Vivekanand College, Kolhapur

(Empowered Autonomous Institute)

Department of Electronics

Internal Examination Notice

Date: 25.09.2025

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

Paper Code	Section Title	Marks	Date	Time
DSC03ELE51	Fundamentals of Instrumentation	10	Monday, 29/09/2025	11:30am-12.30pm.
DSC03ELE52	8051 Embedded Systems	10		01:00pm-02.00pm.
DSC03ELE53	Antenna and Wave Propagation	10	Tuesday, 30/09/2025	11:30am-12.30pm.
DSE03ELE51	Programmable Logic Controller(PLC)	10		01:00pm-02.00pm.

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

(Dr. C. B. Patil)

HEAD
DEPARTMENT OF ELECTRONICS
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur

(Empowered Autonomous Institute)

Department of Electronics

Internal Examination Notice

Date: 29.09.2025

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

Paper Code	Section Title	Marks	Date	Time
MIN03ELE51	Fundamentals of Internet of Things	10	Friday, 03/10/2025	11:30am-12.30pm.

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VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)
B.Sc. III Electronics Internal Exam 2025-26
SEM-V, Attendance sheet

Sr. No.	PRN	ROLL NO	Student Name	Date: 29/09/2025		Date: 30/09/2025	
				DSC03ELE51	DSC03ELE52	DSC03ELE53	DSE03ELE54
1	2023037250	8246	ATHANE SHREYA DEEPAK	SDAthane	SDAthane	SDAthane	SDAthane
2	2023037257	8247	KHOPKAR PRATAMESH BABASAHEB				
3	2023037260	8452	NIGADE RUPESH MOHAN	Rnigade	Rnigade	Rnigade	Rnigade
4	2020037107	8453	DEVEKAR VINAYAK DATTATRAYA				
5	2023037253	8454	KAMBLE PRAJWAL KIRAN				
6	2023037258	8455	MAHTO SURAJKUMAR SUBHASH	Suraj	Suraj	Suraj	Suraj
7		8462	DESAI AKANKSHA ANIL				

Teacher Incharge 1 | Teacher Incharge 2 | Teacher Incharge 3 | Teacher Incharge 4

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Vivekanand College, Kolhapur
(An Empowered Autonomous Institute)

B.Sc. III (SEM-V) Minor Electronics
Internal Exam Attendance Sheet 2025-26

Sr. No.	PRN	Roll No	Student Name	Date: 04/10/2025 MIN03ELE51
1	2023037353	8250	CHARANKAR SHARVARI SANJAY	Charankar
2	2023037354	8251	CHOUGALE SAKSHI SANTOSH	
3	2023037352	8252	CHOUGULE SWEJAL AMAR	
4	2023037284	8253	GAIKWAD URVEE UMESH	
5	2023037273	8254	GURAV SAHIL SAMIR	
6	2023037281	8255	KADAM PRITIKA SURESH	
7	2023037264	8256	KAMBLE SAKSHI SAGAR	
8	2023037265	8257	KANDALE AMRUTA ANANDRAO	
9	2023037266	8258	KANUGADE ANUSHKA SHIVLING	
10	2023037341	8259	LAHIGADE PARTH SAGAR	
11	2023037267	8260	MACHALE OMKAR SANGRAM	
12	2023037268	8261	MANE SATVIK VIKAS	
13	2023037269	8262	MNGOLI HANNAH DARWIN	
14	2023037342	8263	MORBALE VAISHNAVI PARSHRAM	
15	2023037270	8264	PATIL BHAKTI SAMBHAJI	
16	2023037343	8265	PATIL MADHURA ANANDA	
17	2023037344	8266	PATIL SANIKA DAGADU	
18	2023037272	8267	PATIL TEJAS POPAT	
19	2023037347	8268	PATIL UTKARSHA NITIN	
20	2023037274	8269	PATIL VIRAJ UTTAM	
21	2023037275	8270	PEDANEKAR SHIVAJI SATAPPA	
22	2023037349	8271	POWAR SANIKA ASHOK	
23	2023037350	8272	SAMRAT ALLI ASHRAF	
24	2023037351	8273	SANKPAL ARATI BABAN	
25	2023037276	8274	SUTAR MANISHA BAJARANG	
26	2023037277	8275	SUTHAR MAINA OMPRAKASH	

