ac & CMRR

→

Differential voltage gain (Ad)

If vod is the output voltage due to the differential mode signal vc then the ratio of vod to the vd is called Differential voltage gain (Ad)

i.e $Ad = \frac{Vod}{Vd}$

common mode voltage gain (Ac)

If voc is the output voltage due to the common mode signal Vc then the ratio of voc to the Vc is called common mode voltage gain (AC) i.e $Ac = \frac{Voc}{Vc}$

common mode rejection Ratio (CMRR)

~~If the diff amp~~

the ability of ~~voltage~~ diff amplifier to reject the common mode signal is expressed as common mode rejection ratio (CMRR) the ratio of differential mode voltage gain (Ad) to the common mode voltage gain (AC)

CMRR: $\rho = \frac{Ad}{Ac}$

Eg 1) Ideally common mode signal is 0, then the CMRR is ∞

e) For practicaly Ac is small and Ad is large then the CMRR is very large.

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Department of Electronics

Date: - 01/09/2021

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their Surprise Test of **'Paper IX: Linear Integrated Circuits'** is going to conduct on 08/09/21 at the time of their regular period. So it is mandatory to attend and attempt the examination.

(Mr. Yadav D. A.)

HEAD,

Department Of Electronics,

Rajaram Kadam Arts Science

& Commerce College

Name: **Roll No.** **Marks obtained: /20**

B.Sc. Part-III -Semester – V
ELECTRONICS
Paper IX: Linear Integrated Circuits
Surprise Test

Date: 08 /09/2021 Total Marks: 20

Q. 1) Select correct alternative for the following:

1) LVDT is a
   I) Capacitive transducer II) Resistive transducer
   III) Inductive transducer IV) none of them

2) Differential amplifier is ……..
   I) collector coupled amplifier II) Direct coupled amplifier
   III) RC coupled amplifier IV) None of these

3) One of the advantages of op-amp is
   I) High O/p impedance II) High common mode signal
   III) High I/P impedance IV) All of these

4) ……..IC is comparator IC.
   I) LM331 II) LM311 III) LM301 IV) LF356

5) For op-amp in non-inverting mode, if series resistance is 10k and feedback resistance of 10k, its gain is
   I) 1 II) 2 III) 10 IV) 11

6) An op-amp comparator with Vi > Vref operating in inverting mode has a output of
   I) Vref II) Vi III) +Vsat IV) -Vsat

7) In case of PLL input circuit is .
   I) low pass filter II) Vco
   III) level shifter IV) phase comparator

8) The pin no.2 of IC 555 timer is.
   I) trigger II) thershold III) control IV) +Vcc

9) The first order can not have a
   I) Butterworth response II) Chebyshev response
   III) Maximum flat pass band IV) Maximum flat stop band

10) In normal operation of op-amp 741, terminals used are…….. .
   I) 8 II) 3 III) 9 IV) 7

11) Op-amp is basically……
   I) DC amplifier II) RC coupled amplifier
   III) Differential amplifier IV) None of these

12) All pass filter is also called as……..
   I) Frequency shifter II) Phase shifter
   III) Frequency multiplier IV) Phase multiplier

13) IC that can be used as frequency synthesizer is……..

I) IC 555 II) IC LM 311 III) IC LM 331 IV) IC 565

14) If triangular wave is applied to the input 0f Schmitt Trigger circuit then its output waveform is ……

I) Triangular II) Sine III) Square I V) Cosine

15) V to I is also called as…….

I) Transresistance amplifier II) Buffer

III) Transconductance amplifier IV) Adder

16) The relation between lock range and capture range is……

I) LR=CR II) LR>CR III) LR<CR IV) None of these

17) Offset null pins provided to IC 741 are

I) 2 & 3 II) 1 & 5 III) 4 & 7 IV) 4 & 8

18) A Notch filter is a…….

I) Wide band pass filter II) Narrow band pass filter

III) Narrow band reject filter IV) Wide band reject filter

19) For an IC 741 op-amp, the slew rate is ……

I) 0 II) Infinite III)0.5v/μv IV) 0.5v/μs

20) The CMRR of differential amplifier is……

I) Ad/Ac II) Ac/Ad III) Ad X Ac IV) 0

Answers:-

Q. No.	Answer	Q. No.	Answer
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

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D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 15/09/2021

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(Mr. Yadav D. A.)

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Department Of Electronics,
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ICHALKARANJI

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper IX: Linear Integrated Circuits

Open Book

Day and Date: 22 /09/2021 Total Marks: 20

Q.1) Attempt any two (20)

1) Derive an expression for Ad, Ac &CMRR

2) Draw the block diagram of op-amp & explain each block.

3) Give the classification of filters, explain and order low pass filter.

4) Draw internal circuit diagram of IC 555, give its application as variable duty cycle astable multivibrator

Unit Test - 1

Sub - electronics pav

paper No - IX (LIC)

Roll No - 7067

14/20

Q1 explain Ad, Ac & CMRR

→

Differential voltage gain (Ad)

If vod is the output voltage due to the differntial mode signal vc then the ratio of vod to the vd is called Differntial voltage gain (Ad)

i.e $Ad = \frac{Vod}{Vd}$

common mode voltage gain (Ac)

If voc is the output voltage due to the common mode signal Vc then the ratio of voc to the Vc is called common mode voltage gain (Ac) i.e $Ac = \frac{Voc}{Vc}$

common mode rejection Ratio (CMRR)

the ability of diff amplifeir to reject the common mode signal is expressed as common mode rejection ratio (CMRR) the ratio of differntial mode voltage gain (Ad) to the common mode voltage gain (Ac)

$CMRR = \rho = \frac{Ad}{Ac}$

1) Ideally common mode signal is 0, then the CMRR is ∞

2) For practicaly Ac is small and Ad is large then the CMRR is very large.

putting eqn ① & ⑧ in eqn ⑥

$$Ve = RE\left[\frac{Vc + \frac{Vd}{2} - Ve + Vc - \frac{Vd}{2} - Ve}{Rs + hie}\right](1+hfe)$$

$$Ve = RE(1+hfe)\left(\frac{2Vc - 2Ve}{Rs + hie}\right)$$

$$Ve = 2RE(1+hfe)\left(\frac{Vc - Ve}{Rs + hie}\right) \quad \text{——— (9)}$$

$$Ve = \frac{2RE(1+hfe)Vc - 2RE(1+hfe)Ve}{(Rs + hie)}$$

$$Ve(Rs + hie) = 2RE(1+hfe)Vc - 2RE(1+hfe)Ve$$

$$Ve(Rs + hie) + 2RE(1+hfe)Ve = 2RE(1+hfe)Vc$$

$$Ve[(Rs + hie) + 2RE(1+hfe)] = 2RE(1+hfe)Vc$$

$$Ve = \frac{2RE(1+hfe)Vc}{(Rs + hie) + 2RE(1+hfe)} \quad \text{——— (10)}$$

$$2RE(1+hfe) >> Rs + hie$$

$$Ve = \frac{2RE(1+hfe)Vc}{2RE(1+hfe)}$$

$$\boxed{Ve = Vc} \quad \text{——— (11)}$$

$$Vo = -hfe\, Ib2 \cdot Rc \quad \text{——— (12)}$$

$$Vo = -hfe\left(\frac{Vc - \frac{Vd}{2} - Ve}{Rs + hie}\right) \cdot Rc \quad \text{——— (13)}$$

$$Vo = -hfe \cdot Rc\left(\frac{Vc - \frac{Vd}{2} - Vc}{Rs + hie}\right)$$

$$Vo = \frac{hfe \cdot Rc \cdot Vd}{2(Rs + hie)} \quad \text{——— (14)}$$

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HEAD,

Department Of Electronics,

Rajaram Kadam Arts Science

& Commerce College

ICHALKARANJI

Name: **Roll No.** **Marks obtained: /20**

B.Sc. Part-III -Semester – V
ELECTRONICS
Paper IX: Linear Integrated Circuits
Surprise Test

Date: 08 /09/2021 Total Marks: 20

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Department of Electronics

Date: - 15/09/2021

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HEAD,

Department Of Electronics,
Ittajirao Kadam Arts Science
& Commerce College
ICHALKARANJI

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper IX: Linear Integrated Circuits

Open Book

Day and Date: 22 /09/2021 Total Marks: 20

Q.1) Attempt any two (20)

1) Derive an expression for Ad, Ac &CMRR

2) Draw the block diagram of op-amp & explain each block.

3) Give the classification of filters, explain and order low pass filter.

4) Draw internal circuit diagram of IC 555, give its application as variable duty cycle astable multivibrator

$$V_1 = \frac{VR}{2}\left[\frac{2(R+\Delta R}{2R+\Delta R}\right] \quad \text{——①}$$

Similarly

$$V_2 = \frac{R}{2R}\,VR = \frac{VR}{2} \quad \text{——②}$$

form eqn ① & ② we have

$$(V_1 - V_2) = \frac{VR}{2}\left[\frac{2(R+\Delta R)}{2R+\Delta R} - 1\right]$$

$$= \frac{VR}{2}\left[\frac{\Delta R}{2R+\Delta R}\right]$$

If $R >> \Delta R'$ then

$$(V_1 - V_2) = \frac{\Delta R}{4R}\,VR$$

If $RF = R'F$ & $R_1 = R'_1$ then the o/p voltage of above ckt can be obtained by using eqn.

$$V_o = \frac{RF}{R_1}(V_1 - V_2)$$

$$V_o = \frac{RF}{R_1} \cdot \frac{\Delta R}{4R}\,VR$$

Here common mode votage on each input teermin al is to be accureately substracted If R_1 and R resistance & RF and R'F resistors aee closely matched. and the ckt has a high CMRR

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D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 18/08/2021

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their Unit Test of **'Paper X: Communication Systems-I'** is going to conduct on 25/08/21 at the time of their regular period. So it is mandatory to attend and attempt the examination.

(Mr. Yadav D. A.)

HEAD,

Department Of Electronics,

Shrimati Kadam Arts Science

& Commerce College

ICHALKARANJI

B.Sc. Part-II -Semester – III

ELECTRONICS

Paper X: Communication Systems-I

UNIT TEST

Day and Date: 25/08/2021 Total Marks: 20

Q.1 Attempt any Two: [20]

a) With neat block diagram explain electronic communication system.

b) What is amplitude modulation? Obtain mathematical equation for AM wave.

c) With block diagram explain superheterodyne AM receiver.

d) With block diagram explain SSB generation using Phase shift method.

B.Sc. Part-II -Semester – III

ELECTRONICS

Paper X: Communication Systems-I

UNIT TEST

Day and Date: 25/08/2021 Total Marks: 20

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a) With neat block diagram explain electronic communication system.

b) What is amplitude modulation? Obtain mathematical equation for AM wave.

c) With block diagram explain superheterodyne AM receiver.

d) With block diagram explain SSB generation using Phase shift method.

5] Reciever

Reciever has to pick up the desired signal from the channel & pass it to the the destination There are different types of recievers in communication system. The type of reciever depends upon number of factors such as type of modulation system.

Q2 What is amplitude modulation? obtain mathematical eqn for AM reciever.

→ The process of amplitude modulation consist of varying the peak amplitude of sinusoidal carrier wave in proportion to the amplitude of modulating signal.

Assume that the modulating signal & carrier signal are represented by

$e_m = E_m \sin \omega_m t$

$e_c = E_c \sin \omega_c t$ resp

where ω_m & ω_c are the velocities of modulating & carrier signals resp

The process of amplitude modulation increases the peak amplitude of the carrier so that for modulated wave amplitude becomes.

$E_{mod} = E_c + E_m \sin \omega_m t$ —— (1)

the eqn for modulated wave can be written as

$E_{mod} = E_{mod} \sin \omega_c t$ —— (2)

Substitute the value E_{mod} from eqn (1) & (2) we have

$e_{mod} = (E_c + E_m \sin \omega_m t) \sin \omega_c t$ —— (3)

let us consider the trignometric relⁿ

$\cos(A-B) - \cos(A+B) = (\cos A \cdot \cos B + \sin A \cdot \sin B) - [(\cos A \cdot \cos B - \sin A \cdot \sin B)]$

$\cos(A-B) - \cos(A+B) = 2 \sin A \cdot \sin B$

$\therefore \sin A \cdot \sin B = \cos(A-B)/2 - \cos(A+B)/2$

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D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 01/09/2021

Notice

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(Mr. Yadav D. A.)

