

Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)
Department of Electronics
Notice

Date: 26.09.2025

All the students of B.Sc. II **Major Electronics** are hereby informed that their internal examination for Semester III will be conducted in offline mode as per given schedule.

Course Code	Course title	Marks	Date	Time
2DSC03ELE31	Analog and Digital Communication	10	Wednesday, 01.10.2025	03:00 pm-03:45 pm
2DSC03ELE32	Microprocessor 8085	10		03:45 pm-04:30 pm




(Dr. C. B. Patil)
HEAD
DEPARTMENT OF ELECTRONICS
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)
Department of Electronics
Notice

Date: 26.09.2025

All the students of B.Sc. II **Minor Electronics** are hereby informed that their internal examination for Semester III will be conducted in offline mode as per given schedule.

Course Code	Course title	Marks	Date	Time
2MIN03ELE31	Principles of Electronic Communication	10	Friday, 03.10.2025	03:00 pm-03:45 pm
2MIN03ELE32	Architecture of 8051 Microcontroller	10		03:45 pm-04:30 pm




(Dr. C. B. Patil)
HEAD
DEPARTMENT OF ELECTRONICS
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)

B.Sc. - II Sem - III **Major Electronics** Internal Exam Attendance Sheet 2025-26

Sr No	Roll No	Student Name	Date: 01/10/2025 03:00 to 03:45 pm	Date: 01/10/2025 03:45 to 04:30 pm
			2DSC03ELE31	2DSC03ELE32
1	7277 7993	PATIL RAJWARDHAN SHRIRAM	<i>Patil</i>	<i>Patil</i>
2	7759	SHINDE SHREEYASH FIROJ	<i>SB</i>	<i>SB</i>
3	7760	KOLI SAMIKSHA SANTOSH	<i>Koli</i>	<i>Koli</i>
4	7761	SUTAR SHRUTI ANANDA	<i>Sutar</i>	<i>Sutar</i>
5	7762	RATHOD LAXMI MACHHINDRA	<i>L.M. Rathod</i>	<i>L.M. Rathod</i>
6	7977	HAVALDAR HARSHA BALASO	<i>Bew</i>	<i>Bew</i>
7	7986	PATIL AMIT SADASHIV	<i>- A -</i>	<i>- A -</i>
8	7987	KOLI SAMARTH BALASAHEB	<i>S.B. Koli</i>	<i>S.B. Koli</i>
9	7988	METHE NIKHIL KRISHNAT	<i>Kmethy</i>	<i>Kmethy</i>

Y.R. Bagade
Teacher Incharge *P.R. Bagade*



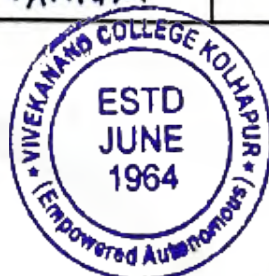
Vivekanand College, Kolhapur
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B.Sc. II (SEM-III) Minor Electronics Internal Exam Attendance Sheet 2025-26

