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22ELP424AN

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2025
(Fourth Semester)

Branch – **APPLIED ELECTRONICS**

MAJOR ELECTIVE COURSE – II INDUSTRY 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	When Industry 4.0 starts? a) 2007 b) 2010 c) 2013 d) 2016	K1	CO1
	2	Which country government introduced the Industry 4.0 concept? a) United States of America b) France c) Germany d) Great Bretain	K2	CO1
2	3	Attracting talented workforce and retaining them is increasingly challenging for---------- a) House b) companies c) area d) data	K1	CO2
	4	Industry 5.0's enabling technologies is--------- a) network b) wire c) coaxial d) Block chain	K2	CO2
3	5	Which of the following is a type of cyber security? a) Cloud Security b) Network Security c) Application Security d) All of the above	K1	CO3
	6	Which of the following is not a cybercrime? a) Denial of Service b) Man in the Middle c) Malware d) AES	K2	CO3
4	7	Which of the following is used to capture data from the physical world in IoT devices? a) Sensors b) Actuators c) Microprocessors d) Microcontrollers	K1	CO4
	8	Which layer is used for wireless connection in IoT devices? a) Application layer b) Network layer c) Data link layer d) Transport layer	K2	CO4
5	9	SLA printer's package material is in a------- a) Chain b) Spool c) Cartridge d) None of the above	K1	CO5
	10	What material is not used in 3D printing? a) Nylon b) ABS c) PLA d) PVC	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.	Write the principles of industry 4.0?	K2	CO1
		(OR)		
	11.b.	Illustrate the industrial revolution of industry 4.0.		
2	12.a.	Develop the product life cycle management in detail.	K3	CO2
		(OR)		
	12.b.	Identify the challenges and issues of industry 5.0.		
3	13.a.	State the various risks in cyber security.	K3	CO3
		(OR)		
	13.b.	Classify the components of cyber security.		
4	14.a.	Define about big data and analytics.	K4	CO4
		(OR)		
	14.b.	Conclude about Artificial intelligence and machine learning		
5	15.a.	Categorize the application of 3D printing and write its demerits.	K4	CO5
		(OR)		
	15.b.	Write the functions of cognitive computing.		

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	Examine the evolution of industry 4.0 and write its applications.	K4	CO1
2	17	Explain the Key technologies and principles of industry 5.0.	K4	CO2
3	18	Classify the privacy and ethical considerations in detail.	K4	CO3
4	19	Categorize the AI techniques for quality control and optimization.	K4	CO4
5	20	Formulate the benefits and challenges of digital twin technology.	K4	CO5

Z-Z-Z END