22ELP424AN

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2025
(Fourth Semester)

Branch – **APPLIED ELECTRONICS**

MAJOR ELECTIVE COURSE – II: INSDUSTRY STANDARD 5.0

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	The First Industrial Revolution was brought in by what technology? a) Steam Power b) Electricity and Mass Production c) Computers and Semiconductors d) Agrarian Riots and Starvation	K1	CO1
	2	Which one of the industrial revolutions used electric energy to create mass production for the first time? a) 1st Industrial Revolution b) 2nd Industrial Revolution c) 3rd Industrial Revolution d) 4th Industrial Revolution	K2	CO1
2	3	Industry 5.0, it is defined by _____ critical pillars a) 5 b) 6 c) 7 d) 9	K1	CO2
	4	Embracing Industry 5.0 brings enduring benefits that align with its core values. This includes improved talent attraction and _____ a) retention b) data c) money d) all the above	K2	CO2
3	5	The main objectives of cyber security are to protect the confidentiality, _____, and availability of information and systems. a) integrity b) sharing c) open d) saucing	K1	CO3
	6	What does cyber security protect? a) Cyber security protects criminals b) Cyber security protects internet-connected systems c) Cyber security protects hackers d) None of the mentioned	K2	CO3
4	7	Which of the following is not an IoT platform? a) Amazon Web Services b) Microsoft Azure c) Salesforce d) Flipkart	K1	CO4
	8	Which of the following is not an application of IoT? a) BMP280 b) Smart home c) Smart city d) Self-driven cars	K2	CO4
5	9	Which of the following is typically the most expensive type of 3D printer? a) SLA b) SLM c) FDM d) None of the above	K1	CO5
	10	Which type of printer uses an enclosed build area? a) SLA b) SLS c) MDS d) FDM	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the industrial revolution of industry 4.0.	K2	CO1
		(OR)		
	11.b.	Illustrate the characteristics and principle of industry 4.0.		
2	12.a.	Identify the product life cycle management of industry 5.0.	K3	CO2
		(OR)		
	12.b.	Explain the technology and principles of industry 5.0.		
3	13.a.	Identify the components of cyber security.	K3	CO3
		(OR)		
	13.b.	Write the privacy and ethical considerations of cyber security.		
4	14.a.	Categorize the applications of IoT in manufacturing.	K4	CO4
		(OR)		
	14.b.	Conclude the AI quality control and optimization in detail.		
5	15.a.	Write the principle and technology of 3D printing.	K4	CO5
		(OR)		
	15.b.	List out the cognitive computing applications and demerits.		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Analyze the components and technology of industry 4.0	K4	CO1
2	17	Categorize the challenges and issues of industry 5.0	K4	CO2
3	18	Discover the components of cyber security and write its merits.	K4	CO3
4	19	Conclude the sensor network and data collection in detail.	K5	CO4
5	20	Evaluate virtual reality and augmented reality with examples.	K5	CO5

Z-Z-Z END