

NIELIT M4-R5 O Level Model Paper With Solution| Gyancs

NIELIT M4-R5 O Level Model Paper

भाग-एक/PART ONE

सभी प्रश्नों के उत्तर दें (Answer all the questions)

Q.1. नीचे प्रत्येक प्रश्न के उत्तर के कई विकल्प दिये गये हैं। एक सबसे उपयुक्त विकल्प चुनें और उसे प्रश्न-पत्र के साथ उपलब्ध कराए गए "ओएमआर" उत्तर-पत्रक में, उसके दिए गए निर्देशों के अनुसार दर्ज करें।
Each question below gives a multiple choice of answers. Choose the most appropriate one and enter in the "OMR" answer sheet supplied with the question paper, following instructions therein.

1.1. Which of the following is not a standard protocol used in IoT domain.

- (A) Wi-Fi
- (B) Z-wave
- (C) Zigbee
- (D) LoMe**

1.2. To easily interface add-on modules with Arduino we can use

- (A) General PCB
- (B) Connectivity circuit boards
- (C) Arduino Shields**
- (D) Other high-end Arduino boards

1.3. Botnet is often used to launch.....attack

- (A) DoS
- (B) DDoS**
- (C) Brute force
- (D) Passive

1.4. Which of the following is not a main element of IoT

- (A) People**
- (B) Process

(C) Security

(D) Things

1.5. With respect to the body language, the handshake conveys the confidence is

(A) Firm

(B) Limp

(C) Loose

(D) Incomplete knowledge

1.6. Which symbol is used in Arduino to calculate Modulo

(A) #

(B) \$

(C) %

(D)!

1.7. The IIoT stands for

(A) Indepth Internet of T

(B) Innovative Internet of Things

(C) Industrial Internet of Things

(D) Information Internet of Things

1.8. Which of the following communication medium supports highest data rate?

(A) Optical Fiber

(B) Wi-Fi

(C) Ethernet

(D) Bluetooth

1.9. Microcontroller used in Arduino UNO prototyping board is

(A) ATmega328m

(B) ATmega328p

(C) ATmega2560

(D) ATmega356p

1.10. The default method(s) in Arduino program is/are

(A) Only loop ()

(B) Only setup ()

(C) Setup () and loop ()

(D) Can be either loop () or setup ()

Q.2. नीचे दिया गया प्रत्येक विवरण या तो सही या गलत है। एक सबसे उपयुक्त विकल्प चुनें और अपना विकल्प प्रश्न-पत्र के साथ उपलब्ध कराए गए "ओएमआर" उत्तर-पत्रक में, उसमें दिए गए निर्देशों के अनुसार दर्ज

करें।

Each statement below is either TRUE or FALSE. Choose the most appropriate one and enter your choice in the “OMR” answer sheet supplied with the question paper, following instructions therein.

- 2.1. Mirai botnet attack was originated from IoT cameras. **F**
- 2.2. Microprocessor has only processing capability, no serial interface or interrupts are available. **T**
- 2.3. Ohms law calculates the power consumed by an electrical appliance. **T**
- 2.4. Arduino program statement for generating one second delay is – delay (100); **F**
- 2.5. IIoT targets applications related to health and fitness. **T**
- 2.6. Stress is an emotional reaction to physical and psychological demands. **F**
- 2.7. In ATmega328p, p stands for picoPower. **T**
- 2.8. Time management is primarily creating an environment conducive to effectiveness.
- 2.9. Capacitor blocks AC and allows DC to pass through. **F**
- 2.10. The total resistance of resistor is low when connected in series. **T**

Q.3. कालम 'X' में दिए गए शब्दों और वाक्यांशों को कालम 'Y' में दिए गए निकटतम जुड़े अर्थों/शब्दों/वाक्यांशों के साथ मिलाएं। प्रश्न पत्र के साथ संलग्न 'टीयर आफ' आंसर शीट पर दिए गए अनुदेशों के अनुसार अपने चयन किए गए उत्तर को लिखें।

Match words and phrases in column X with the closest related meaning of word(s)/phrase(s) in column Y. Enter your selection in the “OMR” answer sheet supplied with the question paper, following instructions therein.

	X		Y
3.1	Function called once in Arduino program (E)	A.	Windows
3.2	Analog Write method in Arduino UNO accepts value range (J)	B.	Linux
3.3	Program written in Arduino IDE (K)	C.	//

3.4	Analog Read method in Arduino UNO returns value range (F)	D.	6
3.5	Default boot loader for Arduino (G)	E.	Setup()
3.6	Open source Operating System (B)	F.	0-1023
3.7	The term 'IoT' was coined in (I)	G.	Optiboot
3.8	Single line comment (C)	H.	Grapevine
3.9	Informal Communication (H)	I.	1999
3.10	PWM pins in Arduino UNO (D)	J.	0-255
		K.	Sketch

Q.4. नीचे दिए गए प्रत्येक विवरण में नीचे दी गई सूची में दर्शाए गए शब्दों अथवा वाक्यांशों को खाली स्थानों पर भरें। चुने गए उत्तर को प्रश्न पत्र के साथ संलग्न टियर ऑफ आंसर शीट पर दिए गए अनुदेशों के अनुसार प्रविष्ट करें।

Each statement below has a blank space to fit one of the word(s) or phrase(s) in the list below. Choose the most appropriate option; enter your choice in the "OMR" answer sheet supplied with the question paper, following instructions therein.

A	Fog Computing	B	Mask	C	Lilypad
D	Massimo Banzi	E	Analog	F	Microprocessor
G	Kevin Ashton	H	Report	I	Mirai
J	PWM	K	Nano	L	Microcontroller

4.1C...board of Arduino family can be used to sewn into clothing

4.2 The term Internet of Things was first coined by....G.....

4.3 Analog Write method is used for....J...pins in Arduino.

4.4 Modern PC has...F...as main component in CPU.

4.5I...is designed to launch botnet attacks from IoT.

4.6 The founder of Arduino project is...D.....

4.7 ...A...is medium weighted extension of cloud computing in IoT domain.

4.8 The statement describing what has happened is called...

H....

4.9 ...L...IC contains memory, input-output peripherals along with processing capability.

4.10 Personality is derived from Latin word – persona meaning....**B...**

भाग दो/PART TWO

5. Briefly explain the following (Any three):

- (a) Microcontroller
- (b) OSI Model
- (c) Stress management
- (d) Etiquettes & manners
- (e) Botnet

6.

- (a) Explain the different functional blocks in a IoT ecosystem?
- (b) Discuss the role of digital, analog and PWM pin in Arduino UNO?

7.

- (a) What are Things in IoT domain? what is meant by connected things.
- (b) Write a C program to depict an IoT uses where LED is switched ON once the button is pressed and released and next time button is pressed and released, the LED is switched OFF

8.

- (a) What are the determinants of personality? Explain motivation and self-esteem in detail.
- (b) Write a C program to interface DHT sensor and LED. The program will switch ON LED once the temperature rises above 25 degrees?

9.

- (a) What is a sensor? Explain its working with example.

(b) What are the different communication modes available to connect things in an IoT domain?

(c) What is the role of setup method in an Arduino program?

Chapter wise Model Paper Link