



QUIZ

Started on	Sunday, 25 February 2024, 12:16 AM
State	Finished
Completed on	Sunday, 25 February 2024, 12:22 AM
Time taken	5 mins 50 secs
Grade	15.00 out of 15.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

A system that integrates several types of power sources, (wind-turbines, hydro, photovoltaics, and batteries) to give a reliable overall power supply is termed as?

- ☐ a. Micro Grid
- ☐ b. Traditional Grid
- ☐ c. Macro Grid
- ☒ d. Virtual Power Plant ✓

Question 2

Correct

Mark 1.00 out of 1.00

If your computer indicates an IP address in the 169.254.x.x block, it means that ...

- ☐ a. Most likely, the DNS server isn't working
- ☐ b. Most likely, a virus blocks the Internet access
- ☒ c. Most likely, the DHCP server isn't working ✓
- ☐ d. Most likely, the Internet provider disabled the Internet

Question 3

Correct

Mark 1.00 out of 1.00

Select three wireless technologies from the list below.

- ☒ a. Satellite ✓
- ☐ b. Fiber Optic
- ☒ c. Cognitive Radio ✓
- ☒ d. Cellular ✓
- ☐ e. Powerline Communication

Question 4

Correct

Mark 1.00 out of 1.00

What is Raspberry Pi?

- ☐ a. It is the Arduino shield
- ☒ b. It is a series of credit card-sized single-board computers developed in Wales, United Kingdom by the Raspberry Pi Foundation with the intention of promoting the teaching of basic computer science in schools and developing countries ✓
- ☐ c. It is an IoT protocol
- ☐ d. It is a software app for Arduino IDE

Question 5

Correct

Mark 1.00 out of 1.00

You need to identify the moving people. What sensor will you use?

- ☐ a. Tilt sensor
- ☒ b. Passive Infrared sensor ✓
- ☐ c. Light sensor
- ☐ d. Light-emitting diode

Question 6

Correct

Mark 1.00 out of 1.00

Is the demand management part of Smart Grids?

Select one:

- ☒ True ✓
- ☐ False

Question 7

Correct

Mark 1.00 out of 1.00

A localized grouping of electricity generations, energy storages, and loads is termed as?

- ☐ a. Traditional Grid
- ☐ b. Macro Grid
- ☒ c. Micro Grid ✓
- ☐ d. Virtual Power Plant

Question 8

Correct

Mark 1.00 out of 1.00

Who are the main stakeholders in Smart Grid? Select four answers you think are correct.

- ☐ a. Political Parties
- ☒ b. Policy Makers ✓
- ☒ c. Workforce ✓
- ☒ d. Environmental Groups ✓
- ☐ e. Ministry of Education
- ☒ f. Consumers ✓

Question 9

Correct

Mark 1.00 out of 1.00

What is a virtual power plant (VPP)?

- ☐ a. It is the network of physical objects or "things" embedded with electronics, software, sensors, and connectivity to enable objects to exchange data with the production, operator, and/or other connected devices based on the infrastructure of the International Telecommunication Union's Global Standards Initiative
- ☐ b. It is a software development methodology, which is intended to improve software quality and responsiveness to changing customer requirements. As a type of agile software development, it advocates frequent "releases" in short development cycles, which is intended to improve productivity and introduce checkpoints where new customer requirements can be adopted.
- ☒ c. It is a system that integrates several types of power sources, (such as solar panels, wind-turbines, small hydro, biogas, batteries, etc.) so as to give a reliable overall power supply. ✓
- ☐ d. It is a cross-platform application written in Java

Question 10

Correct

Mark 1.00 out of 1.00

How to manage demand on a smart grid network? Select three answers you think are correct.

- ☒ a. Shifting demand to another time or day ✓
- ☐ b. Use excessive energy
- ☒ c. Reducing Consumption ✓
- ☒ d. Rescheduling usage ✓

Question 11

Correct

Mark 1.00 out of 1.00

You need to identify the subnet mask for the network addresses. What standard program/command will you use?

- ☐ a. nbtstat
- ☐ b. nslookup
- ☒ c. ipconfig ✓
- ☐ d. arp

Question 12

Correct

Mark 1.00 out of 1.00

Select 3 approaches for demand management from the list below.

- ☒ a. Set prices based on time and level of use ✓
- ☐ b. Set the prices very low so everyone can afford low power
- ☒ c. Use dynamic pricing schemes as incentives to manage demand ✓
- ☒ d. Optimize buildings energy consumption using control algorithms ✓

Question 13

Correct

Mark 1.00 out of 1.00

Sensors can be used for the following purposes in Smart Grids:

- ☐ a. Diagnose imminent as well as permanent faults
- ☐ b. Real-time mechanical and electrical conditions of power lines
- ☐ c. Detect mechanical failures, tower collapses, extreme mechanical conditions
- ☒ d. All answers are correct ✓

Question 14

Correct

Mark 1.00 out of 1.00

You need to identify the default gateway for the local network. What standard program/command will you use?

- ☐ a. arp
- ☐ b. nbtstat
- ☒ c. ipconfig ✓
- ☐ d. nslookup

Question 15

Correct

Mark 1.00 out of 1.00

What is the Google Sunroof Project?

- ☐ a. It is a software development methodology, which is intended to improve software quality and responsiveness to changing customer requirements. As a type of agile software development, it advocates frequent "releases" in short development cycles, which is intended to improve productivity and introduce checkpoints where new customer requirements can be adopted.
- ☐ b. It is a system that integrates several types of power sources, (such as solar panels, wind-turbines, small hydro, biogas, batteries, etc.) so as to give a reliable overall power supply
- ☐ c. It is a series of credit card-sized single-board computers developed in Wales, United Kingdom by the Raspberry Pi Foundation with the intention of promoting the teaching of basic computer science in schools and developing countries
- ☒ d. It is a solar power initiative started by Google engineer Carl Elkin. The initiative's stated purpose is "mapping the planet's solar potential, one roof at a time." ✓