HEAD,
Department Of Electronics,
Kilaj Vadam Arts Science
& Commerce College

Name: **Roll No.** **Marks obtained: /20**

B.Sc. Part-III -Semester – V
ELECTRONICS
Paper X: Communication Systems-I
Surprise Test

Day and Date: 08/09/2021 Total Marks: 20

Q. 1) Select correct alternative for the following:

1) Which of the following antenna is treated as reference antenna?
a) Half wave dipole b) Isotropic radiator c) Yagi d) V-antenna

2) Which one of the following term does not apply to Yagi antenna?
a) Good bandwidth b) Parasitic elements c) Folded dipole d) High gain

3) The Yagi antenna is used for
a) TV reception b) Walky-Talky c) Radio d) Communication

4) Which one of the following antenna is used for radio transmission?
a) Half wave dipole b) Marconi c) Yagi d) Parabolic dish antennas

5) For Satellite communication which one of the following is preferred?
a) Parabolic dish antenna b) Half wave dipole c)Yagi d) Ferrite loop type

6) Which one of the following antenna is preferred in radio receiver?
a) Ferrite road loop type b) Yagi c) dish antenna d) none of these

7) State whether the following statements about the antenna are True or False.
i. It converts electrical power into electromagnetic waves and vice versa.
ii. It can be used either as a transmitting antenna or a receiving antenna.
iii. The Same antenna can not be used for both transmission and reception.
A) i-True, ii-True, iii-True B) i-True, ii-False, iii-True
C) i-False, ii-True, iii-True D) i-True, ii-True, iii-False

8) The … antenna consists of two straight collinear conductors of equal length, separated by small gap.
A) half-wave dipole B) horizontal-quarter wave dipole
C) vertical-quarter wave dipole D) folded dipole

9) A … antenna is the type commonly used for automobile radios and portable radios.
A) half-wave dipole B) horizontal-quarter wave dipole
C) vertical-quarter wave dipole D) folded dipole

10) A … has a uniform or omnidirectional radiation pattern in one dimension.
A) half-wave dipole B) horizontal-quarter wave dipole
C) vertical-quarter wave dipole D) folded dipole

11) … antenna is used in terrestrial microwave and satellite applications.
A) Isotropic B) Marconi C) Parabolic reflective D) Folded dipole

12) An … antenna is a point in space that radiates power in all directions equally.
A)Isotropic B)Marconi C)Parabolic reflective D) Folded dipole

13) … occurs when an incoming signal hits an object whose size in the order of the wavelength of the signal or less.
A) Scattering B) Diffraction C) Fading D) none of these

14) … occurs at the edge of an impenetrable body that is large compared to the wavelength of radio wave.
A) Scattering B) Diffraction C) Fading D) Reflection

15) … occurs when the signal encounters a surface that is large relative to the wavelength of the signal.
A) Scattering B) Diffraction C) Fading D) Reflection

16) A device that converts high frequency current into electromagnetic wave.
A. Antenna B. Loudspeaker C. Microphone D. Transducer

17) Which is a non-resonant antenna?
A. Rhombic antenna B. Folded dipole C. End-fire array D. Yagi-Uda antenna

18) _____ is an antenna with a number of half-wave antenna on it.
A. Antenna array B.Tower C. Omni-directional D. Rhombic

19) An antenna with very high gain and very narrow beam width.
A.Helical antenna B.Discone antenna C.Horn antenna D.Parabolic dish antenna

20) _____ is the horizontal pointing angle of an antenna
A. Azimuth B. Angle of elevation C. Right angle D. Beamwidth

Answers:-

Q. No.	Answer	Q. No.	Answer
1		11	
2		12	
3		13	
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& Commerce College
ICHALKARANJI

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper X: Communication Systems-I

Open Book

Day and Date: 22/09/2021 Total Marks: 20

Q.1) Attempt any two (20)

1) What is Noise in communication? Explain Internal Noise in detail.
2) Which are different communication systems?
3) Give the concepts of SSB, DSB and VSB,

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper X: Communication Systems-I

Open Book

Day and Date: 22/09/2021 Total Marks: 20

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1) What is Noise in communication? Explain Internal Noise in detail.
2) Which are different communication systems?
3) Give the concepts of SSB, DSB and VSB,

(vi) The dipole, generally a metallic rod acts as active element as external feeding is provided to it using transmission lines.

(vii) While reflector and directors are parasitic elements.

(viii) Parasitic elements and metallic rod placed parallel in the line of sight orientation w.r.t driven element.

(ix) However, when the dipole is excited using a transmission line then current that flows through driven element induce voltages in parasitic element.

(x) All these elements are mounted on a centre rod, that acts as horizontal support.

(xi) The reflector is present at end of metallic rod and has length around 5% greater than length of driven element.

(xii) While directors are almost 5% shorter than driven element (i.e $\lambda/2$ at resonant frequency) and placed at other side of dipole. And used to provide maximum directivity to antenna.

(xiii) So, far 3 elements aerial, length of elements can be considered as:

Length of driven element $= \frac{475}{F_{MHz}}$ feets.

Length of reflector $= \frac{500}{F_{MHz}}$ feets.

Length of director $= \frac{455}{F_{MHz}}$ feets.

② Write a note on Helical Antenna.

⇒ Helical Antenna:

① Helical antenna is a type of antenna that designed using conducting wire and constructed in shape of helics.

② These antennas are consider as one of the simplest antenna widely used in VHF and UHF.

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Department of Electronics

Date: - 12/08/2021

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their assignment of **'Paper XI: 8051 Microcontroller Interfacing and Embedded C'** should be submitted until 18/08/21 at the time of their regular period. So it is mandatory submit assignment.

(Mr. Yadav D. A.)

HEAD,

Department Of Electronics,
attajirao Kadam Arts Science
& Commerce College
ICHALKARANJI

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper XI: 8051 Microcontroller Interfacing and Embedded C

Home Assignment

Day and Date: 18 /08/2021 Total Marks: 10

Q.1 Explain circuit diagram and proper program, explain traffic control system using 8051?

(5Marks)

Q.2 Explain speed control of DC motor by using PWM technique?

(5Marks)

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper XI: 8051 Microcontroller Interfacing and Embedded C

Home Assignment

Day and Date: 18 /08/2021 Total Marks: 10

Q.1 Explain circuit diagram and proper program, explain traffic control system using 8051?

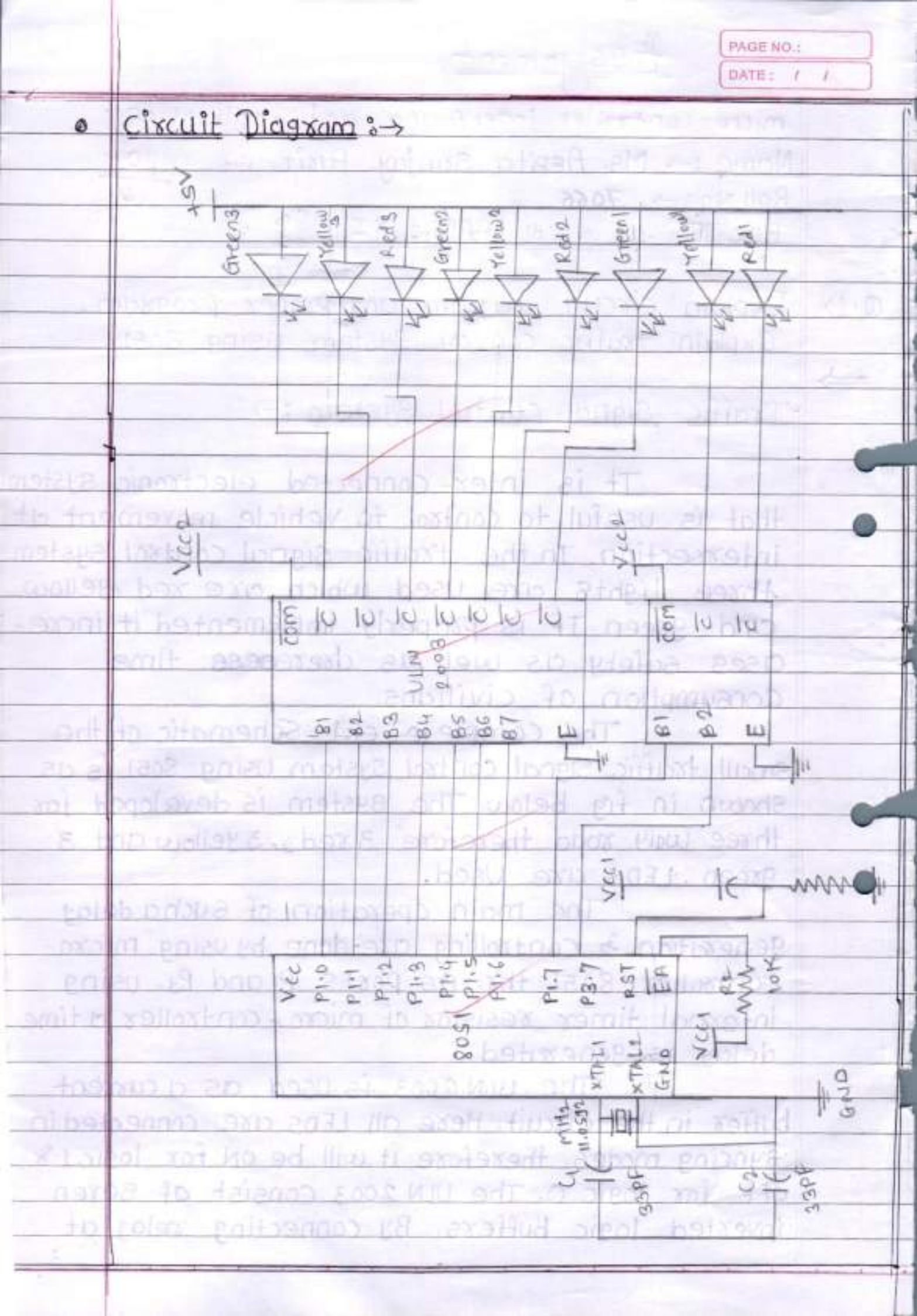
(5Marks)

Q.2 Explain speed control of DC motor by using PWM technique?

(5Marks)

PAGE NO.:
DATE: / /

Circuit Diagram :→



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(Mr. Yadav D. A.)

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B.Sc. Part-III -Semester – V

ELECTRONICS

Paper XI: 8051 Microcontroller Interfacing and Embedded C

UNIT TEST

Day and Date: 26/08/2021 Total Marks: 20

Q.1 Attempt any Two: [20]

1) What is the advantage of serial communication over parallel communication? Write an 8051 program to transfer serially the letter "Z" continuously at a 1200 baud rate.
2) Write an 8051 program to transfer serially the message "The earth is but one country" continuously at a 4800 baud rate.
3) A door sensor is connected to P1.1 pin and a buzzer is connected to P1.7. Write an 8051 C program to monitor the door sensor and when it opens, sound the buzzer.
4) What is the function of TMOD register? Write a C-program to toggle all the bits of P2 continuously every 500 ms using Timer 1 in mode 1 with XTAL = 11.0592 MHz.

Name: Gourabh A. Gavarai

Roll No. 7065

paper No - XI 8051 microcontroller interfacing and Embedded C.

Unit test - 1

Q.2 write on 8051 program to transfer serially the message "the earth is but one country." continously at a 4800 boud rate

→

```
SLU  BIT P1.2
     ORG 0FF      ; Starting position
MAIN
     MOV TMOD, #20H
     MOV TH1, #-6  ;4800 boudrate (default)
     MOV SCON, #50H
     SETB TR1
     SETB SL4      ; make slu an input
     JNB SL2, SLOUSP ; cheak slu status
                     make slu an input
S1.  MOV A, PCON1  ; cheak slw starts read PCON
     SETB ACC7     ; set MOD high for 9600
     MOV PCON A    ; write PCON
     SJMP OVER     ; send message

SLOUSP.
     MOV A PCON1   ; read PCON
     SETB ACC 7    ; set SMOD bw for 4800
     MOV PCON A    ; write PCON
OVER MOV DPTR #mess1 ; load address to message
FN :  CLR A
     MOV C A @ A + DPTR, read value
     JZ S1         ; cheak for end of line
     ACALL SEND.com ; send value to serial port
     INC DPTR      ; move to next value
     SJMP FN       ; repeat
```

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Notice

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(Mr. Yadav D. A.)

