

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2024
(Fourth Semester)

Branch – APPLIED ELECTRONICS

MAJOR ELECTIVE COURSE – II: INDUSTRY STANDARD 5.0

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Which country government introduced the Industry 4.0 concept?
i) USA ii) France iii) Germany iv) Great Britain
- 2 Which one among the following is NOT associated with the White Revolution in India?
i) Norman Borlaug ii) Dr. Verghese Kurien
iii) Anand iv) More than one of the above
- 3 Find the Debian-based OS which has 2 virtual machines and focuses on reserving users data?
i) Ubuntu ii) Fedora iii) Whonix iv) Kubuntu
- 4 When was the actual term “Internet of Things” coined?
i) 1998 ii) 1999 iii) 2000 iv) 2002
- 5 Which of the following is typically the cheapest type of 3D printer?
i) FDM ii) SLA iii) Powder-based iv) SLM

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a. Determine the Industrial 4.0 revolution.
OR
b. Discuss the Characteristics of Industrial 4.0.
- 7 a. Discuss the challenges in Industry 5.0.
OR
b. Compare Industry 4.0 and Industry 5.0.
- 8 a. Discuss the components in Cyber security.
OR
b. Justify the Risk in cyber security.

Cont ...

- 9 a. Prepare the short notes on IIoT.
OR
b. Discuss about Big data analytics.
- 10 a. Explain the concept of Digital Twin.
OR
b. State the principles and Techniques of 3D printing.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a. Describe the evolution and key components of industry 4.0
OR
b. Analyze the components and Technologies of Industry 4.0.
- 12 a. Develop the product life cycle management in Industry 5.0.
OR
b. Survey the Evolution of Industry 5.0 and develop Human Centric.
- 13 a. Construct the Physical and Virtual system in cyber security.
OR
b. Elucidate the privacy and ethical considerations.
- 14 a. Write the application of IoT in Manufacturing.
OR
b. Explain the main components of the IoT architecture.
- 15 a. Explain in details about cognitive computing.
OR
b. Discuss the Benefits and Challenges of Digital Twin technology.

Z-Z-Z

END