Sr No	Roll No	Student Name	Date: 04/10/2025 03:00 to 03:45 pm	Date: 04/10/2025 03:45 to 04:30 pm		
			2MIN03ELE31	2MIN03ELE32		
1	7712	KUMBHAR ADITI SANDIP	<u>Acumbhar.</u>	<u>Acumbhar.</u>	3	2
2	7713	POWAR SAMRUDDHI KRUSHNAT	<u>Sowar.</u>	<u>Sowar.</u>	01	3
3	7714	DIXIT SAMRUDDHI SATYA	<u>Dixit.</u>	<u>Dixit.</u>	2	3
4	7715	MANE DINESH DATTATRAY	<u>-A-</u>	<u>-A-</u>	Ab	AL
5	7716	PATIL ANUSHKA JINGONDA	<u>Apail</u>	<u>Apail</u>	5	5
6	7763	CHANDREKAR VIGHNESH RAJESH	<u>Ch</u>	<u>Ch</u>	9	6
7	7764	JOHAR ADARSH RAVINDRA	<u>Aplos</u>	<u>Aplos</u>	5	7
8	7765	KUMBHAR JAYDEEP SHANKAR	<u>JB</u>	<u>JB</u>	3	7
9	7766	KUWALEKAR KOUSTUBH BHASKAR	<u>Kushubh</u>	<u>Kushubh</u>	6	8
10	7767	LOKHANDE APURVA DILIP	<u>Alkhande</u>	<u>Alkhande</u>	3	7
11	7768	MALAGE PRATIKRAJ JAYKUMAR	<u>Pralage</u>	<u>Pralage</u>	4	7
12	7769	MANE AVIRAJ BALKRISHNA	<u>Airaj</u>	<u>Airaj</u>	6	8
13	7770	MASARANKAR SAMIKSHA GOVIND	<u>Qu.</u>	<u>Qu.</u>	7	7
14	7771	MOHITE ARJUN KIRAN	<u>Arjun</u>	<u>Arjun</u>	2	7
15	7772	PATIL ADITYA SHIVAJI	<u>Patil</u>	<u>Patil</u>	2	4
16	7773	RAUT SIDDHI SHIVAJI	<u>Raut</u>	<u>Raut</u>	2	4
17	7774	THORAWADE SHIVRAJ RAMCHANDRA	<u>S.R. Thorawade</u>	<u>S.R. Thorawade</u>	2	6
18	7775	CHOUGALE AYUSH BALAVANT	<u>Chougale</u>	<u>Chougale</u>	5	8
19	7776	KAMAT SHRIVEN SANDIP	<u>Shriven</u>	<u>Shriven</u>	6	8
20	7777	KUMBHAR GOURI TANAJI	<u>Gumbh</u>	<u>Gumbh</u>	9	7
21	7778	KUMBHAR SIDDHI UDAY	<u>Kumbhar</u>	<u>Kumbhar</u>	6	7
22	7779	PATIL AISHWARYA BABASO	<u>Patil</u>	<u>Patil</u>	9	7
23	7780	SHINDE ANNADA SURAJ	<u>Shinde</u>	<u>Shinde</u>	8	4
24	7781	KIRAMATE SAKSHI SURESH	<u>Sakshik</u>	<u>Sakshik</u>	6	4
25	7782	SATARMEKAR NIDA NISARAHAMAD	<u>Sturker</u>	<u>Sturker</u>	4	4
26	7705	PRANALI RAMEH GADKAR	<u>Pranali</u>	<u>Pranali</u>	3	5
27	7993	Patil Rajwardhan Shriram			6	4

Teacher Incharge 1

Teacher Incharge 2



Vivekanand College, Kolhapur

(An Empowered Autonomous Institute)

Internal Examination 2025-26

B.Sc. Part- II (Electronics) (Sem-III)

Course Code: DSC-V: 2DSC03ELE31

Course Name: Analog and Digital Communication

Date: 01/10/2025

Marks: 10

Q.1) Select most correct alternatives for the following (one mark each)

[2 Marks]

1. TV broadcasting is example of ----- communication.

A) Full duplex

B) Half duplex

C) Simplex

D) Both A and B

2. In any communication system, the S/N ratio should be -----

A) As low as possible

B) As high as possible

C) Infinite

D) None of these

Q.2) Attempt any TWO (Four marks each)

[8 Marks]

1. Explain the terms simplex and duplex communication with example.

2. Define the noise. What is mean by external noise? Describe its different types.

3. Define Demodulation. Explain the working of AM diode detector



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Internal Examination 2025-26

B.Sc. Part- II (Electronics) (Sem-III) Course Code: 2DSC03ELE32

Course Name: Microprocessor 8085

Date: 01/10/2025

Marks: 10

Q.1) A. Select correct alternative (one mark each)

(02)

i) The 8085 is _____ bit register.

a) 8

b) 16

c) 32

d) 64

ii) _____ is a memory pointer register.

a) Flag

b) SP

c) PC

d) D-E

Q. 2) Attempt any two (4 marks each)

(08)

i) Interface 2764 EPROM memory chip with 8085 microprocessor.

ii) Explain the Flag register of 8085.

iii) Explain any two arithmetic instructions with suitable examples.