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Name: **Roll No.** **Marks obtained:**

B.Sc. Part-III -Semester – V
ELECTRONICS
Paper XI: 8051 Microcontroller Interfacing and Embedded C
Surprise Test

Day and Date: 09 /09/2021 Total Marks: 20

Q. 1) Select correct alternative for the following:

1) 8051 has built in.....
   I) USART II) **UART**
   III) Both USART & UART IV) None of these
2) Data framing is done in .....type of data transfer method.
   I) **Asynchronous** II) synchronous
   III) both of these IV) none of these
3) By default UART divides machine cycle frequency by.....to set baud rate.
   I) 4 II) 8 III) 16 IV) **32**
4) To double the baud rate..... Register is used.
   I) SBUF II) SCON III) **PCON** IV) PSW
5) When 8051 finishes the transfer of 8-bit character it sets..... flag to indicate that it is ready to transfer another byte.
   I) RI II) **TI** III) REN IV) TB8
6) When 8051 finishes the receiving of 8-bit character it sets..... flag to indicate that byte is available.
   I) **RI** II) TI III) REN IV) TB8
7) ..... pins are available for transferring and receiving the data.
   I) VCC & VDD II) T1 & T0
   III) **RXD & TXD** IV) XTAL1 & XTAL2
8)..... register is use to hold data to be received.
   I) SCON II) PCON III) **SBUF** IV) ACC
9) With XTAL=11.0592 MHz, the TH1 value needed to have 1200 baud rate is .....
   I) FD II) FA III) C4 IV) **E8**
10) ..... bit of PCON is used to set baud rate.
   I) GF1 II) GF0 III) IDL IV) **SMOD**
11) Data range for signed char data type is ----------
   I) 0 to 255 II) **-128 to +127**
   III) 0 to 65535 IV) -32768 to +32767
12) Data range for un-signed Character data type is ----------
   I) **0 to 255** II) -128 to +127

III) 0 to 65535 IV) -32768 to +32767

13) The time delay depends on ---------

I) Crystal frequency II) compiler choice

III) number of machine cycles IV) **all of these**

14) Bit-wise EXOR operator is --------

I) & II) | III) ^ IV) ~

15) Initially P1=0x9A, to make P1 = 0x09, the ------instruction has to be used.

I) P1 = 0x9A<<4 II) **P1 = 0x9A>>4**

III) P1 = 0x9A>>1 IV) P1 = 0x9A>>3

16) ASCII code for number 4 is-------

I) 04 II) 40 III) 44 IV) **34**

17) Unpacked BCD for 0x59 is--------

I) **0000 0101 and 0000 1001** II) 0000 0101 and 1001 0000

III) 0101 0000 and 1001 0000 IV) 1001 0101

18) To generate time delay of 50 ms, the hex count to be loaded in Timer 0 in mode 1 is----------

I) 5BCD II) 3BFD III) **4BFD** IV) 6BFD

19) Data range for un-signed integer data type is ----------

I) 0 to 255 II) -128 to +127

III) **0 to 65535** IV) -32768 to +32767

20) ----------data type is used to access bit addressable memory bit.

I) sfr II) char III) sbit IV) **bit**

Answers:-

Q. No.	Answer	Q. No.	Answer
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

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Department of Electronics

Date: - 15/09/2021

Notice

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Students of B.Sc.III Electronics class hereby informed that, their Open Book Test of **'Paper XI: 8051 Microcontroller Interfacing and Embedded C'** is going to conduct on 23/09/21 at the time of their regular period. So it is mandatory to attend and attempt the examination.

(Mr. Yadav D. A.)

HEAD,
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B.Sc. Part-III -Semester – V

ELECTRONICS

Paper XI: 8051 Microcontroller Interfacing and Embedded C

Open Book Test

Day and Date: 23/09/2021 Total Marks: 20

Q.1 With circuit diagram and proper program explain how ADC 0804 is interfaced with 8051?

(5Marks)

Q.2 Explain how seven segment display in multiplex mode is interfaced with 8051?

(5Marks)

Q.3 Explain circuit diagram and proper program, explain gate emulator system using 8051?

(5Marks)

Q.4 Explain circuit diagram and proper program, explain temperature measurement system using 8051?

(5Marks)

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Department of Electronics

Date: - 12/08/2021

Notice

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Students of B.Sc.III Electronics class hereby informed that, their assignment of **'Paper XII: Power Electronics and Devices'** should be submitted until 18/08/21 at the time of their regular period. So it is mandatory submit assignment.

(Mr. Yadav D. A.)

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Department Of Electronics,
Rajarambapu Kadam Arts Science
& Commerce College
ICHALKARANJI

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper XII: Power Electronics and Devices

Home Assignment

Day and Date: 18/08/2021 Total Marks: 10

Q.1 Attempt any Two: [10]

a) With neat diagram explain Full converter.

b) With neat diagram explain half converter.

c) With neat diagram explain semi converter.

d) Evaluate the expression for average dc voltage for full converter.

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper XI: 8051 Microcontroller Interfacing and Embedded C

Open Book Test

Day and Date: 23/09/2021 Total Marks: 20

Q.1 With circuit diagram and proper program explain how ADC 0804 is interfaced with 8051?

(5Marks)

Q.2 Explain how seven segment display in multiplex mode is interfaced with 8051?

(5Marks)

Q.3 Explain circuit diagram and proper program, explain gate emulator system using 8051?

(5Marks)

Q.4 Explain circuit diagram and proper program, explain temperature measurement system using 8051?

(5Marks)

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Department of Electronics

Date: - 18/08/2021

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(Mr. Yadav D. A.)

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B.Sc. Part-III -Semester – III

ELECTRONICS

Paper XII: Power Electronics and Devices

UNIT TEST

Day and Date: 26/08/2021 Total Marks: 20

Q. 1) Select correct alternative for the following : [20]

1. Thyristor is a _____ device.
   a) Unidirectional b) bidirectional c) directional d) None of the above
2. The line voltages are phase shifted from each other by_____.
   a) 60^0 b)120^0 c) 90^0 d) 180^0
3. The phase voltages are phase shifted from each other by_____.
   a) 60^0 b)120^0 c) 90^0 d) 180^0
4. Average dc voltage of three phase half wave rectifier is _____.
   a) 0.8723 V_m b) 0.9554 V_m c) 0.6428 V_m d) None of the above
5. Average dc voltage of three phase Full wave rectifier is _____.
   a) 0.8723 V_m b) 0.9554 V_m c) 0.6428 V_m d) None of the above
6. _____ number of diodes are used in three phase bridge rectifier.
   a) 4 b) 6 c) 2 d) 8
7. In SMPS, series pass transistor act as _____.
   a) Amplifier b) switch c) buffer d) None of the above
8. In ON line UPS, UPS static switch normally ____.
   a) ON b) OFF c) both a) & b) d) None of the above
9. **Electronic ballast** is a device that converts power frequency to very ____ frequency
   a) High b) low c) medium d) None of the above
10. For induction heating ____ frequency supply is required.
    a) High b) low c) medium d) None of the above

Answers:-

Q. No.	1	2	3	4	5	6	7	8	9	10
Answer										

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Department of Electronics

Date: - 01/09/2021

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(Mr. Yadav D. A.)

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Name: **Roll No.** **Marks obtained:** **/20**

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper XII: Power Electronics and Devices

Surprise Test

Day and Date: 09 /09/2021 Total Marks: 20

Q. 1) Select correct alternative for the following:

1. The Power diode consists of ____ semiconductor layers.
   a) One b) Two c) Three d) None of the above
2. Due to conductivity modulation, on-state losses in the diode are _____.
   a) Reduced b) increased c) same d) none of the above
3. Reverse recovery time depends on _____.
   a) Junction temperature b) Rate of fall of forward current
   c) forward current d) all of the above
4. Diodes are connected in _____ to increase the reverse blocking capabilities.
   a) Parallel b) series c) Anti-parallel d) None of the above
5. Diodes are connected in _____ to meet the higher current requirements.
   a) Parallel b) series c) Anti-parallel d) None of the above
6. _____ is the minimum anode current required to maintain the thyristor in the on-state.
   a) Latching current b) holding current c) reverse current d) None of the above
7. In two transistor analogy of thyristor consist of ____ & _____ type of transistors.
   a) NPN, NPN b) PNP, PNP c) NPN, PNP d) None of the above
8. The snubber circuit is a _____combination of resistor 'R' and capacitor 'C'.
   a) Parallel b) series c) Anti-parallel d) None of the above
9. In Triac, two thyristors are connected in _____ combination.
   a) Parallel b) series c) Anti-parallel d) None of the above
10. Triac is a _____ device.
    a) Unidirectional b) bidirectional c) directional d) None of the above

Answers:-

Q. No.	1	2	3	4	5	6	7	8	9	10
Answer										

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Date: - 15/09/2021

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(Mr. Yadav D. A.)

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B.Sc. Part-III -Semester – V

ELECTRONICS

Paper XII: Power Electronics and Devices

Open Book Test

Day and Date: 23/09/2021 Total Marks: 20

Q.1 Attempt any Two: [20]

a) Explain Thyristor turn on method.

b) Explain series connected and parallel connected diode.

c) Explain structure and operation of power transistor.

d) Explain diodes with RC load.

B.Sc. Part-III -Semester – V

ELECTRONICS

Paper XII: Power Electronics and Devices

Open Book Test

Day and Date: 23/09/2021 Total Marks: 20

Q.1 Attempt any Two: [20]

a) Explain Thyristor turn on method.

b) Explain series connected and parallel connected diode.

c) Explain structure and operation of power transistor.

d) Explain diodes with RC load.

4. dV/dt method -

i] When the device is forward biased, J1 & J3 are forward biased, J2 reverse biased

ii] Junction J2 behaves as a capacitor, due to the charges existing across the junction.

iii] If voltages across the device is V, the charge by Q and capacitance C then,

$$i_c = dQ/dt$$

$$i_c = d(CV)/dt \quad \cdots \quad (Q = CV)$$

$$i_c = C \cdot dV/dt + V \cdot dV/dt$$

as

$$dC/dt = 0$$

$$i_c = C \cdot dV/dt$$

iv) Therefore, when the rate of change of V_{tg} across the device become large, the device may turn ON, even if the voltage across the device is small.

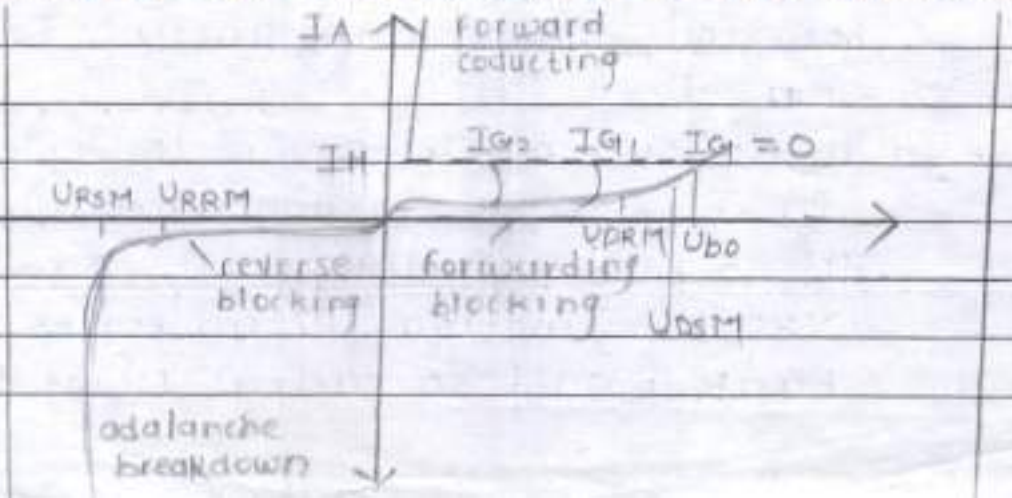
5. Gate Current -

i] This is most widely used Thyristor triggering method.

ii] When the anode terminal is positive with respect to Cathode, Junction J1 and J3 is forward biased and Junction J2 reverse biased

iii] No current flows due to depletion region in J2

iv] As the applied voltage increseas, the carrier injection increseas, therefor the V_{tg} at which forward break-over occurs i.e V_{BO} decreseas.



