

SYBCA SEM-4

402-IOT (Internet of Things)

Unit: 3 Sensors and Actuators in IoT

No	Questions	A	B	C	D
1	_____ are the types of actuators	Mechanical actuators	Electrical, thermal actuators	Hydraulic, pneumatic actuators	All of the above
2	_____ enables production-ready feature to the spring boot application.	a) Actuators	b) Endpoint	c) Boot	d) Hyper media
3	Analog sensors generate _____ analog kind of output signals.	Discrete	Continuous	Both a and b	None
4	How many pins does temperature sensor have?	5 legs	2 legs	4 legs	3 legs
5	The computer devices and smart phones that have _____ with pressure sensor.	Industrial	Touch screen	Aviation	Automotive Industry
6	Which of the following devices is used to measure the gases or liquid?	Optical Sensor	Gas Sensor	Smoke Sensor	Pressure sensor
7	Which of the following is not a sensor in IoT?	BMP280	LED	Photoresistor	DHT11
8	Which of the following is used to capture data from the physical world in IoT devices?	a) Sensors	b) Actuators	c) Microprocessors	d) Microcontrollers
9	_____ allows us to monitor the application.	a. Actuators	b. Endpoints	c. Boot	d. Hypermedia
	_____ accept command to perform function	Sensor	Actuators	Both a) and b)	None

11	_____ actuators are used in robotic and sensors.	Hydraulic	Numetic	Electrical	Mechanical
12	_____ are equipped with a motor	Electrical actuators	Engineering actuators	Sensor	Controller
13	_____ converts electrical signals into physical Characteristics. Sensor	Sensor	Actuators	Both of them	None of them
14	_____ are mechanical devices that perform specific movement based on commands.	actuators	sensors	Both	None of above
15	_____ can generate a large amount of force.	IR Sensor	Hydraulic Acutors	Moisture Sensor	Pneumatic Acutors
16	_____ converts physical characteristics into electrical signals	sensors	actuators	both a) and b)	None
17	_____ is an example of an actuator	Calculator	Servo Motor	Thermometer	Fire Detector
18	_____ is placed at the input port of IOT System and _____ is placed at the output port of IOT System.	Sensors , Actuators	Actuators, Sensors	Motors, Objects	Sensors, Objects
19	_____ - sensor measures temperature heating.	temperature sensor	air sensor	glass sensor	Both A and B
20	_____ use motors for converting the energy into linear movement	Electrical Actuators	Pneumatic Actuators	Water Level Sensors	Thermal Actuators
21	_____ enables production-ready feature to the spring boot application.	Actuators	Endpoint	Boot	Hyper media
22	_____ generates heat or motion, flow ,etc	Sensors	Radars	Actuators	Objects
23	_____ is not a type of Humidity sensor	Resistive type	Capacitive type	Combustive type	Thermal Conductive

24	_____ sensors is used for emitting and detecting Infrared radiation.	Water level	Fire Detector	Sound	IR
25	A tends to convert physical attribute to an electrical signal.	actuator	compiler	sensor	motors
26	A _____ is thermally sensitive resistor that exhibits a large change in resistance.	Thermistor	Semiconductor based sensor	Resistance Thermometer	Thermo couple
27	A _____ actuator uses hydraulic power to perform a mechanical operation.	Pneumatic	Electrical	Hydraulic	Mechanical
28	A _____ actuator uses energy formed by vacuum or compressed air at high pressure to convert into either linear or rotary motion.	Hydraulic	Magnetic	Mechanical	Pneumatic
29	A crankshaft is an example of actuators.	Hydraulic	Numetic	Mechanical	Thurmal
30	A temperature sensor is provided with _____ as input.	Sound	Air	Temperature	Liquid
31	Actuator is a components of a _____ that is responsible for moving or controlling a mechanism or system.	Machine	Sensor	Technology	None
32	An _____ sensor is an electronic device that measures and detects infrared radiation in its surrounding environment.	Temperature	Water Level	Infrared	Humidity
33	An _____ is an electronic device that measures the distance of a target object.	Water level sensor	Ultrasonic sensor	Temprature Sensor	Light Sensor
34	An electric actuator uses _____ energy.	Heat	Electrical	Compressed air	None of the above
35	An electronic actuator is a _____ based electronic bell.	Soleloid	valves	mehanical actuators	None of the above