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

Sr. No.	PRN	Roll No	Student Name	Date: 04/10/2025 MIN03ELE51
27	2023037278	8276	TELEKE NITASI SULU	
28	2023037279	8277	TORASKAR SHRADDHA SUBHASH	
29	2023037282	8278	VAGRE ROHAN SANJAY	
30	2023037355	8279	VEER SNEHAL DILIP	
31	2023037345	8435	KHOT VAIBHAV ANNASO	
32	2023037223	8440	LAD AALOK BAJARANG	
33	2023037348	8459	MUJAWAR SALIL SIKANDAR	
34	~~2023037314~~	~~8460~~	~~BHOSALE RAJLAXMI UDAYSINH~~	
35]		8238	Samrat S. Kamble	
36]		8440	Alok B. Lad	
37]		8248	Nashra Abdullah Attar	
		8249	Namrata Narayan Birje	N.N.Birje

Teacher Incharge

Dr. P. S. Jadhav

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VIVEKANAND COLLEGE, KOLHAPUR
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B.Sc. Part-III (Electronics) (Sem-V)
Internal Examination Sept-2025
Course Code: DSC03ELE51
Fundamentals of Instrumentation

Day: Monday | **Time:11.30 AM to 12.30 PM**
Date: 29/09/2025 | **Marks: 10 Marks**

Q.1). Select the correct alternative (1 mark each) **(02)**

i. _____ errors are major mistakes caused by human carelessness or misunderstanding.

a) Random
b) Systematic
c) Gross
d) Regular

ii. Output impedance of a source is equal to the input impedance of a load is called as _____

a) Impedance loading
b) Impedance Matching
c) Impedance
d) Impedance Mismatch

Q.3) Attempt any two (4 marks each) **(08)**

i. Describe Static Characteristics of Instrument (Any four).
ii. Explain the Types of Standards used to measure an instrument.
iii. Write a short note on Calibration.
iv. What are types of Measurement Errors? Explain in short.

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VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

Vivekanand College, Kolhapur

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Internal Examination (2025-26)

B.Sc. III Electronics Semester – V, Paper – X: DSC03ELE52

8051 Embedded Systems

Date: 29-09-2025

Total Marks: 10 **Time: 1 hour**

Q.1: Select correct alternative: **[2]**

i. Data range for ***int*** data type is .....

A) -32768 to +32767 B) -128 to +127

C) 0 to 65535 D) 0 to 255

ii. To send data to LCD, the signal on the pins should be .....

A) RS=1, R/W=1 B) RS=1, R/W=0

C) RS=0, R/W=1 D) RS=0, R/W=0

Q.2: Answer any TWO [4 marks each] **[8]**

i. Tabulate various Data types in 8051-C.

ii. Interface single seven segment display with 8051 and write 8051-C program to display the digits 0 to 9 continuously.

iii. Write an 8051-C to generate a square wave on port P1 using timer delay

Vivekanand College, Kolhapur

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Internal Examination 2025-26

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

Paper-XI: DSC03ELE53

Course Name: Antenna and Wave Propagation

Date: 30/09/2025

Marks: 10

Q.1) Select most correct alternatives for the following (one mark each) **[2 Marks]**

1. ---------- of an antenna refers to the orientation of the electric field radiated from it.

   A) Radiation B) Beamwidth
   C) Bandwidth D) Polarization

2. Input impedance of an antenna is the ratio of the ---------- at a pair of terminals

   A) current to resistance B) voltage to resistance
   C) Current to voltage D) voltage to current

Q.2) Attempt any TWO (Four marks each) **[8 Marks]**

1. Explain the radiation pattern and radiation lobes of antenna.
2. Explain the Current distribution on thin wire antenna.
3. Explain the following terms with respect to antenna.
   a. Directivity.
   b. Radiation resistance

----------**********----------

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Seat No.	