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Internal Examination March-2026

B.Sc. Part- II (Electronics) (Sem-III)

Course Code & Name: MIN03ELE31 (Principles of Electronic Communication)

Date:

Marks: 10

Q.1) Select most correct alternatives for the following (one mark each)

[2 Marks]

1. Communication through walky-talky is a -----

A) Full duplex

B) Half duplex

C) Simplex

D) Both A and B

2. For successful communications, amplification of signal is required -----

A) at transmitter only

B) at receiver only

C) both at transmitter & at receiver

D) None of these

Q.2) Attempt any TWO (Four marks each)

1. Define the noise. What is mean by internal noise? Describe its different types.

2. Explain necessity of modulation in wireless communication?

3. Define the following terms -

a) Bandwidth,

b) Gain

c) Attenuation

d) Broadband Signal



[4 Marks]

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Internal Examination 2025-26

B.Sc. Part- II (Electronics) (Sem-III) Course Code: 2MIN03ELE31

Course Name: Architecture of 8051

Date: 04/10/2025

Marks: 10

Q.1) A. Select correct alternative (one mark each)

(02)

i) 8051 has internal ROM of _____

a) 4 KB

b) 128 Bytes

c) 64 KB

d) 256 Bytes

ii) DPTR is a _____ bit register

a) 10 Bit

b) 8 Bit

c) 16 Bit

d) 6 Bit

Q. 2) Attempt any two (4 marks each)

(08)

i) Explain any two data transfer instructions with examples.

ii) Explain the PSW register of 8051.

iii) Explain any two arithmetic instructions with suitable examples.





॥ ज्ञान, विज्ञान आणि सुसंस्कार यासाठी शिक्षण प्रसार ॥
- शिक्षणमहर्षी डॉ. बापूजी साळुंखे

10
10

VIVEKANAND COLLEGE, KOLHAPUR.
(Empowered Autonomous)

SUPPLIMENT

Jr. Supervisor's Sign. :

Students Sign. : *[Signature]*

Seat No. : 7761

Seat No. in words :

Suppliment No. :

19703

Centre - VCK ,

प्र. क्र.
Q. No.

1.

1) C) Simplex

2) B) As high as possible

(अधिकारपद्धत स्वायत्त)

कोल्हापूर

Q 2.

1. • Simplex communication :

One way communication (simplex)

One way communication system or simplex communication is this simplest form of communication

In simplex communication information travel only in one direction

ex., - TV broadcasting
music radio.

• Duplex communication

two way communication (Duplex)



02

Section

Q. No.

Marks

प्र. क्र.

Q. No.

Transmitter



channel



Receiver.

• Duplex communication :-

It is a two way communication system. There are two types of duplex.

1. Full Duplex.

2. Half Duplex.

Full Duplex :-

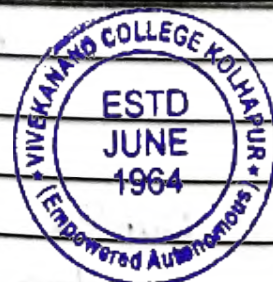
In the full duplex mode the transmission of the information between the sender & receiver can occur simultaneously.
ex. Telephone.

(अधिकारपदस्त स्वायत्त)

Half Duplex :- कोल्हापूर

In the half duplex mode the information can be send in both direction but we can send one data one time no both data simultaneously.

ex. Walky talky.





(अधिकारप्रदत्त स्वायत्त)
कोल्हापूर

VIVEKANAND COLLEGE, KOLHAPUR.
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SUPPLIMENT

॥ ज्ञान, विज्ञान आणि सुसंस्कार यासाठी शिक्षण प्रसार ॥

- शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Jr. Supervisor's Sign. :

Students Sign. :

Seat No. : 7761

Seat No. in words :

Suppliment No. :

19715

Centre

VCK.