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Department of Electronics

Date: - 20/12/2021

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their assignment of **'Paper XIII- Industrial Process Control &PLC Programming '** should be submitted until 27/12/2021at the time of their regular period. So it is mandatory submit assignment.

(Mr. Yadav D. A.)

HEAD,
Department Of Electronics,
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& Commerce College
ICHALKARANJI

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XIII- Industrial Process Control &PLC Programming

Home Assignment

Day and Date: 27/12/2021 Total Marks: 10

Q.1 Attempt following questions: [10]

1) Explain zero crossing detectors? Explain non inverting and inverting amplifier.

2) Explain J-K Flip Flop.

NAME - Anushka Sutar
Roll No - 7322

DATE / /

PAPER 13 - Electronics Instrumentation - II and Robotics.

Home Assignment

10/10

Q.1 Explain Analog and Digital meters.

→ The moving coil meter is an analog indicator with a pointer moving across a scale the basic instrument moment is a DC micro - ammeter with shunts, multipliers & rectifiers being used to convert it to other rang of direct current, direct voltage & alternating voltage with alternating current & voltages the instrument is restricted to between about 50 Hz & 10KHz.

The accurancy of such a meter depends upon a no. of factors, among which is temprature the preessure neaby of magnetic fields or materials, the way the meter is manuted, bearing frictions in occur acy in scale making during manufactures, etc.

In addition there are errors involved in reading the meters.

e.g.

Parallax error - When the position of the pointer against the scale is read from an angle other than directivity at right.

Q2 Which are types of a robot.

The industrial robot can be browtly divided into two main groups as follows -

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D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 01/01/2022

Notice

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Students of B.Sc.III Electronics class hereby informed that, their Unit Test of '**Paper XIII- Industrial Process Control &PLC Programming** ' is going to conduct on 05/01/22 at the time of their regular period. So it is mandatory to attend and attempt the examination.

(Mr. Yadav D. A.)

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B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XIII- Industrial Process Control &PLC Programming

UNIT TEST

Day and Date: 5/1/2022 Total-Marks: 20

Q.1) Attempt following questions: [10]

1) Explain block diagram of PLC.

2) Explain T Flip flop.

Q.2) Explain proportional controller, integral controller and derivative controller using op-amp [10]

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XIII- Industrial Process Control &PLC Programming

UNIT TEST

Day and Date: 5/1/2022 Total-Marks: 20

Q.1) Attempt following questions: [10]

1) Explain block diagram of PLC.

2) Explain T Flip flop.

Q.2) Explain proportional controller, integral controller and derivative controller using op-amp [10]

Frequency which one form a constant stream of link passes along a tube and is pulsed to form the drops by piezoelectric crystal which vibrat at a frequency of about 100KHz. Another form uses a small heater in the print head with vaporised ink in capillary tube, so producing gas bubbles which push out drops of ink is given a charge as a result of passing through a charging as a result of passing through a charge electrode and the charged drops are deflected by passing betn plates betn which an electric field is maintained; in another version a verticle stuck of nozzle is used and each jet is just switched on or off on demand. The fineness of the drops is such that prints can be produced with more then 600 dots per inch.

Qe Which are components of robots - write a note on manipulator arm.

→ The components of robots a followse:-

1] Base
2] Manipulator arm
3] End - effectors
4) Actuators and Transmission.

Manipulator arm.

1] The most important mechanical configration of the robot is the manipulator arm.
2] There are several designas of the arm to facillated moment with in the work with

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B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XIII- Industrial Process Control &PLC Programming

SURPRISE TEST

Day and Date: 29/1/2022 Total-Marks: 20

Q.1) Attempt following questions: [10]

1) Difference between Open loop control system and feedback control system

2) What is control system? Explain closed loop control system.

Q.2) Explain open loop control system in brief. [10]

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XIII- Industrial Process Control &PLC Programming

SURPRISE TEST

Day and Date: 29/1/2022 Total-Marks: 20

Q.1) Attempt following questions: [10]

1) Difference between Open loop control system and feedback control system

2) What is control system? Explain closed loop control system.

Q.2) Explain open loop control system in brief. [10]

while more specialist instrument can respond to GHz. Doubble beam oscilloscope also enable to ~~sp~~ seprate traces to be observed symultenisously on screen by using single beam by using time division.

Storage oscilloscope enable the strees to ramin on the screen after the I/P signal has increased. digital storage Oscilloscope digitalize the i/g signal & store the digital signal in a memory CRO is a very fast x-r potter shows i/p signal versus another signal or v/s time. The CRO is used to anulize the waveform trasient phenomenon and other time varrying quantities.

Q.2] Explain Engine managment system with block diagram.

→ 1] Engine managment system is used in many of the modern cars This system uses many electronic control system by using microcontroller

2] The objective of the system is not that engine is operated at is optimum setting.

3] The system consist of many sensors for observaing, vechicle speed, engine temp, oil pressure, air Flow

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B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XIII- Industrial Process Control &PLC Programming

Open Book Test

Day and Date: 19/2/2022 Total-Marks: 20

Attempt following questions: [20]

1) What is adaptive control system
2) Explain Relay in brief.
3) Explain modulator PLC and redundant PLC.
4) Explain proportional controller and PID controller.

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XIII- Industrial Process Control &PLC Programming

Open Book Test

Day and Date: 19/2/2022 Total-Marks: 20

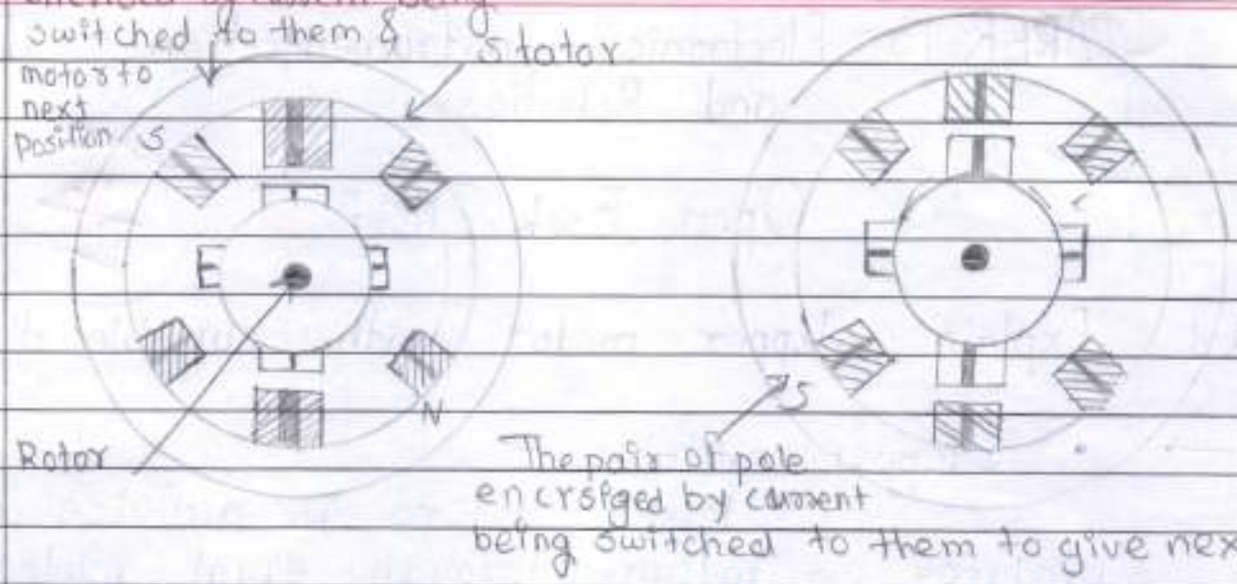
Attempt following questions: [20]

1) What is adaptive control system
2) Explain Relay in brief.
3) Explain modulator PLC and redundant PLC.
4) Explain proportional controller and PID controller.

DATE / /

The pair of poles ~~energised by current being~~ switched to them & motor to next position

Stator



The pair of pole energised by current being switched to them to give next

2 Permanant Magnet Stepper motor

Fig shows the basic form of permamant magnet motor. The motor has a stator with four poles. Each pole is wound with a field windding through switches. The passed ~~through~~ ~~the pair~~ coils on opposite pairs of poles source to the winding through switches. The rotor is parmanent magnet. When current is passed through the pair of stator poles, the rotor will move to line up with it.

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Students of B.Sc.III Electronics class hereby informed that, their assignment of **'Paper XIV- Communication System-II'** should be submitted until 28/12/21 at the time of their regular period. So it is mandatory submit assignment.

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B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XIV: Communication System II

Home Assignment

Day and Date: 28/12/2021 Total Marks: 10

Q.1 Attempt following questions: [10]

1) Explain function of telephone exchange. Give classification of telephone exchange.

2) Explain optical fiber communication system with block diagram.

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XIV: Communication System II

Home Assignment

Day and Date: 28/12/2021 Total Marks: 10

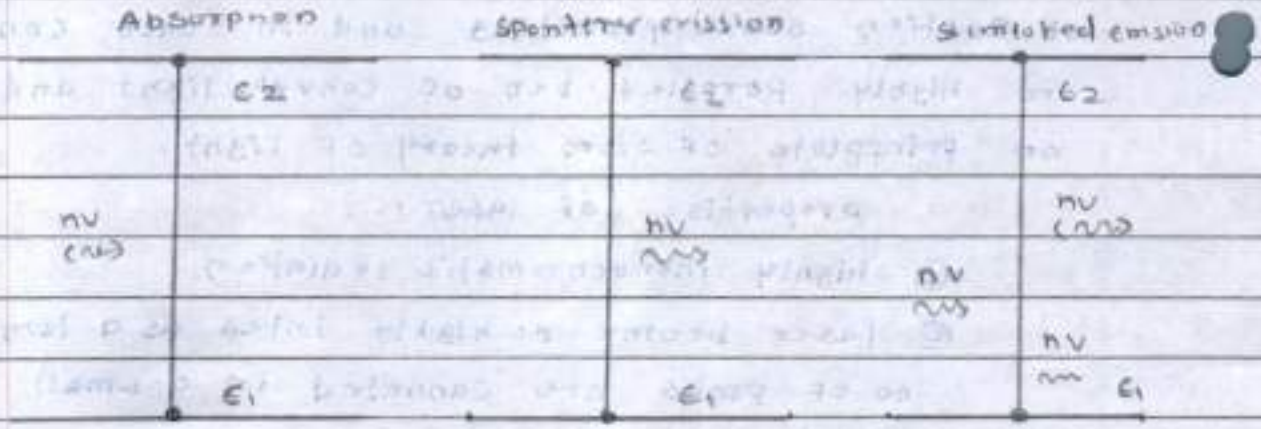
Q.1 Attempt following questions: [10]

1) Explain function of telephone exchange. Give classification of telephone exchange.

2) Explain optical fiber communication system with block diagram.

⑤ The excited atom of metastble state is stimulated to emitting a photon of the same energy as that of the stimulatione photon.

⑥ Hence light amplifcation occurs due to multicotion of photon all of have same freqn direction and phase.



E_1 = lower energy state

E_2 = Higher energy state

2. Explain advantages of optical fiber.

1. wide bandwidth
2. low losses
3. Immune to cross talk
4. Interfrnce immune.
5. light weight.
6. Small size.
7. more strength.

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Students of B.Sc.III Electronics class hereby informed that, their Unit Test of **'XIV- Communication System-II'** is going to conduct on 05/01/22 at the time of their regular period. So it is mandatory to attend and attempt the examination.

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B.Sc. Part-III -Semester – VI
ELECTRONICS
Paper XIV- Communication System-II
Unit TEST

Day and Date: 5/1/2022 Total-Marks: 20

Q.1) Attempt following questions: [10]

1) Explain pulse and DTMF dialing.