Ques. paper code	

VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

B.Sc. Part- III (Electronics) (Sem-VI) Internal Examination: ~~Oct~~ Sept -2025

Course Code: DSC03ELE51

Programmable Logic Controller

Day:

Date: 29/09/2025

Time: 2.00 pm to 02.30 am

Marks : 10

Q. 1. Select correct alternative **[2]**

1. In Open-loop control systems are-------- stable.
   A. More
   B. Less
   C. Moderate
   D. none of these

2. Feedback loop system is also called as ----------system.
   A. Closed-loop
   B. Open-loop
   C. Adaptive
   D. Feed forward

Q.2. Attempt any Two **[8]**

1. Differentiate open loop control system and closed loop control system.
2. Write a note on feed forward control system.
3. Write a note on multi-position control system.
4. Write a short not on classification of control system.

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

B.Sc.-III, Sem-V, Internal Examination (2025-26)

Course Name: Fundamental of Internet of Things (IoT) **Course Code: MIN03ELE51**

Date: 04/10/2025 **Time: 11.30 am to 12.30 pm**

Q.1.Select the correct alternative **(2M)**

1. What is IoT?
   a) network of physical objects embedded with sensors b) network of virtual objects
   c) network of objects in the ring structure d) network of sensors
2. UDP and TCP are called _____ protocols:
   a) network b) transport c) session d) application

Q.2.Attempt any Two **(4*2=8M)**

1. Explain IoT device with diagram
2. Explain IoT functional block
3. Explain IoT communication module (any one)

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

Name - Rajiwal Kisan Kamble.

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

(अधिकारप्रदत्त स्वायत्त)
कोल्हापूर

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(Empowered Autonomous)

SUPPLIMENT

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Students Sign. : Kamble	
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Seat No. in words : Eight, Four, Five, Four.	
Suppliment No. :	
	30615
Centre	VCK

4/6

प्र. क्र. Q. No.

Q. 1:

i) Data range for int data type is -32768 to +32767.

ii) To send data to L.C.D, the signal on the pins should be RS = 1, RW = 0.

Q. 2:

1. Tabulate various Data types in 8051-C

→ Data type & Enumerated C.

Data types	~~logic~~ Size.	data range
bit	1 bit	
char / signed char	1 byte	
unsigned char	1 byte	-128 to +127
int signed int	2 byte	~~0 to 255~~ ~~-32768 to +32767~~
unsigned int	2 byte	0 to 65535
short int / signed	2 byte	
unsigned short int	2 byte	
long int	4 byte	
unsigned long int	4 byte	

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02	Section	Q. No.												
		Marks												

प्र. क्र.
Q. No.

float	4 bytes
sbit	1 bit
sfr	1 byte
code	N/A
data	N/A
idata	N/A
xdata	N/A
pdata	N/A

COLLEGE ESTD. JUNE 1964 JAIPUR

02	Section	Q. No.												
		Marks												

प्र. क्र.
Q. No.

float	4 bytes
sbit	1 bit
sfr	1 byte
code	N/A
data	N/A
idata	N/A
x data	N/A
P data	N/A
	~~N/A~~

COLLEGE ESTD. JUNE 1964 Autonomous

विवेकानंद कॉलेज
(अधिकारप्रदत्त स्वायत्त)
कोल्हापूर

Section	Q. No.													03
	Marks													

प्र. क्र.
Q. No.

3

→ • TMOD = x01 – Timer a is generate ~~wave~~ Configrate mod 1

• TH0 2 TL0 values are loaded To ms delay.

• delay - ms makes 500 ms on + 500 ms off square wave on P1.

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

Name :- Surajkumar . S. Mahto. Roll :- 8455

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

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Centre	V.C.K Kolhapur

4/10

प्र. क्र.
Q. No.

Q1.) Select correct alternative:

1.) In open-loop control systems are ___ stable.
=> (a.) More

2.) Feedback loop system is also called as ___
=> (a.) Closed-loop.

1

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02 Section | Q. No. | Marks

प्र. क्र.
Q. No.

Q2.) Attempt any two:

3.) Write a short note on ~~classification of~~ feed forward?

=> Feed forward control system is a type of control system that takes preemptive action to counter disturbance before they impact the system output by using a model of the process.