प्र. क्र.

Q. No.

1.

1. b) 8.

2. b) Flag.

(अधिकारप्रदत्त स्वायत्त)

कोल्हापूर

Q 2. 3

⇒

• sign Flag (s)

After execution of any arithmetic & logical operation if D7 of result is 1, the sign flag is set [s=1] otherwise the reset [s=0]

• Zero Flag (z)

After the result is arithmetic & logical operation if zero flag is set [z=1] otherwise Reset [z=0]

• Auxiliary carry flag (ac)

D3 generates any carry when during



Name - Samiksha Santosh Koli



(अधिकारपदत्त स्वायत्त)
कोल्हापूर

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6/10

3

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Jr. Supervisor's Sign. :

Students Sign. : *[Signature]*

Seat No. : 7760

Seat No. in words :

Suppliment No. :

15837

Centre VCK

प्र. क्र.

Q. No.

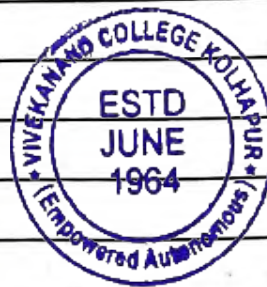
Q.1)

1) 8085 μ P is ----- bit microprocessor.

16

2) ----- is a memory pointer register.

Flag



प्र. क्र.

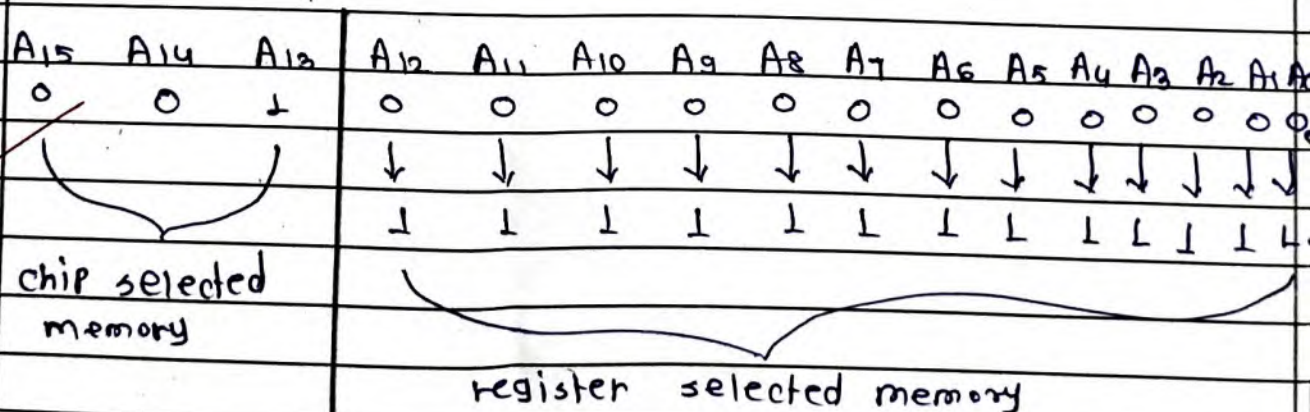
Q. No.

Q. 2)

iii)

A remaining address to lines A₃ to A₁₅ are connected to the 2 to 4 decoder.

The decoder is enable by A15 address line.



[illegible]

प्र. क्र.
Q. No.

iii)	Flag register of 8085 microprocessor.
------	---------------------------------------

- sign flag (s) (अधिकारपदत्त स्वायत्त)

A flag execution of any arithmetic and logical operation if the PF result is 1.

The sign flag is set ($sf=1$) and reset ($sf=0$)

- zero flag (Z)

If the result of arithmetic and logical operation is zero, then the zero flag is set ($Z=1$) otherwise the zero flag is cleared ($Z=0$).