Q. 2) Attempt following question: [10]

1) Explain block diagram of modem using FSK.
2) Explain Bluetooth, WiFi, 3G.

B.Sc. Part-III -Semester – VI
ELECTRONICS
Paper XIV- Communication System-II
Unit TEST

Day and Date: 22/01/2020 Total-Marks: 20

Q.1) Attempt following questions: [10]

1) Explain pulse and DTMF dialing.

Q. 2) Attempt following question: [10]

1) Explain block diagram of modem using FSK.
2) Explain Bluetooth, WiFi, 3G.

B.Sc. Part-III -Semester – VI
ELECTRONICS
Paper XIV- Communication System-II
Unit TEST

Day and Date: 5/1/2022 Total-Marks: 20

Q.1) Attempt following questions: [10]

1) Explain pulse and DTMF dialing.

Q. 2) Attempt following question: [10]

1) Explain block diagram of modem using FSK.
2) Explain Bluetooth, WiFi, 3G.

B.Sc. Part-III -Semester – VI
ELECTRONICS
Paper XIV- Communication System-II
Unit TEST

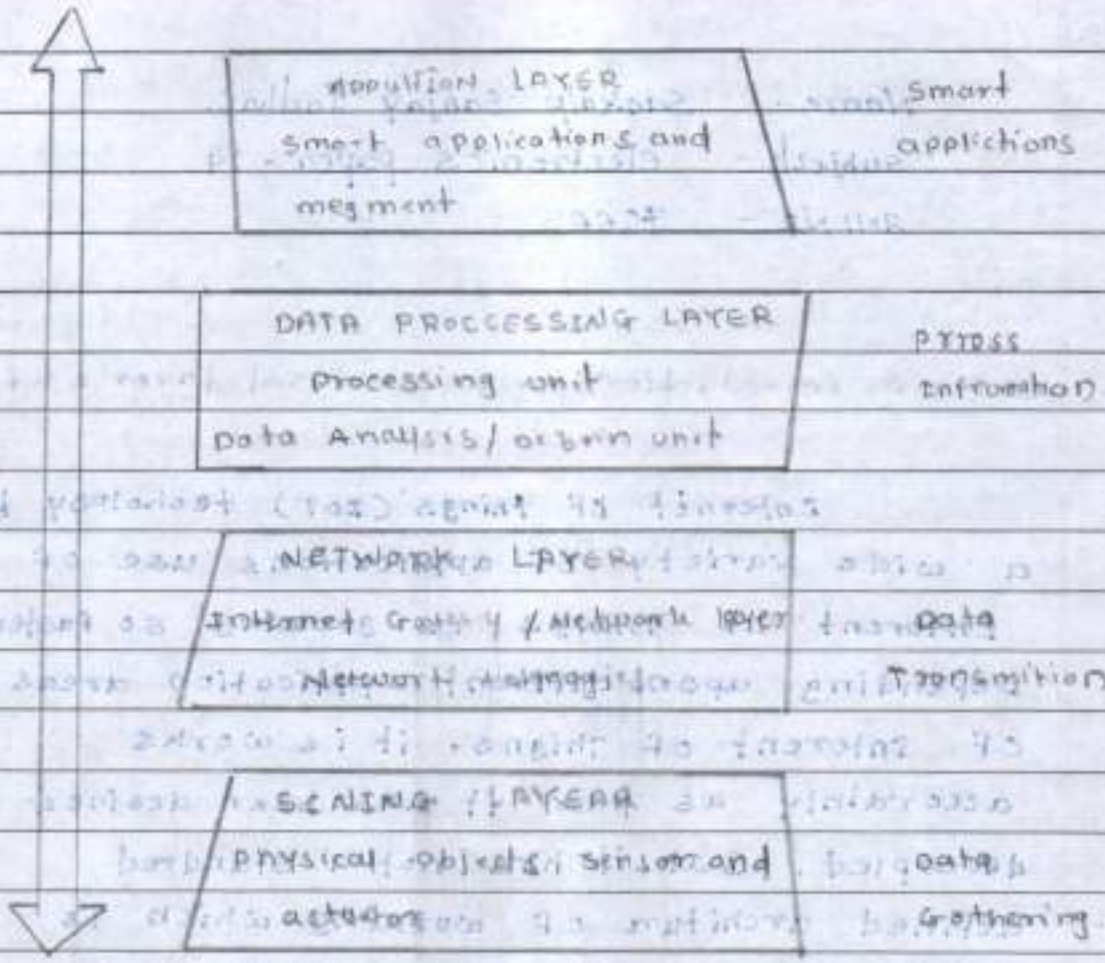
Day and Date: 22/01/2020 Total-Marks: 20

Q.1) Attempt following questions: [10]

1) Explain pulse and DTMF dialing.

Q. 2) Attempt following question: [10]

1) Explain block diagram of modem using FSK.
2) Explain Bluetooth, WiFi, 3G.



i) sensing layer :- sensors, actutors devices are in this sensing layer. These are Actuators acceptes data, proces and over network.

ii) Network layer :- Internet / Network gelowing data requsition systems (DAS) are present in this layer. DAS preforms data aggrgation & conversion function.

iii) Data procesing layers :- This is processing unit of IOT energystem. Here data is anysued per processed before sending it to data centers from wnese data is applications. where data is so here Dedge It or edge analytics comes into picture.

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B.Sc. Part-III -Semester – VI
ELECTRONICS
Paper XIV- Communication System-II
SURPRISE TEST

Day and Date: 29/1/2022 Total-Marks: 20

Q.1) Attempt following questions: [10]

1) What is transponder? Explain any its one configuration.

2) Explain ASK & PSK. [10]

Surprise test.

Name - Sankalp Sanjay Jadhav.
Subject - Electronics paper-14
Roll NO - 7066

1. Explain impact of IOT.

1) Impact of IOT on society :-

- smart homes and offices can save enery costs.
- offering better security by constant surveillance.
- Taking active action, such as aprting the local police body in case of a security brech.
- Reminders of dialy taks such as payment of utilty bits.
- smart automobile than can provide assitance if required assist in controlling vechile speed on the basis of traffic and envionmental conditions.

2) IOT in agriculture :-

with the continous increase in the world's popwlotion, demand for food supply is externely raised. Govermanents are helping farmers to use advanced techinges and research to increase food production.

smart farming is one of the fastest growing field in IOT. Farmars are using menifwl insght from the data to yeild better return on investment.

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B.Sc. Part-III -Semester – VI
ELECTRONICS
Paper XIV- Communication System-II
Open Book Test

Day and Date: 20/2/2022 Total-Marks: 20

Q.1) Attempt following questions:

1) Explain concept of ISDN.

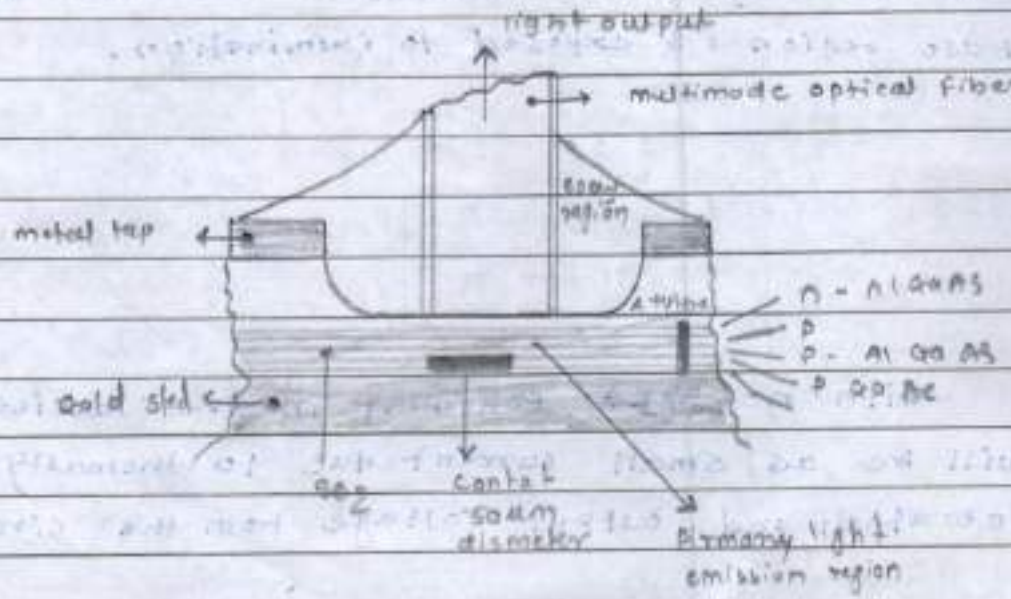
2) Explain function of telephone exchange & classification of telephone Exchange.

open book test.

Name - Sankalp Sanjay Jadhav.
Subject - electronics paper - 14.
Roll No - 7066

1. Explain surface emitter LED's.

A method for obtaining high radince is to restrict emmsion to a small native region with in the device. the technique is order to prvent heavy absorpetion of the emmitted region and physically to accommadate the fiber. These structures have a optical fibre. This type of surface emitter LED has been widely employed with in optical fibre communications. The structure of a high-radiance etched well DH surface emmiter for the 0.8 to 0.9 μm wavelength band is show in figure.



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Date: - 20/12/2021

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Students of B.Sc.III Electronics class hereby informed that, their assignment of **'Paper XV: Advanced Microcontroller Architecture: PIC'** should be submitted until 29/12/21 at the time of their regular period. So it is mandatory submit assignment.

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B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XV: Advanced Microcontroller Architecture: PIC

Home Assignment

Date: 29/12/2021 Total Marks: 10

Q.1 Attempt any One: [10]

a) Explain pin diagram of PIC 18f458.

b) Explain I2C bus protocol.

NAME : Shraddha Suresh Kumbhar
Roll No : 7318
Paper : XV - Advanced Microcontroller Architecture : PIC

HOME ASSIGNMENT

10/10

Q. Attempt any one.

@ Explain. Pin diagram of PIC 18f458.

=>

The PIC 18f458 family members come in different ~~colour~~ package, such as DIP, QEP and LCC. They all have many pins that are

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B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XV: Advanced Microcontroller Architecture: PIC

UNIT TEST

Date: 6/1/2022 Total Marks: 20

Q.1 Attempt any Two: [20]

a) What are different registers involved in timers of PIC, write a program to create square wave at PORTA.1 pin using timer0.

b) Explain different register involved in serial communication of PIC and write ALP to receive data with baud rate 9600.

c) In case of PIC explain Harvard architecture, RISC, Instruction pipelining, watchdog timer.

d) Write the steps for programming the PIC18 to receive data serially and importance of RCIF flag.

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• RISC Architecture :

RISC (reduced instruction set computer) processors have a fixed instruction size. This variable instruction size makes the task of instruction decoder very difficult because the size of all instruction is fixed. Therefore, the CPU can decode instruction quickly.

One of the major characteristics of RISC architecture is a large number of registers. All RISC architecture have at least 32 registers OF these 32 registers, only a few are assigned to a dedicated function. one advantage of a large number of register is that it avoids the need for large stack to store parameters. In the PIC microcontroller the use of a 256-byte bank of the file register satisfies this RISC feature.

• Instruction Pipelining :

In early microprocessors such as the 8085, the CPU could either fetch or execute at a given time. In other words the CPU had to fetch on instruction from memory, then execute it and then fetch the next instruction execute it and so on. The idea of pipelining in its simplest form is allows the CPU to fetch and execute at the sometime as shown in fig.