1

- Disturbance Measurement
- Prediction and calculation
- Preemptive adjusment.

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4.) Write a note on multi-position control system?

=> A ~~mulmulti~~-position control system is a type of ON-OFF controller that provides more than ~~two~~ distinct controller output, typically three or more. Unlike simple ON-OFF control which oscillate betw two state or multi position controller offers immediate output level based on magnitude of the error between the desired and actual value.

2

Shreya Deepak Almane.

3/10

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

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Centre	v.c.k

प्र. क्र.
Q. No.

Q 1

3. Polarization of an antenna refers to the orientation of the electric field radiated from it.

1

4. Input impedance of an antenna is the ratio of the voltage to current at a pair of terminals.

1

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02 Section	Q. No.												
	Marks												

प्र. क्र.
Q. No.

Q2

(6.)

Directivity - The ratio of maximum rational intensity given direction from antenna to radiation intensity averaged overall direction

3

Radiation resistance -

Radiation resistance is the equivalent resistance that would dessipiate same amount of power as antenna radiates into space of power radiated by antenna.

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प्र. क्र.
Q. No.

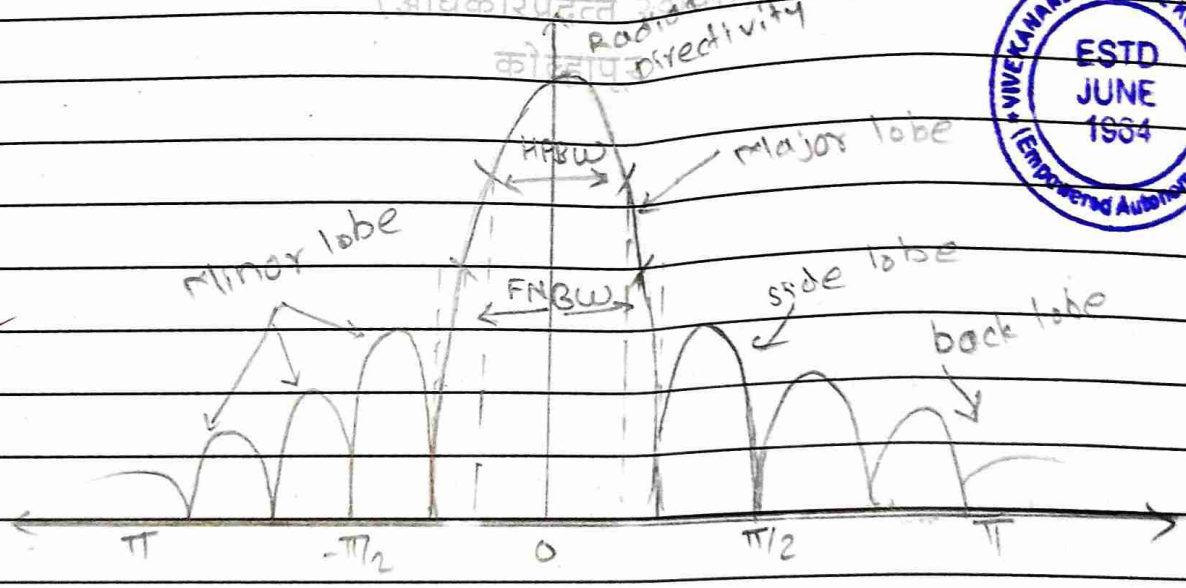
Q2 (1) major lobe - The radiation loop containing direction of maximum radiation

Minor lobe - The radition undired radiation direction they should minimized

HPBW - The angular separation in which magnitude of radiation pattern decreases by 50% from peak of main beam

FNBW - The angular span betn 1st pattern ~~loop~~ nulls adjacent main lobe

4



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04	Section	Q. No.													
		Marks													

प्र. क्र.
Q. No.