- Auxiliary Flag (Ac)

when P_3 generates any carry using the
any arithmetic and logical operations this flag
is set ($AC=1$) otherwise reset ($AC=0$)



04

Section

Q. No.

Marks

प्र. क्र.
Q. No.

• Parity Flag (P)

when the result of arithmetic and logical operation contains the even number the reset will be ($P=0$) set ($P=1$) and when operation obtains the odd number is ($P=0$)

carry flag (CY) if any arithmetic and logical operation result any carry

(CY=1) (CY=0)

D₇D₆D₅D₄D₃D₂D₁D₀

S

Z

AC

P

CY

(अधिकारपदस्त स्थायन)
Flag register 8085



Name: Shree Yash Shinde



(अधिकारप्रदत्त स्वायत्त)
कोल्हापूर

VIVEKANAND COLLEGE, KOLHAPUR.
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SUPLIMENT

॥ ज्ञान, विज्ञान आणि सुसस्कार यासाठी शिक्षण प्रसार ॥

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4/10

Jr. Supervisor's Sign. :

Students Sign. :

Seat No. : 7759

Seat No. in words : Seven Seven five nine

Suppliment No. :

19714

Centre : U.C.C.

प्र. क्र.
Q. No.

Q1)

1) 8085 is a bit microprocessor

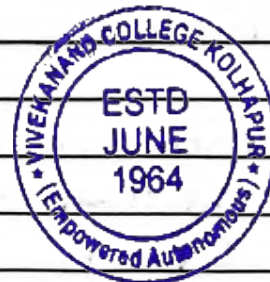
→ [b] 8

(अधिकारप्रदत्त स्वायत्त)

कोल्हापूर

2) is a memory pointer register

→ [c] PC



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39238

Shri Swami Vivekanand Shikshan Sanstha Kolhapur's

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)**SUPPLIMENT**Signature
of
Supervisor

Suppliment No. :

Roll No. : 7712

Class : BSC SY

Subject : Principle of Electronic
Communication.

Test / Tutorial No. :

Div. :

Q. 1

1) B) Half duplex

2) B) at receiver only



Q. 2]

① Noise : 'Noise is simply unwanted noise.' Noise is a unwanted signal in the wanted signal which disturbs whole communication medium. It is interruption in a wanted signal.

② Internal noise is said to be noise produced by electronic system in communication.

③ Mainly noise have three types :

1) Manmade noise

2) Natural noise

3) Space noise

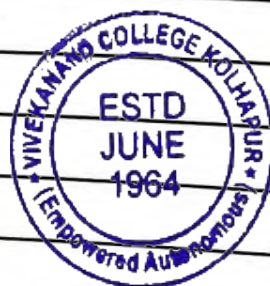
④ Manmade noise : Manmade noise produces from various mechanical equipment in ~~our~~ our daily use or in industrial sectors, like, railways, high speed jets, horns of ~~motor~~ cars etc.

⑤ Natural noise : Natural noise produces by same of natural disasters, etc. It is actually the high frequency sound produced by natural species or nature. Measurable changes can produce this type of noise in nature.

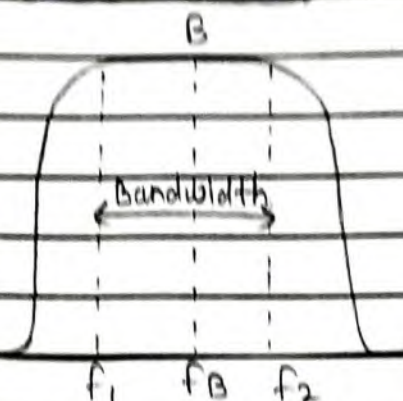
⑥ Space noise : It define as sounds or noise produces in space or outer space. The noise produced by sun is called solar noise. The frequency of solar noise gets higher ~~in~~ after every 11 years period.

③ a) Bandwidth :

Bandwidth refers to frequencies over a communication channels.