Non-pipelining	Fetch 1	exec 1	Fetch 2	exec 2	Fetch 3	exec 3

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Name: **Roll No.** **Marks obtained:** **/20**

B.Sc. Part-III -Semester – VI
ELECTRONICS
Paper XV: Advanced Microcontroller Architecture: PIC
Surprise Test

Date: 30/1/2022 Total Marks: 20

Q. 1) Select correct alternative for the following:

1. PIC 18f458 is _____ bi controller
   a) 4 b) 32 c) 8 d) 64
2. _____ Number of ports available in PIC 18f458.
   a) 3 b) 5 c) 2 d) 4
3. In instruction ADDWF f,d,a, if d=1 then results store in _____ register.
   a) File b) W c) both a) & b) d) None of the above
4. To make PORTB as output port you have to make _____.
   a) TRISB=00 b) TRISB=FF c) PORTB=00 d) PORTB=FF
5. _____ bit of T0CON is used to timer 0 ON/OFF.
   a) TMR0ON b) T08BIT c) TOCS d) PSA
6. In PIC ____ H location is assigned to the high priority interrupt.
   a) 0002 b) 0008 c) 0004 d) 0003
7. In serial communication of PIC ____ register is used for baud rate adjustment.
   a) RCSTA b) TXREG c) SPBRG d) PIR1
8. The PIC 18f458 can have ____ number of channels for analog input.
   a) 3 b) 8 c) 10 d) 6
9. Program counter of PIC 18f458 is of ____ bit.
   a) 8 b) 10 c) 21 d) 12
10. To select bank in file register _____ SFR is used.
    a) BSR b) status register c) CONFIG1H d) INTCON
11. After multiplication in PIC18 the result is stored in ____ register.
    a) PRODL b)PRODH c) W d) None of the above
12. In PIC register similar to accumulator of other microcontroller is _____.
    a) TRISA b)STATUS c) BSR d) WREG

13. In PIC reset is _____ type.

a) Active low b) active high c) high d) None of the above

14. In PIC 18f458 PORTA is _____ number of pins.

a) 8 b) 6 c) 3 d) None of the above

15. In PIC 18f458 PORTB is _____ number of pins.

b) 8 b) 6 c) 3 d) None of the above

16. In PIC 18f458 PORTC is _____ number of pins.

c) 8 b) 6 c) 3 d) None of the above

17. In PIC 18f458 PORTD is _____ number of pins.

d) 8 b) 6 c) 3 d) None of the above

18. In PIC 18f458 PORTE is _____ number of pins.

e) 8 b) 6 c) 3 d) None of the above

19. In PIC 18f458 total _____ number of I/O pins.

f) 32 b) 33 c) 30 d) None of the above

20. In PIC, the value of TRISA register after reset is _____.

g) 00 b) FF c) 55 d) None of the above

Answers:-

Q. No.	Answer	Q. No.	Answer
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

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Students of B.Sc.III Electronics class hereby informed that, their assignment of **'Paper XVI: Electronic Instrumentation'** should be submitted until 30/12/21 at the time of their regular period. So it is mandatory submit assignment.

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B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XVI: Electronic Instrumentation

Home Assignment

Date: 30/12/2021 Total Marks: 10

Q.1 Attempt any One: [10]

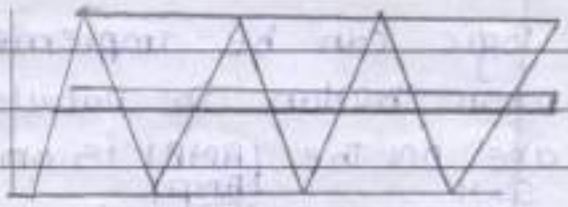
1) Write a note on
   i. Carbon Microphone
   ii. Piezoelectric Microphone
2) Write a note on
   i. LVDT
   ii. Loud Speaker

Home Assignment

Name :- Sneha Byasji Pandey
Subject :- Electronics paper - 16
Roll no :- 7072

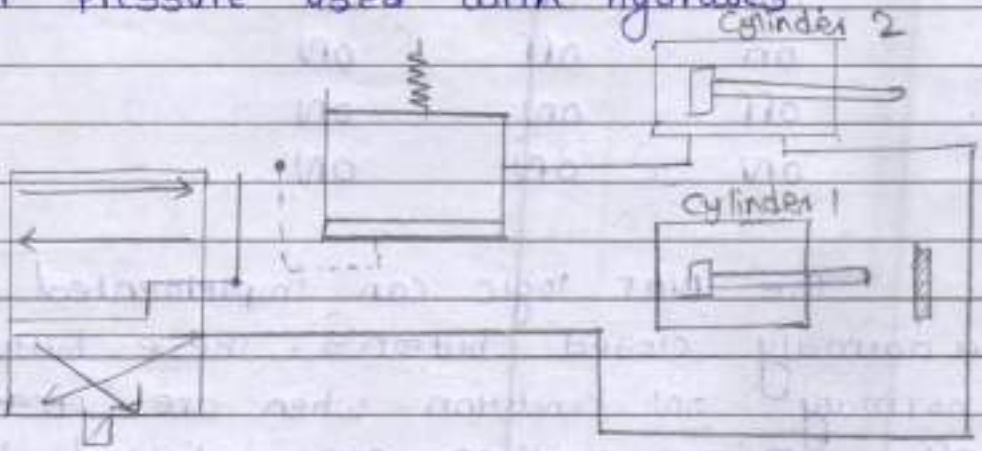
Q1) Explain pneumatic cylinders

The hydralic or penumatic cylinder is an example of a linear actual or sometimes known as air cylenders These are the mechanical device which use the power of compressed gas to produce a force and a respectively linear motion.



Symbol with spring returns

The principle and from are the same for both hydrallic and penumatic version, diffrence being purely a matter of size as a Camsequence of the higher pressure used with hydralics



Q2) Explain program of (logic gate) Boolean logic.

Implementing a boolean logic is very simple in ladder diagram. Consider the simple AND circuit Two push buttons are connected in series to achieve..

"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार"

शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha's

D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 01/01/2022

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their Unit Test of **'Paper XVI: Electronic Instrumentation'** is going to conduct on 06/01/22 at the time of their regular period. So it is mandatory to attend and attempt the examination.

(Mr. Yadav D. A.)

Head,
Department Of Electronics,
Rajarsi Kadam Arts Science
& Commerce College
ICHALKARANJI

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XVI: Electronic Instrumentation

UNIT TEST

Date: 6/1/2022 Total Marks: 20

Q.1 Attempt any Four: [20]

a) Compare open –loop and closed-loop system.

b) Explain the block diagram of PLC.

c) Write a short note on push button switches.

d) Write a short note on SCADA.

e) Explain the open-loop control system and discuss its advantages

f)Explain the working of PI controller using op amp.

"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार"

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D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 01/01/2022

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(Mr. Yadav D. A.)

HOD,
Department Of Electronics,
Rajarsi Kadam Arts Science
& Commerce College
ICHALKARANJI

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XVI: Electronic Instrumentation

UNIT TEST

Date: 6/1/2022 Total Marks: 20

Q.1 Attempt any Four: [20]

a) Compare open –loop and closed-loop system.

b) Explain the block diagram of PLC.

c) Write a short note on push button switches.

d) Write a short note on SCADA.

e) Explain the open-loop control system and discuss its advantages

f)Explain the working of PI controller using op amp.

"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार"

शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha's

D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 18/01/2022

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their Surprise Test of **'Paper XVI: Electronic Instrumentation'** is going to conduct on 30/01/22 at the time of their regular period. So it is mandatory to attend and attempt the examination.

(Mr. Yadav D. A.)

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Department Of Electronics,
Rajaram Kadam Arts Science
& Commerce College
ICHALKARANJI

Name: **Roll No.** **Marks obtained:** **/20**

B.Sc. Part-III -Semester – VI
ELECTRONICS
Paper XVI: Electronic Instrumentation
Surprise Test

Date: 30/1/2022 Total Marks: 20

Q. 1) Select correct alternative for the following:

1) The smallest addressable dot on any display device is called ----------.
a) Dark spot b) Light spot c) Pixel d) None of the above

2) In ---------- the picture on the screen is built by moving the electron beam in series of scan lines.
a) LCD b) VDU c) Magnetic recorder d) None of the above

3) ---------- printer can give the colour prints.
a) Dot matrix b) Ink jet c) Laser jet d) All of the above

4) In magnetic disk the time taken by head for movement on the required track is called as ----------,
a) run time b) seek time c) propagation time d) delay time

5) In magnetic recording the head wait until the required segment moves under it, this time is called as ----------.
a) Seek time b) Run time c) Delay time d) Latency time

6) The address is essential to identify the segments and tracks to record in magnetic disk, writing of this information is called ----------.
a) Recording b) Formatting c) Scanning d) All of the above

7) ---------- recording can be easily corrupted by dust and scratches.
a) Magnetic recording b) Optical recording c) Printer d) None of the above

8) In seven segment display to display number 0, ---------- segment is off.
a) a b) f c) g d) c

9) In seven segment LED display, the function of the decoder driver is to convert ---------- signal in digital output.
a) Gray code b) Hexadecimal c) Octal d) BCD

10) ---------- is comparing the output of measuring system with standards of known accuracy.
a) Error b) Precision c) Resolution d) Calibration

11) ---------- is used to measure the speed of the rotating shaft.
a) Multimeter b) Frequency meter c) Tachometer d) Voltmeter

12) To measure the hydrogen ion activity in a solution ---------- meter is used.
a) Ammeter b) Voltmeter c) Tachometer d) pH meter

13) ---------- is a quantitative measurement of acidity.
a) Solubility b) Current c) pH d) rpm

14) A neutral solution has a pH of ----------.
a) 0 b) 1 c) Infinite d) 7

15) pH of alkaline solution is ----------.
a) 0 b) 7 c) Greater than seven d) Less than seven

16) pH of acidic solution is ----------.
a) 0 b) 7 c) Greater than seven d) Less than seven

17) In CRO the signal is displayed in ---------- .
a) Frequency domain b) Time domain c) Amplitude domain d) None of the above

18) In spectrum analyzer the signal is displayed in ----------.
a) Frequency domain b) Time domain c) Phase domain d) All of the above

19) Spectrum analyzer provides a calibrated graphical display on its CRT, with ----------.
a) Amplitude on x axis and time on y axis b) Frequency on x axis and amplitude on y axis
c) Time on y axis and amplitude on x axis d) Voltage on x axis and time on y axis

20) In spectrum analyzer the height represents ---------- and the horizontal location represents the ----------.
a) Amplitude, Frequency b) Frequency, Amplitude
c) Time, Voltage d) Frequency, voltage

Answers:-

Q. No.	Answer	Q. No.	Answer
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

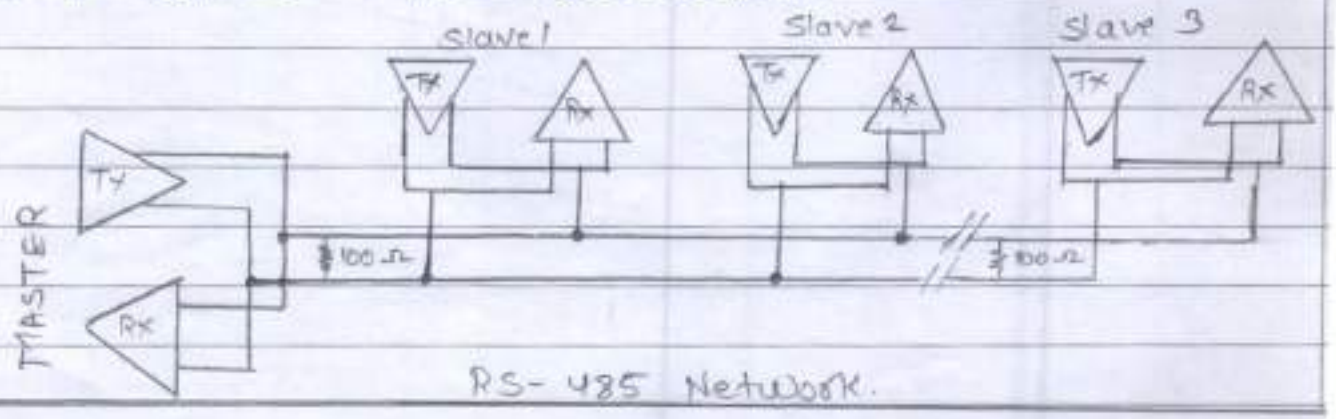
Surprise Test.

Name :- Sneha Byagji Pandey
Subject :- Electronics paper - 16
Roll no :- 7072.

Q1) Explain RS 485 Communication Protocol

RS 485 Communication Protocol is used in many computer and automation system. These are used in programmable logic controllers to comunicate with other PLCs or control units on factory floors It offers data transmission speeds of 35 Nbits up to 1om and 100 Mbps/s at 1200m. RS 485 is always connected series of point to point nodes.