Radiation pattern –
Mathematical funⁿ or graphical representation of the radiation properties of antenna funⁿ of space coordinates

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(अधिकारप्रदत्त स्वायत्त)
कोल्हापूर

Maina Omprakash Sutar

Internal Examination in Fundamentals of IoT (MINOBELES1)

॥ ज्ञान, विज्ञान आणि सुंसस्कार यासाठी शिक्षण प्रसार ॥

– शिक्षणमहर्षी डॉ. बापूजी साळुंखे

(अधिकारप्रदत्त स्वायत्त)
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Centre	Vivekanand college

06/10

प्र. क्र. Q. No.

Q.1.

1. a. networks of physical objects embedded with sensors.

2. b. transport.

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02 Section	Q. No.												
	Marks												

प्र. क्र.
Q. No.

Q.2.

1. IOT (Internet of technology)

- Internet of things is a network of physical objects, things, entities embedded with electronic sensors, actuators and technologies to connect and transfer the network from one to other.
- IOT is the transfer of network between "objects" here, the objects means any real world thing through which we can connect technology.

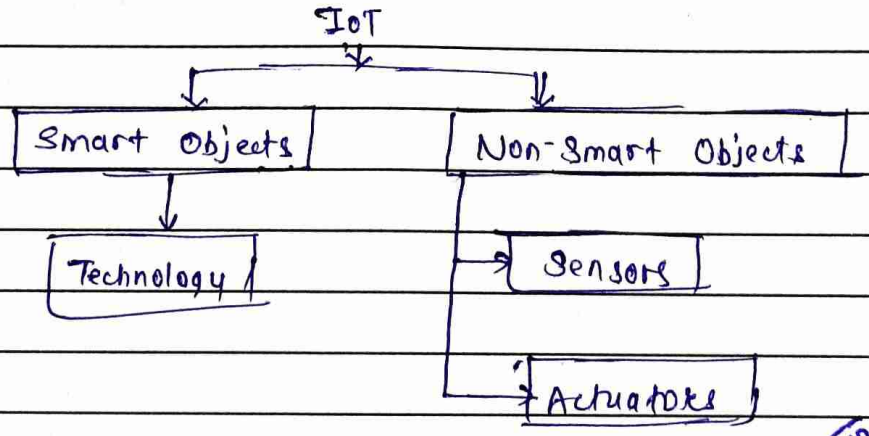
02

- There are two types of connections in IOT.
  1. Machine to human (M2H)
  2. Machine to machine (M2M)

- IOT is used in ~~vee~~ almost all the fields like, health care, cities, agriculture, education, etc to make the world smart.

01

- ~~IT~~



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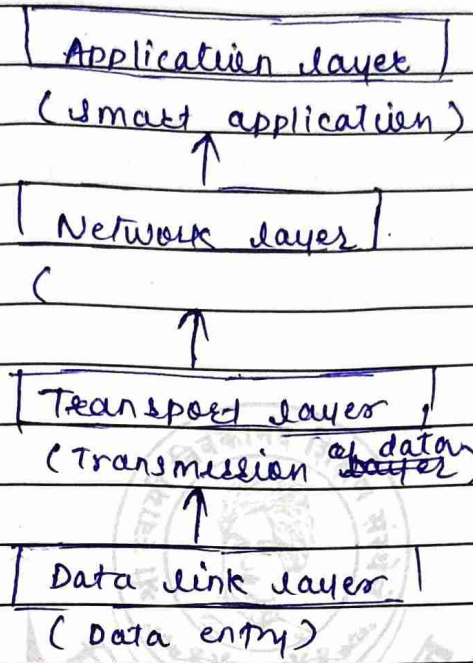
02

Section	Q. No.													03
	Marks													

प्र. क्र.
Q. No.

Q.2.

2. IoT Functional blocks.



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1. Data Link Layer.
First block is data link layer which is used to collect the data or the data entrance of IoT device.

2. Transport layer
Second is the transport layer which is connected with the data link layer. This block is used to transfer the data ~~from~~ which is collected from data link layer.

3. Network layer
Third layer is the network layer which is used to ~~the~~ provide the data, data analysis. Network layer is connected to the transport layer.

04	Section	Q. No.												
		Marks												

प्र. क्र.
Q. No.

4. Application layer-
Forth and uppermost layer is application layer which provides the user friendly interfaces. This layer is used by the end users. This layer shows the smart application which users can use easily.

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