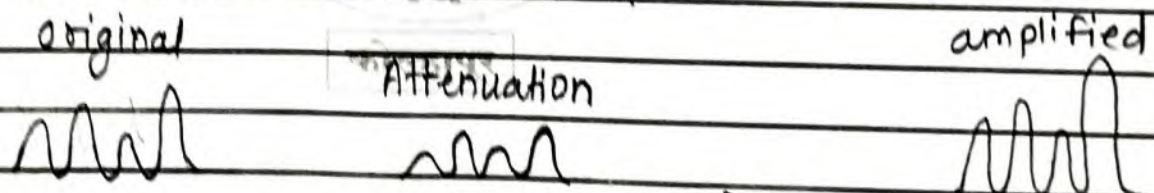


$$f_B = f_2 - f_1$$



b) Gain : The profit of something or in electronics communication increased strength of signal. example - After ~~apm~~ amplification process we get strong signal of more strength so in the process signal gain strength.

c) Attenuation : Attenuation refers to the loss of strength of signal while propagation of signal ~~receiver~~ ~~to~~ transmitter to receiver.



d) Broadband signal : It is ~~des~~ described as signal with short range but strong frequency signal. because it is have strong frequency network over short range

Samruddhi Koushik Patwar

01
10 2

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39239

Shri Swami Vivekanand Shikshan Sanstha Kolhapur's

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)

SUPPLIMENT

Signature
of
Supervisor

Suppliment No. :

Roll No. : 7713

Class : Bsc - II

Subject: Principles of electronic communication.

Test / Tutorial No. :-

Div. :-

Q. 1] i) Communication through walky-talky is a

ii) for successful communications, amplification of signal is required.

Q. 2]

i) Noise - noise can be defined as an unwanted signals arise during the transmission of data from sender to receiver. It can arise due to various factors both internal and external.



Name : Samruddhi Satya Dixit

॥ ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षण प्रसार ॥

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39240

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Signature
of
Supervisor

Suppliment No. :

Roll No. : 7714

Class : BSc - SY

Subject : Electronics (Principles of Electronic
Communication)

Test / Tutorial No. :

Div. :

Q1)

1) Communication through walky-talky is a half duplex.

→ b) Half duplex.

2) For successful communications, amplification of signal is required at transmitter only

→ a) at transmitter only.

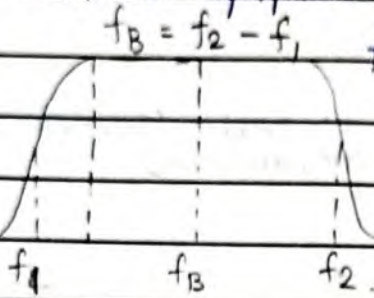
c) both at transmitter & receiver



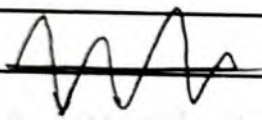
Q2)

3)

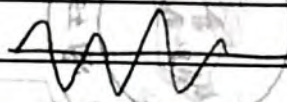
→ a) Bandwidth : The bandwidth of a signal defines as the frequency range over which an equipment operates. Different frequencies or frequency ranges have different bandwidth. It can also be said it is the freq. range over which one half cycle power of the signal.



b) Attenuation : The loss of strength of the signal through which while propagating through communication medium is known as attenuation.



Original
signal



attenuated
signal

c) Broadband signal : Broadband communication or Broadband signal simply defines as high-frequency, short-distance transmission of data by different resources of frequency range.

d) Gain : Gain of a signal can be defined as the signal after transmission or amplification.

Q2]

1)

⇒ Noise : Noise can be defined as an unwanted signal arise during the transmission of data from ~~the~~ sender to receiver. It can arise due to various factors both internal and external taking into account the circumstances.

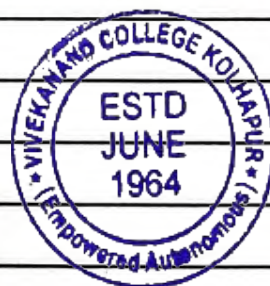
One of the types of noise experienced during the transmission of data is internal noise.