RS 485 networks usually communicate using a twisted pair of wires, where data flows in both directions. Each device turn on its line drive only when transcripting data & keeps it of for the remaining time to flow other devices to transmit at a time, which is called a half duplex operation A noise margin of I 0.2V level is difined to enhave noise immunity. The balanced data transmission cansels the induced noise, since the same noise is induced in both Conductors of the pair, Preserving the voltage diffrence that carries the Information.



RS-485 Network.

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Shri Swami Vivekanand Shikshan Sanstha's

D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 08/02/2022

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their Open Book Test of **'Paper XVI: Electronic Instrumentation'** is going to conduct on 22/02/22 at the time of their regular period. So it is mandatory to attend and attempt the examination.

(Mr. Yadav D. A.)

HEAD,
Department Of Electronics,
Shri Vivekanand Arts Science
& Commerce College
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B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XVI: Electronic Instrumentation

Open Book Test

Date: 22/2/2022 Total Marks: 20

Q.1 Attempt any Two: [20]

a) Explain the working of P, PI and PID controller using Op amp.

b) Construct the ladder programming for bottle filling plant.

c) Write a ladder program for Boolean functions AND, OR, NOT, NAND, and NOR. Explain its working with help of ladder diagram.

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XVI: Electronic Instrumentation

Open Book Test

Date: 22/2/2022 Total Marks: 20

Q.1 Attempt any Two: [20]

a) Explain the working of P, PI and PID controller using Op amp.

b) Construct the ladder programming for bottle filling plant.

c) Write a ladder program for Boolean functions AND, OR, NOT, NAND, and NOR. Explain its working with help of ladder diagram.

Q2) Explain two position control using op-amp.

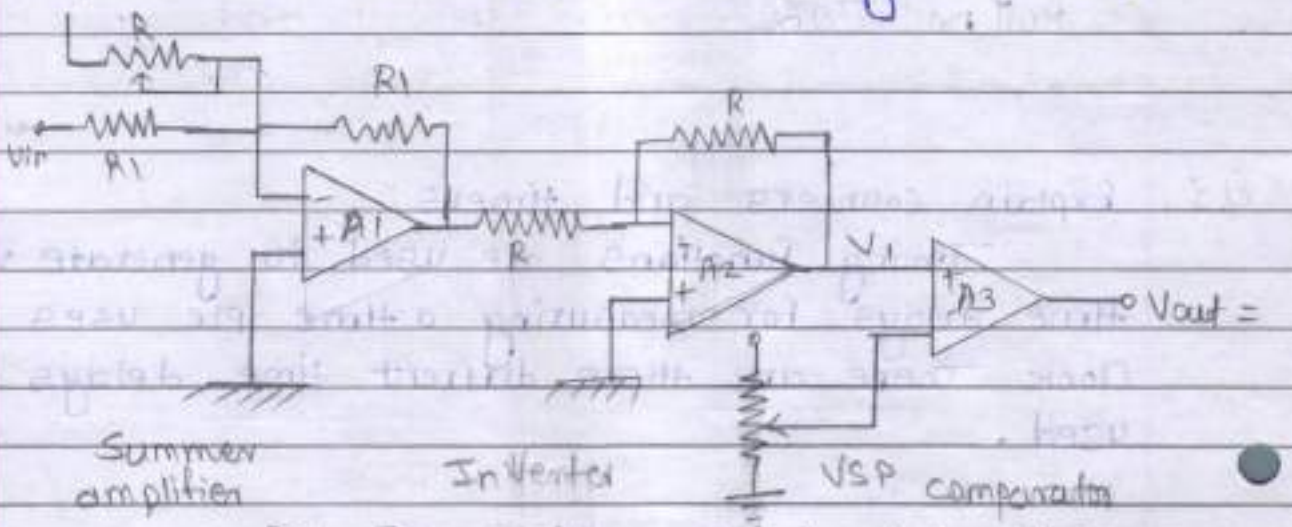
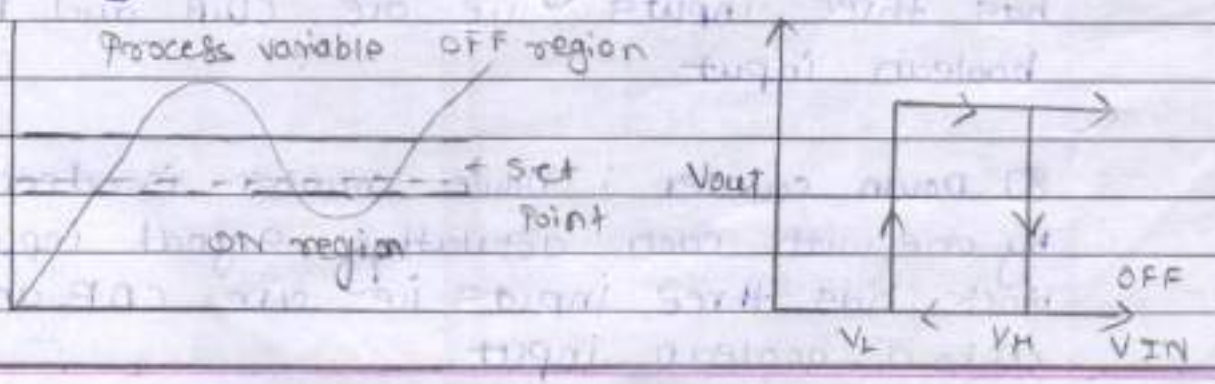


Fig Two position control using Op-amp

The Two position controllers are used in many household equipment such as air conditioners heaters and liquid level control. These are very simple to design and we inexpensive. In these control if the controlled variable increase or decrease than a certain fixed value or called a set point than the actuation signals are generated.

The op-amp A1 is a summing amplifire which has input signals vin and vout adjust the natural zone a differtial band gap This natural zone can be controlled by adjusting the value of R2 The op-amp A2 is unity gain inverting amplifire which change the sign of output voltage from summing amplifire.



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D. K. A. S. C. College, Ichalkaranji

Department of Electronics

Date: - 08/02/2022

Notice

(B. Sc. III Electronics students)

Students of B.Sc.III Electronics class hereby informed that, their Open Book Test of **'Paper XV: Advanced Microcontroller Architecture: PIC'** is going to conduct on 21/02/22 at the time of their regular period. So it is mandatory to attend and attempt the examination.

(Mr. Yadav D. A.)

HEAD,
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Dr. Patangrao Kadam Arts Science
& Commerce College
ICHALKARANJI

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XV: Advanced Microcontroller Architecture: PIC

Open Book Test

Date: 21/2/2022 Total Marks: 20

Q.1 Attempt any Two: [20]

a) Explain Status register in PIC microcontroller.

b) Explain stack and stack pointer in PIC18.

c) Write an ALP program to generate square wave at a port pin.

d) With neat diagram explain the Minimum connection for PIC.

B.Sc. Part-III -Semester – VI

ELECTRONICS

Paper XV: Advanced Microcontroller Architecture: PIC

Open Book Test

Date: 21/2/2022 Total Marks: 20

Q.1 Attempt any Two: [20]

a) Explain Status register in PIC microcontroller.

b) Explain stack and stack pointer in PIC18.

c) Write an ALP program to generate square wave at a port pin.

d) With neat diagram explain the Minimum connection for PIC.

- **C - The Carry Flag.**

This Flag is set whenever there is a carry out from the D7 bit. This flag bit is affected after an 8-bit addition or subtraction chapter 5 shows how the carry flag is used.

- **DC - The Digital Carry Flag.**

If there is a carry from D3 to D4 during an ADD or SUB operation, this bit is set, otherwise it is cleared. This flag bit used by instructions that performs BCD arithmetic. In same microprocessors this is called the AC Flag.

- **Z - The Zero Flag.**

The zero flag reflects the result of an arithmetic or logic operation. If the result is zero, then Z=1. Therefore Z=0 if the result is not zero.

- **OV - The Overflow Flag.**

This Flag is set whenever the result of a signed number operation is too large. Causing the high-order bit to overflow into the sign bit. In general, the carry flag is used to detect errors in unsigned arithmetic operation while the overflow flag is used to detect error in signed arithmetic operation.

DEPARTMENT OF ELECTRONICS

Continuous Internal Evaluation (C.I.E.) Report for B.Sc.III- Sem-VI Paper-XVI (2021-22)

Sr.No.	Roll No.	Name of the Students	Home Assignment [10]	Unit Test [20]	Surprise Tests [10]	Open book Test [20]	Total Marks [60]	Remark (%)
1	7057	SHRI. SANKET S.B	10	18	8	18	54	90
2	7058	SHRI.BHOSALE S.A	10	17	8	17	52	87
3	7059	SHRI.BUKKA S.S.	10	17	7	19	53	88
4	7060	SHRI.GALANDE M.L.	10	16	7	15	48	80
5	7061	MISS.KALANTRE P.N.	10	18	6	14	48	80
6	7062	SHRI.MAGDUM S.J.	10	15	4	16	45	75
7	7063	MISS.MASKAR S.J.	10	14	7	17	48	80
8	7064	MISS.MAYANNA S.S.	10	12	4	18	44	73
9	7065	SHRI.MORE P.S.	9	13	6	17	45	75
10	7066	MISS.PARIT A.S.	9	18	8	18	53	88
11	7067	MISS.PATEL S.Z.	9	16	5	17	47	78
12	7068	SHRI.PATIL N.S.	10	17	9	18	54	90
13	7069	MISS.SHINDE N.A.	10	15	7	16	48	80
14	7070	MISS.MAITHILI S.V.	10	14	4	14	42	70
15	7313	MISS.DESHMUKH J.G.	10	16	6	15	47	78
16	7314	SHRI KAMATE S.D.	10	18	8	18	54	90
17	7315	SHRI.KAMBLE A.S.	10	17	8	17	52	87
18	7316	MISS.KAVADE J.D.	10	17	7	19	53	88
19	7317	SHRI.KORAVI R.S.	10	16	7	15	48	80
20	7318	MISS.KUMBHAR S.S.	10	18	6	14	48	80
21	7319	MISS.PATIL P.R.	10	15	4	16	45	75
22	7320	MISS.PATIL T.S.	10	14	7	17	48	80
23	7321	SHRI.SANKPAL A.A.	10	12	4	18	44	73
24	7322	MISS.SUTAR A.A.	9	13	6	17	45	75

Head,
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DEPARTMENT OF ELECTRONICS

Continuous Internal Evaluation (C.I.E.) Report for B.Sc.III- Sem-V, Paper-IX (2021-22)

Sr.No.	Roll No.	Name of the Students	Home Assignment [10]	Unit Test [20]	Surprise Tests [10]	Open book Test [20]	Total Marks [60]	Remark (%)
1	7057	SHRI. SANKET S.B	10	15	8	19	52	87
2	7058	SHRI.BHOSALE S.A	10	16	7	14	47	78
3	7059	SHRI.BUKKA S.S.	10	17	6	18	51	85
4	7060	SHRI.GALANDE M.L.	10	18	7	17	52	87
5	7061	MISS.KALANTRE P.N.	10	19	4	17	50	83
6	7062	SHRI.MAGDUM S.J.	10	17	8	17	52	87
7	7063	MISS.MASKAR S.J.	10	18	5	18	51	85
8	7064	MISS.MAYANNA S.S.	10	18	8	14	50	83
9	7065	SHRI.MORE P.S.	10	15	9	18	52	87
10	7066	MISS.PARIT A.S.	10	16	6	17	49	82
11	7067	MISS.PATEL S.Z.	10	16	7	18	51	85
12	7068	SHRI.PATIL N.S.	10	14	8	18	50	83
13	7069	MISS.SHINDE N.A.	10	15	9	14	48	80
14	7070	MISS.MAITHILI S.V.	10	18	4	15	47	78
15	7313	MISS.DESHMUKH J.G.	10	17	10	18	55	92
16	7314	SHRI KAMATE S.D.	10	18	5	18	51	85
17	7315	SHRI.KAMBLE A.S.	10	18	8	14	50	83
18	7316	MISS.KAVADE J.D.	10	15	9	18	52	87
19	7317	SHRI.KORAVI R.S.	10	16	6	17	49	82
20	7318	MISS.KUMBHAR S.S.	10	16	7	18	51	85
21	7319	MISS.PATIL P.R.	10	14	8	18	50	83
22	7320	MISS.PATIL T.S.	10	15	9	14	48	80
23	7321	SHRI.SANKPAL A.A.	10	18	4	15	47	78
24	7322	MISS.SUTAR A.A.	10	17	10	18	55	92