36	Are sensors used along with other electronic devices?	Yes	No	May be	
37	Based upon what parameters sensors will be chosen_ _ _ _ _	Environmental factors	Economic factor	Static characteristics	All the above
38	Change in output of sensor with change in input is _____	Threshold	Slow rate	Sensitivity	None of the mentioned
39	DHT11 is _____ sensors	Light	Smoke	Water level	Temperature and Humidity
41	DHT22 sensor is used to sense:	Obstacles	Resistance	Position	Humidity
42	Digital sensor (Select suitable option)	Binary (0 - 1)	10 bit (0 - 1023)	Never require power supply	All of above
43	Electric motor protection has which sensor?	Pressure sensor	Touch sensor	Temperature sensor	Humidity sensor
44	Flame sensor is used to _____	To detect Oxygen	To measure distance between sensor and object	To measure heat of room	To measure intensity of light
45	Full form of RTD is	Resistive Temperature Device	Resistive Touchscreen Device	Resistive Temperature Duration	None
46	How many logic signals are there in the SPI protocol?	Five signals	Six signals	Nine signals	Zero signals
	How many USB ports are present in Raspberry Pi 3?	5	2	4	3
48	How power supply is done to RPi?	USB connection	Internal battery	Charger	Adapter
49	Humidity sensors are classified into	Capacitive Type	Resistive Type	Thermal Conductive Type	All of the above

50	Humidity sensors are divided into how many types and depending on what?	3 types depending on measurement units	3 types depending on output	2 types depending on measurement units	2 types depending on output
51	In LDR sensor, if the intensity of light applied is less, its resistance value becomes _____	Less	High	Zero	Infinity
52	IR in IR sensor stands for _____	Infra Red sensor	Interior sensor	Internal red sensor	All the above
53	LDR sensor is abbreviated as _____.	Light Dependent Resistor	Light determinant Resistor	Luminous Duplicated Resistor	None of the above
54	Light Sensors known as	Photo Sensor	Fire Sensor	Gas Sensor	None
55	Microphone is an example of	Gas Sensor	Weight sensor	Sound sensor	None of above
56	More than one sensor can be bundled in one device	TRUE	FALSE	BOTH	NONE
57	MSMA stands for _____	Memory Shape Megnatic Alloy	Maganetic Shape Memory Alloy	Maganetic System Memory Alloy	None of above
58	Physical object + Controller + Sensor + Actuator+ _____=IOT	Internet	Intranet	Information	Object
59	Pneumatic actuators uses _____ as a source of energy.	fluid	compressed air	electric power	none of the above
60	Sensor effectiveness depends on _____ parameters.	Sensitivity / change	Radiation	Restively	None of the above
61	Sensor is a _____ device.	input	output	both input & output	either input or output not both
62	Sensor is a type of transducer.	TRUE	FALSE	None	None

63	Sensors convert signal from analog to _____ domain.	Digital	electrical	mechanical	none of the above
64	Sensors generate an output signal in terms of _____	electrical form / signal	optical form / signal	Both A and B	None of the above
65	Sensors provides output signals depending on _____.	Input	Physical	Both A and B	None of the above
66	Shape memory alloys are models used by which type of actuators ?h type of actuators ?	Hydraulic actuators	Mechanical actuators	Thurmol maganetic actuators	Numetic actuators
67	The _____ converts various forms of environmental energy into electrical signals.	sensors	actuators	WSN	cloud
68	The _____ sensors generate the output of discrete time digital representation of a quantity being measured, in the form of output signals or voltages.	digital	analog	active	passive
69	The Amount of Water Present in Surrounding air is measured by which Sensor	Actuator	Humidity Sensor	Temperature Sensor	IR Sensor
70	The Control system acts upon an environment through _____	Sensor	Machine	Actuator	All of the above
71	The more correct a senor can measure, the more _____ it is:	Accurate	Precise	Scaled	Extent
72	The optimization objectives of routing includes _____	Minimizing the latency	Minimizing the energy	Satisfying the constraints	All of the above
73	The output obtained from the temperature sensor is of _____ form	Current	Voltage	Both a and b	None of the above
74	The rack and pinion is an example of a _____ actuator	Electrical actuator	Mechanical actuator	Hydraulic actuator	All of the above

75	The smallest change which a sensor can detect is termed:	Accuracy	Precision	Resolution	Scale
76	Touch screen of mobile phone uses:	AFR Sensor	Pellistor	Viscometer	Tactile sensors
77	Ultrasonic sensor is used to _____	To detect Oxygen	To measure distance between sensor and object	To measure heat of room	To measure intensity of light
	What is another name for I2C?	Signal wire interface	USART	UART	Two wire interfaces
79	What is DS18B20?	Pressure sensor	sensor	Humidity sensor	Touch sensor
80	What is ESP8266?	USB cable	Board	Sensor	WIFI module
81	What is humidity sensor?	Hygrometer	Gyroscope	Sesimoscope	Sundial
82	What is the default user in Debian on Raspberry Pi?	Default	User	Pi	Root
83	What is the equation of IoT?	Physical object + compiler+ intranet	Physical object only	Physical object + controller + sensors + actuators + Internet	Physical object + controller
84	What is the full form of ICT?	Inter Connect Technology	Internet Connection Topology	Information and Communication Technology	Infer Communication Topology
85	What is the use of the IR Sensor?	Object Detection	Humidity Detection	Image Processing	GPS
86	Which _____ sensors resistance value varies with respect to light intensity?	LDR	Photosensitive	Bio	All of the above

