

No. 1051


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

**Date: 02.03.2024**

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

Paper	Section title	Marks	Date	Time
DSE 1005F1	Industrial Instrumentation	15	<del>21</del> -03-2024	11:30am-12.30pm
DSE 1005F2	Advanced Microcontroller	15	<del>21</del> -03-2024	02:00pm-3.00pm
DSE 1005F3	Power Electronics	15	<del>22</del> -03-2024	11:30am-12.30pm
DSE 1005F4	Internet of Things (IoT)	15	<del>22</del> -03-2024	02:00pm-3.00pm



  
(Dr. C. B. Patil)

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

**VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)**

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

Internal Examination March-2024

Course Code: DSE – 1005F1

Industrial Instrumentation

Date: 21/03/2024

Marks: 15 Marks

**Q.1) Select the correct alternative (one mark each) (03)**

- i) In single channel DAS \_\_\_\_\_ is not required.  
a) Transducer      b) Multiplexer      c) ADC      d) DAC
- ii) \_\_\_\_\_ filter has flat pass band as well as stop band.  
a) Butterworth      b) Chebyshev      c) Bessel      d) none of these
- iii) \_\_\_\_\_ converter is called a Trans-conductance Amplifier.  
a) V to V      b) I to V      c) I to I      d) V to I

**Q.3) Attempt any three (4 marks each) (12)**

- 1) What is Data Logger? List its Characteristics.
- 2) List advantages of Active Filter over passive filter.
- 3) Explain I to V convertor using Op-Amp.
- 4) Explain Sample-Hold circuit.



Shree Swami Vivekanand Shikshan Sanstha's  
**VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)**

Class: B.Sc.-III, Semester-VI, March-2024

Course code: DSE1005F2

Subject: Advanced Microcontroller

Time: 02.00 pm to 03:00 pm

Marks: 15

Date:-21/03/2024

[3M]

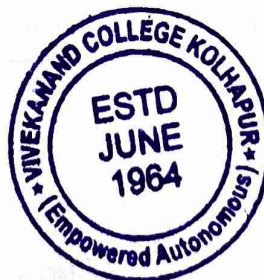
**Q.1. Select the Correct alternative**

1. Embedded system is combination of \_\_\_\_\_
  - a) hardware and software
  - b) software
  - c) hardware
  - d) none of these
2. The ATmega 8 is having \_\_\_\_\_ general purpose 8-bit
  - a) 12
  - b) 32
  - c) 40
  - d) 22
3. Microwave oven is example of \_\_\_\_\_
  - a) open system
  - b) VLSI system
  - c) both a) and b)
  - d) embedded system

[12 M]

**Q.2 .Attempt any Three (Four mark each)**

1. Give the applications of embedded systems
2. Give the hardware architecture of embedded system
3. Give features of AVR AT mega 8 features
4. Explain the pin diagram of ATmega 8.







**Vivekanand College; Kolhapur (Empowered Autonomous)**  
B.Sc. Part-III (Electronics) (Sem-VI)  
Internal Examination March-2024  
Course Code: DSE – 1005 F3  
Internet of Things (IoT)

Date: 22/03/2024

Marks: 15 Marks

**Q.1) Select correct alternative (One mark each)**

**(03)**

- i) \_\_\_\_\_ of IoT refer to IoT devices and IoT protocol.  
a) Wires      b) Physical design      c) Resistance      d) none of these
- ii) \_\_\_\_\_ is a numerical label assigned to each device connected to a computer network.  
a) IP address      b) MAC address      c) http      d) none of these
- iii) User diagram protocol (UDP) is \_\_\_\_\_ protocol  
a) Transfer      b) network      c) application      d) none of these

**Q.3) Attempt any three (4 marks each)**

**(12)**

- i. What is mean by IoT?
- ii. Explain the architecture of IoT.
- iii. Explain the different link layer protocols.
- iv. Describe IoT dives with block diagram.
- v. Explain construction and working of photo diode.