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Continuous Internal Evaluation (C.I.E.) Report for B.Sc.III- Sem-V, Paper-X (2021-22)

Sr.No.	Roll No.	Name of the Students	Home Assignment [10]	Unit Test [20]	Surprise Tests [10]	Open book Test [20]	Total Marks [60]	Remark (%)
1	7057	SHRI. SANKET S.B	9	18	8	18	53	88
2	7058	SHRI.BHOSALE S.A	9	17	8	17	51	85
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6	7062	SHRI.MAGDUM S.J.	9	15	4	16	44	73
7	7063	MISS.MASKAR S.J.	9	14	7	17	47	78
8	7064	MISS.MAYANNA S.S.	9	12	4	18	43	72
9	7065	SHRI.MORE P.S.	9	13	6	17	45	75
10	7066	MISS.PARIT A.S.	9	18	8	18	53	88
11	7067	MISS.PATEL S.Z.	9	16	5	17	47	78
12	7068	SHRI.PATIL N.S.	9	17	9	18	53	88
13	7069	MISS.SHINDE N.A.	9	15	7	16	47	78
14	7070	MISS.MAITHILI S.V.	9	14	4	14	41	68
15	7313	MISS.DESHMUKH J.G.	8	16	6	15	45	75
16	7314	SHRI KAMATE S.D.	9	14	7	17	47	78
17	7315	SHRI.KAMBLE A.S.	9	12	4	18	43	72
18	7316	MISS.KAVADE J.D.	9	13	6	17	45	75
19	7317	SHRI.KORAVI R.S.	9	18	8	18	53	88
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23	7321	SHRI.SANKPAL A.A.	9	14	4	14	41	68
24	7322	MISS.SUTAR A.A.	8	16	6	15	45	75

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DEPARTMENT OF ELECTRONICS

Continuous Internal Evaluation (C.I.E.) Report for B.Sc.III- Sem-V, Paper-XI (2021-22)

Sr.No.	Roll No.	Name of the Students	Home Assignment [10]	Unit Test [20]	Surprise Tests [10]	Open book Test [20]	Total Marks [60]	Remark (%)
1	7057	SHRI. SANKET S.B	9	18	9	18	54	90
2	7058	SHRI.BHOSALE S.A	9	18	9	18	54	90
3	7059	SHRI.BUKKA S.S.	10	17	5	18	50	83
4	7060	SHRI.GALANDE M.L.	10	15	7	19	51	85
5	7061	MISS.KALANTRE P.N.	9	12	5	17	43	72
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7	7063	MISS.MASKAR S.J.	9	14	8	18	49	82
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9	7065	SHRI.MORE P.S.	10	18	8	17	53	88
10	7066	MISS.PARIT A.S.	10	12	6	18	46	77
11	7067	MISS.PATEL S.Z.	9	15	8	15	47	78
12	7068	SHRI.PATIL N.S.	10	14	8	16	48	80
13	7069	MISS.SHINDE N.A.	10	16	9	18	53	88
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24	7322	MISS.SUTAR A.A.	10	17	7	19	53	88

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DEPARTMENT OF ELECTRONICS

Continuous Internal Evaluation (C.I.E.) Report for B.Sc.III- Sem-V, Paper-XII (2021-22)

Sr.No.	Roll No.	Name of the Students	Home Assignment [10]	Unit Test [20]	Surprise Tests [10]	Open book Test [20]	Total Marks [60]	Remark (%)
1	7057	SHRI. SANKET S.B	9	11	5	18	43	72
2	7058	SHRI.BHOSALE S.A	9	15	5	17	46	77
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5	7061	MISS.KALANTRE P.N.	10	18	7	14	49	82
6	7062	SHRI.MAGDUM S.J.	10	17	9	15	51	85
7	7063	MISS.MASKAR S.J.	10	18	9	18	55	92
8	7064	MISS.MAYANNA S.S.	10	18	10	19	57	95
9	7065	SHRI.MORE P.S.	9	19	9	14	51	85
10	7066	MISS.PARIT A.S.	10	8	0	18	36	60
11	7067	MISS.PATEL S.Z.	9	18	8	17	52	87
12	7068	SHRI.PATIL N.S.	10	10	8	17	45	75
13	7069	MISS.SHINDE N.A.	10	10	8	17	45	75
14	7070	MISS.MAITHILI S.V.	10	18	7	18	53	88
15	7313	MISS.DESHMUKH J.G.	10	4	6	14	34	57
16	7314	SHRI KAMATE S.D.	10	18	9	18	55	92
17	7315	SHRI.KAMBLE A.S.	10	18	10	19	57	95
18	7316	MISS.KAVADE J.D.	9	19	9	14	51	85
19	7317	SHRI.KORAVI R.S.	10	8	0	18	36	60
20	7318	MISS.KUMBHAR S.S.	9	18	8	17	52	87
21	7319	MISS.PATIL P.R.	10	10	8	17	45	75
22	7320	MISS.PATIL T.S.	10	10	8	17	45	75
23	7321	SHRI.SANKPAL A.A.	10	18	7	18	53	88
24	7322	MISS.SUTAR A.A.	10	4	6	14	34	57

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DEPARTMENT OF ELECTRONICS

Continuous Internal Evaluation (C.I.E.) Report for B.Sc.III- Sem-V Paper-XIII (2021-22)

Sr.No.	Roll No.	Name of the Students	Home Assignment [10]	Unit Test [20]	Surprise Tests [10]	Open book Test [20]	Total Marks [60]	Remark (%)
1	7057	SHRI. SANKET S.B	9	15	8	19	51	85
2	7058	SHRI.BHOSALE S.A	10	16	7	14	47	78
3	7059	SHRI.BUKKA S.S.	10	17	6	18	51	85
4	7060	SHRI.GALANDE M.L.	10	18	7	17	52	87
5	7061	MISS.KALANTRE P.N.	9	19	4	17	49	82
6	7062	SHRI.MAGDUM S.J.	10	17	8	17	52	87
7	7063	MISS.MASKAR S.J.	10	18	5	18	51	85
8	7064	MISS.MAYANNA S.S.	8	18	8	14	48	80
9	7065	SHRI.MORE P.S.	10	15	9	18	52	87
10	7066	MISS.PARIT A.S.	10	16	6	17	49	82
11	7067	MISS.PATEL S.Z.	9	16	7	18	50	83
12	7068	SHRI.PATIL N.S.	10	14	8	18	50	83
13	7069	MISS.SHINDE N.A.	10	15	9	14	48	80
14	7070	MISS.MAITHILI S.V.	8	18	4	15	45	75
15	7313	MISS.DESHMUKH J.G.	10	17	10	18	55	92
16	7314	SHRI KAMATE S.D.	10	17	6	18	51	85
17	7315	SHRI.KAMBLE A.S.	10	18	7	17	52	87
18	7316	MISS.KAVADE J.D.	9	19	4	17	49	82
19	7317	SHRI.KORAVI R.S.	10	17	8	17	52	87
20	7318	MISS.KUMBHAR S.S.	10	18	5	18	51	85
21	7319	MISS.PATIL P.R.	8	18	8	14	48	80
22	7320	MISS.PATIL T.S.	10	15	9	18	52	87
23	7321	SHRI.SANKPAL A.A.	10	16	6	17	49	82
24	7322	MISS.SUTAR A.A.	9	16	7	18	50	83

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DEPARTMENT OF ELECTRONICS

Continuous Internal Evaluation (C.I.E.) Report for B.Sc.III- Sem-VI Paper-XIV (2021-22)

Sr.No.	Roll No.	Name of the Students	Home Assignment [10]	Unit Test [20]	Surprise Tests [10]	Open book Test [20]	Total Marks [60]	Remark (%)
1	7057	SHRI. SANKET S.B	10	19	9	19	57	95
2	7058	SHRI.BHOSALE S.A	10	8	0	14	32	53
3	7059	SHRI.BUKKA S.S.	10	18	8	18	54	90
4	7060	SHRI.GALANDE M.L.	10	10	8	17	45	75
5	7061	MISS.KALANTRE P.N.	10	10	8	17	45	75
6	7062	SHRI.MAGDUM S.J.	10	18	7	17	52	87
7	7063	MISS.MASKAR S.J.	10	4	6	18	38	63
8	7064	MISS.MAYANNA S.S.	10	11	5	14	40	67
9	7065	SHRI.MORE P.S.	10	15	5	18	48	80
10	7066	MISS.PARIT A.S.	10	14	8	17	49	82
11	7067	MISS.PATEL S.Z.	10	18	5	18	51	85
12	7068	SHRI.PATIL N.S.	10	18	7	18	53	88
13	7069	MISS.SHINDE N.A.	10	17	9	14	50	83
14	7070	MISS.MAITHILI S.V.	10	18	9	15	52	87
15	7313	MISS.DESHMUKH J.G.	10	18	10	18	56	93
16	7314	SHRI KAMATE S.D.	10	4	6	18	38	63
17	7315	SHRI.KAMBLE A.S.	10	11	5	14	40	67
18	7316	MISS.KAVADE J.D.	10	15	5	18	48	80
19	7317	SHRI.KORAVI R.S.	10	14	8	17	49	82
20	7318	MISS.KUMBHAR S.S.	10	18	5	18	51	85
21	7319	MISS.PATIL P.R.	10	18	7	18	53	88
22	7320	MISS.PATIL T.S.	10	17	9	14	50	83
23	7321	SHRI.SANKPAL A.A.	10	18	9	15	52	87
24	7322	MISS.SUTAR A.A.	10	18	10	18	56	93

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Continuous Internal Evaluation (C.I.E.) Report for B.Sc.III- Sem-VI Paper-XV (2021-22)

Sr.No.	Roll No.	Name of the Students	Home Assignment [10]	Unit Test [20]	Surprise Tests [10]	Open book Test [20]	Total Marks [60]	Remark (%)
1	7057	SHRI. SANKET S.B	10	18	9	18	55	92
2	7058	SHRI.BHOSALE S.A	10	18	9	18	55	92
3	7059	SHRI.BUKKA S.S.	10	17	5	18	50	83
4	7060	SHRI.GALANDE M.L.	10	15	7	19	51	85
5	7061	MISS.KALANTRE P.N.	10	12	5	17	44	73
6	7062	SHRI.MAGDUM S.J.	10	13	6	18	47	78
7	7063	MISS.MASKAR S.J.	10	14	8	18	50	83
8	7064	MISS.MAYANNA S.S.	10	16	4	17	47	78
9	7065	SHRI.MORE P.S.	10	18	8	17	53	88
10	7066	MISS.PARIT A.S.	10	12	6	18	46	77
11	7067	MISS.PATEL S.Z.	10	15	8	15	48	80
12	7068	SHRI.PATIL N.S.	10	14	8	16	48	80
13	7069	MISS.SHINDE N.A.	10	16	9	18	53	88
14	7070	MISS.MAITHILI S.V.	10	17	7	19	53	88
15	7313	MISS.DESHMUKH J.G.	10	18	4	17	49	82
16	7314	SHRI KAMATE S.D.	10	14	8	18	50	83
17	7315	SHRI.KAMBLE A.S.	10	16	4	17	47	78
18	7316	MISS.KAVADE J.D.	10	18	8	17	53	88
19	7317	SHRI.KORAVI R.S.	10	12	6	18	46	77
20	7318	MISS.KUMBHAR S.S.	10	15	8	15	48	80
21	7319	MISS.PATIL P.R.	10	14	8	16	48	80
22	7320	MISS.PATIL T.S.	10	16	9	18	53	88
23	7321	SHRI.SANKPAL A.A.	10	17	7	19	53	88
24	7322	MISS.SUTAR A.A.	10	18	4	17	49	82

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