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

Date: 12.10.2023

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	Section title	Marks	Date	Time
DSE 1005E1 Section-I	Fundamentals of Instrumentation	15	18/10/2023	11.30 am to 12.20 pm
DSE 1005E1 Section-II	8051 Microcontroller Interfacing	15	19/10/2023	11.30 am to 12.20 pm
DSE 1005E2 Section-I	Antenna and Wave Propagation	15	20/10/2023	11.30 am to 12.20 pm
DSE 1005E2 Section-II	Industrial Process Control	15	21/10/2023	11.30 am to 12.20 pm

Question Paper format:

Q.1 Select correct alternative

3*1 mark = 3 Marks

Q.2 Short answer questions: (Solve any THREE out of FOUR)

3*4 mark = 12 Marks




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Seat No.

Ques. paper code

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
B.Sc. Part- III (Electronics) (Sem-V) Internal Examination: April -2023 .
Course Code: DSE – 1005E1
Section - I: Fundamental of Instrumentation

Day:

Time: 11.30 am to 12.30 pm

Date: 18/10/2024

Marks : 15

Q.1) Select Correct Alternative.

03

- i) For construction of DC Ammeter a _____ is connected in parallel with PMMC.
a) Resistor b) Spring c) Coil d) Magnet
- ii) In Calibration the instrument which is calibrated is known as _____ instrument.
a) Sensor b) Standard c) Test d) none of these
- iii) In Energy meter the moving disc measures power consumption in _____.
a) Watts b) Kilowatt hours c) revolution per min. d) none of these

Q.2) Attempt any Three.

12

- 1) What is Standard? Explain its types in short.
- 2) Compare Moving Coil and Moving Iron type Instrument.
- 3) Explain RMS and TRMS concept.
- 4) Explain Series type of Ohmmeter.



Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur (Empowered Autonomous)
Class: B.Sc.-III, Semester-V, Internal Examination (2023-24)

Paper code: DSE-1005E1

Section II: 8051 Microcontroller Interfacing and Embedded C

Date:-19/10/2023

Time: 11:30pm to 12:20pm

Marks: 15

Q. 1 Select correct alternative for the following:

[3 x 1 = 3]

- i. Data range for signed char data type is
A) 0 to 255 B) -128 to +127 C) 0 to 65535 D) -32768 to +32767
- ii. The output of Thumbwheel switch is inform.
A) Octal B) BCD C) Hex D) ASCII
- iii. Super loop/s in 8051 C is/are
A) for(; ;) B) while(1) C) if-else D) both (a) and (b)

Q. Solve any THREE:

[3 x 4 = 12]

- i. Mention the advantages of embedded-C over Assembly language. Tabulate various Data types in 8051-C
- ii. Write an 8051-C program to toggle bits of P1 continuously forever with 250mS delay. (Delay function should be using *for* loops)
- iii. Write an 8051-C program to generate delay of 5mS at port pin P1.5 using timer delay in mode 1. Assume $f=11.0592\text{MHz}$.
- iv. Draw an interfacing diagram of LED with 8051 and write 8051-C program to blink Led with certain time interval.
- v. Interface single seven segment display with 8051 and write 8051-C program to display the digits 0 to 9 continuously.

Vivekanand College, Kolhapur

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

Internal Examination Oct 2023

Course Code: DSE - 1005 E2

Section-I: Antenna and Wave Propagation

Date: 20/10/2023

Marks: 15

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

[3 Marks]

1. ----- transmitting or receiving system that is designed to radiate or receive electromagnetic waves.
A) Electron gun
B) Oscilloscope
C) Antenna
D) None of the mentioned
2. ----- is the nature of radiation pattern of an isotropic antenna
A) Spherical
B) Dough-nut
C) Elliptical
D) Hyperbolic
3. 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 Three (Four marks each)

[12 Marks]

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



Seat No.

Ques. paper code

VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
B.Sc. Part- III (Electronics) (Sem-VI) Internal Examination: October -2023
Course Code: DSE – 1005E2

Section - II: Industrial process control and PLC programming

Day: Monday

Time: 11.30 am to 12.30 pm

Date: 21/10/2023

Marks : 15

Q. 1. A) Select correct alternative

[2]

1. Sprinkler is a example of ----- system.
 - A. Closed-loop
 - B. Open-loop
 - C. Adaptive
 - D. Feed forward
2. Feedback loop system is also called as -----system.
 - A. Closed-loop
 - B. Open-loop
 - C. Adaptive
 - D. Feed forward
3. In Open-loop control systems are----- stable.
 - A. More
 - B. Less
 - C. Moderate
 - D. none of these

Q.2. Attempt any Three

[12]

1. Write a note on feed forward control system.
2. Discuss open loop control system and closed loop control system.
3. Write a note on multi-position control system.
4. Explain Proportional, Derivative and PI control system