Internal noise : The unwanted sounds we can get due to damage or glitch in the system or electronic components on the part of the sender is called as Internal Noise.

Types of Internal Noise :

- g) Thermal Noise / Johnson Noise : Thermal Noise can arise due to ~~to~~ excessive heating of electronic parts of the system. This type of excessive heating can occur either because of overuse or load of the signal that need to ^{be} passed.

कोल्हापूर



Name: Koustubh Bhaskar Kumbhakar.



॥ ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षण प्रसार ॥

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8/10

VIVEKANAND COLLEGE, KOLHAPUR

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Assignment

Student's Sign : Koustubh

Seat No./ Roll No. : 7766

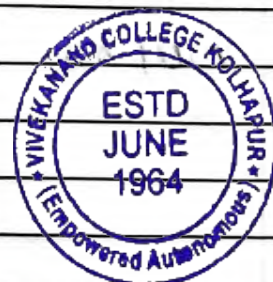
Seat No./ Roll No. Seven seven
In words Six six

06216

Q.1 i वा 4

प्र. क्र. ii b 1-128 to 127
Q. No.

- Q.2
- 8 bit CPU optimization for control application
 - 4KB of on-chip program memory (RAM)
 - 128 byte of on chip program memory (ROM)
 - 4 Register bank
 - two 16-bit of timer/counter
 - on-chip oscillator and a clock circuit.
 - duplex series transmitter / receiver
 - 64 bytes programmable external memory
 - 64 bytes programmable external memory.
 - 64 bytes external memory ability.



02	Section	Q. No.																		
		Marks																		

प्र. क्र.
Q. No.

2] Adding

~~ADD A, Rn~~

$R_n + A \rightarrow A$

~~$A \leftarrow A + R_n$~~

The content of Register

~~A1~~

R_n Added content

ADD A, Rn

$R_n + A \rightarrow A$

ADD A, Rn

of Register A and

the result store

in A

2] Increment

INCA, Rn

$R_n + 1 \rightarrow A$

INCA, Rn

The content of Register

R_n increment by

the one and the

result store in A

3] Decrement

DEC A, Rn

$R_n - 1 \rightarrow A$

DEC A, Rn

The content of Register

R_n decrement by

the one and the

result store in A

4] Multiple

MUL AB

$A \times B \rightarrow A(0-7)$
 $B(0-7)$

MUL AB

The content of Register

A and B multiplying

and the result

store in A and B



Name: Apurva Dilip Lokhande.



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- शिक्षणमहर्षी डॉ. बापूजी साळुंखे

7/10

VIVEKANAND COLLEGE, KOLHAPUR

(An Empowered Autonomous Institute)

Assignment

Student's Sign : Alokhande

Seat No./ Roll No. : 7767

Seat No./ Roll No. seven seven
In words Six seven

06217

प्र. क्र.

Q. No.

Q. 1

i) 8051 has _____ number of I/O 8 bit ports.

→ c) 16

ii) The range of short jump instruction is _____

→ b) -128 to 127

Q. 2

i) Features of 8051.

1) 4 KB of on-chip program memory (ROM)

2) 128 bytes of on-chip data memory (RAM).

3) 4 register bank.

4) Two 16-bit of timer/counter.

5) on-chip oscillator and a clock circuits.

6) 8 bit CPU optimization for control application.



Pratikraj Jaykumar Malange.



॥ ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षण प्रसार ॥

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06218

प्र. क्र.

Q. No.

Q1]

i] c] 16

ii] b] - 128 to 127

Q2]

i] features of 8051.

1] 8 bit CPU optimized for control application

2] two 16-bit timer

3] 4-register banks

4] 4KB of on-chip program memory (ROM)

5] full duplex serial data transmitter/receiver

6] 128 bytes of on-chip data memory

7] 8-bit program status word

8] on-chip oscillator and a clock circuit