87	Which actuator can cause fluid leakage?	Hydraulic	Electrical	Numetic	Mechanical
88	Which actuator is used in solenoid based electric bell?	Mechanical	Magnetic	Hydraulic	Electrical
89	Which actuators convert energy in the form of compressed air into mechanical motion?	Pneumatic Actuators	Hydraulic Actuators	Electrical Actuators	Thermal Actuators
	Which Acuator need low maintenance, are durable, and have a long operational life?	Pneumatic	Electric	Hydraulic	Mechanic
91	Which device produces less noise and is safe to use since there are no fluid leakages?	Sensor	Acuator	IOT Protocol	None of these
92	Which devices measures gases or liquid?	Touch sensor	Temperature sensor	Proximity sensor	Pressure sensor
	Which devices that are used to manipulate the physical environment, such as the temperature control valves used in smart homes.	Sensor	Acuator	IPv4	Wifi
94	Which of the following are the characteristics of a good sensor?	High sensitive to measured property	Insensitive to other application property	Zero influence of measured property	All the above
	Which of the following are the components used allow with the sound sensor _____.	Micro controler	Micro phone	Amplifier	All of the above
96	Which of the following consists of two different metals connected at two points?	Thermistor	Resistance Thermometer	Thermocouple	Semiconductor based sensor
97	Which of the following detects light intensity	LDR	FSR	Ultrasonic Sensor	None of the above

98	which of the following device is also called as a photodetector	IR Sensor	Ultrasonic Sensor	Light Sensor	Pressure Sensor
99	Which of the following is a type of Actuator?	IR	Fire Detector	Sound	Hydraulic
100	Which of the following is able to detect applied force	LDR	FSR	Ultrasonic Sensor	None of the above
101	Which of the following is an electronic device that measures the amount of water in the air and convert these measurements into signals that can be used as inputs to control or display devices?	Humidity Sensors	Gas and Chemical Sensors	Ultrasonic sensors	Sound sensors
102	Which of the following is an example of an electrical actuator?	Electrical Fan	DC Motor	Servo Motor	Above all
	Which of the following is consider as input to sensor ?	Micro controler	Processor	Both A and B	None of the above
104	Which of the following is not a character of a sensor of a sound wave?	Causes no health hazard	They are suitable in a harsh environment	They are only suitable in cold environment	They can be used in corrosive environment
105	Which of the following is not a sensor in IoT?	BMP280	DHT11	Photoresistor	LED
106	Which of the following is not an actuator in IoT?	Stepper motor	A fan	An LED	Arduino
108	Which of the following is the example of a short-range wireless network?	VPN	Wi-Fi	Internet	WWW
109	Which of the following is the type of SPI controller?	Micro-wire or plus	Microwire	Data SPI	Queued SPI
110	Which of the following is used to capture data from the physical world in IoT devices?	Sensors	Microcontroller s	Microprocessors	Actuators

111	Which of the following is/are actuator(s)?	Rotary Actuators	Hydraulic Actuators	Pneumatic Actuators.	All of these
112	Which of the following takes input from output conditioning unit of system?	actuator	compiler	sensor	MQT
113	Which of the following terms refers to the use of compressed gasses to drive (power) the robot	Pneumatic	Piezoelectric	Hydraulic	Photosensitive
114	Which of the following type of sensors required external power source to operate?	active	passive	both A & B	none of the above
115	Which one requires noise reduction equipment, heat exchangers, and high maintenance systems.	Pneumatic Acutors	Hydraulic Acutors	Temperature Sensor	Light Sensor
116	Which part of the robot provides motion to the manipulator and end-effector?	Controller	Senser	Actuator	(d)Processor
117	Which sensor is LM35?	Temperature sensor	Humidity sensor	Pressure sensor	Touch sensor
118	Which sensor is used to detect the level of substances that can flow?	water level sensor	Sound sensor	Gas Detector sensor	Humidity sensor
	Which sensor measure the water vapour?	Temperature Sensor	Water Sensor	Humidity Sensor	IR Sensor
120	Which sensor senses and measures the temperature and converts it into an electrical signal?	Temperature Sensor	Gas Detector Sensor	Humidity Sensor	Sound Sensor
121	Which sensors detects the gases in an area often as part of a safely system.	Gas Detector Sensor	IR Sensors	Temperature Sensor	None
122	Which type of actuators uses fluid as a source of energy?	Hydraulic	Pneumatic	Electric	Thermal or magnetic

123	Which type of sensor is used to measure the distance between the vehicle and other objects in its environment:	Ultrasonic sensor	Tactile sensor	Position	Humidity
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