

National Testing Agency

Question Paper Name :	Awareness Programme on Solar Water Pumping System 28th August 2021 Shift 1
Subject Name :	Awareness Programme on Solar Water Pumping System
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Awareness Programme on Solar Water Pumping System

Group Number :	1
Group Id :	603489151
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100
Is this Group for Examiner? :	No

Awareness Programme on Solar Water Pumping System-1

Section Id :	603489215
Section Number :	1
Section type :	Online

Mandatory or Optional :	Mandatory
Number of Questions :	20
Number of Questions to be attempted :	20
Section Marks :	20
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	603489429
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 60348911531 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The main source of all forms of energy on the earth is _____.

1. Sun
2. Mechanical
3. Electrical
4. Wood

Options :

60348943791. 1

60348943792. 2

60348943793. 3

60348943794. 4

Question Number : 2 Question Id : 60348911532 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Cost of PV Module is the major contributor towards the total _____ of Solar PV system.

1. Operational cost
2. Capital cost
3. Opportunity cost
4. All of them

Options :

60348943795. 1

60348943796. 2

60348943797. 3

60348943798. 4

Question Number : 3 Question Id : 60348911533 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In drip irrigation, water is applied _____ the crop root zone.

1. Near
2. Away
3. Both 1 and 2
4. None of Them

Options :

60348943799. 1

60348943800. 2

60348943801. 3

60348943802. 4

Question Number : 4 Question Id : 60348911534 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The amount of solar energy available at a particular location on the earth's surface is also known as _____.

1. Wind Energy
2. Thermal energy
3. Insolation
4. Hydro-electrical energy

Options :

60348943803. 1

60348943804. 2

60348943805. 3

60348943806. 4

Question Number : 5 Question Id : 60348911535 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

_____ of diesel power is considerably high when compared to hydro-electricity.

1. Capital cost
2. Initial cost
3. Operational cost
4. All of them

Options :

60348943807. 1

60348943808. 2

60348943809. 3

60348943810. 4

Question Number : 6 Question Id : 60348911536 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Functions of solar cooker are_____.

1. Concentrate sunlight
2. Trap heat
3. Convert light to heat
4. All of them

Options :

60348943811. 1

60348943812. 2

60348943813. 3

60348943814. 4

Question Number : 7 Question Id : 60348911537 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Furrow method of irrigation is used to crops grown on _____.

1. Flat fields
2. Beds
3. Ridges
4. All of them

Options :

60348943815. 1

60348943816. 2

60348943817. 3

60348943818. 4

Question Number : 8 Question Id : 60348911538 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Cloud cover significantly affects the _____ power production.

1. Solar
2. Electrical
3. Mechanical
4. None of Them

Options :

60348943819. 1

60348943820. 2

60348943821. 3

60348943822. 4

Question Number : 9 Question Id : 60348911539 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

_____ is the most commonly used material in present day PV technology.

1. Polymer silicon
2. Crystalline silicon
3. Organic silicon
4. None of them

Options :

60348943823. 1

60348943824. 2

60348943825. 3

60348943826. 4

**Question Number : 10 Question Id : 60348911540 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No**

Correct Marks : 1 Wrong Marks : 0

A mechanical device used for lifting of water is known as _____.

1. Water pump
2. Controller
3. PV module
4. All of them

Options :

60348943827. 1

60348943828. 2

60348943829. 3

60348943830. 4

**Question Number : 11 Question Id : 60348911541 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No**

Correct Marks : 1 Wrong Marks : 0

An angle with reference to the prime meridian is known as_____.

1. Latitude
2. Longitude
3. Earth's tilt
4. None of Them

Options :

60348943831. 1

60348943832. 2

60348943833. 3

60348943834. 4

Question Number : 12 Question Id : 60348911542 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A Solar cell is a _____ junction semiconductor device.

1. c-d
2. a-b
3. p-n
4. x-y

Options :

60348943835. 1

60348943836. 2

60348943837. 3

60348943838. 4

Question Number : 13 Question Id : 60348911543 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

_____ pumps do not require priming.

1. Submersible
2. Centrifugal pumps
3. Positive displacement pumps
4. All of them

Options :

60348943839. 1

60348943840. 2

60348943841. 3

60348943842. 4

Question Number : 14 Question Id : 60348911544 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The _____ optimises the power output from the PV array.

1. Pump controller
2. Motor
3. PV Solar array
4. None of Them

Options :

60348943843. 1

60348943844. 2

60348943845. 3

60348943846. 4

Question Number : 15 Question Id : 60348911545 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The number of _____ connected in parallel generates the required current.

1. Impellers
2. PV Modules
3. Controllers
4. None of Them

Options :

60348943847. 1

60348943848. 2

60348943849. 3

60348943850. 4

Question Number : 16 Question Id : 60348911546 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Mount the pump controller _____ a shelter or make a sheet-metal shade.

1. Inside
2. Outside
3. Anywhere
4. None of Them

Options :

60348943851. 1

60348943852. 2

60348943853. 3

60348943854. 4

Question Number : 17 Question Id : 60348911547 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A proper manual tracking arrangement can _____ the output by 20%.

1. Increase
2. Decrease
3. Reduce
4. None of the Them

Options :

60348943855. 1

60348943856. 2

60348943857. 3

60348943858. 4

**Question Number : 18 Question Id : 60348911548 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No**

Correct Marks : 1 Wrong Marks : 0

The performance and life of the motor can be affected if _____ run dry.

1. Pump
2. Controller
3. Motor
4. All of them

Options :

60348943859. 1

60348943860. 2

60348943861. 3

60348943862. 4

**Question Number : 19 Question Id : 60348911549 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No**

Correct Marks : 1 Wrong Marks : 0

Normally, pump leakage is _____ within the range of 2 to 60 drops per minute.

1. Allowable
2. Not allowable
3. Not recommended
4. None of Them

Options :

60348943863. 1

60348943864. 2

60348943865. 3

60348943866. 4

Question Number : 20 Question Id : 60348911550 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Multistage pumps are used to lift water from _____ depth.

1. Lower
2. Surface
3. Higher
4. None of Them

Options :

60348943867. 1

60348943868. 2

60348943869. 3

60348943870. 4

Awareness Programme on Solar Water Pumping System-2

Section Id : 603489216

Section Number : 2

Section type : Offline

Mandatory or Optional : Mandatory

Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	30
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	603489430
Question Shuffling Allowed :	No

Question Number : 21 Question Id : 60348911551 Question Type : SUBJECTIVE

Correct Marks : 3

Define solar energy.

Question Number : 22 Question Id : 60348911552 Question Type : SUBJECTIVE

Correct Marks : 3

What is irrigation?

Question Number : 23 Question Id : 60348911553 Question Type : SUBJECTIVE

Correct Marks : 3

What is solar cell?

Question Number : 24 Question Id : 60348911554 Question Type : SUBJECTIVE

Correct Marks : 3

Write short note on desalination.

Question Number : 25 Question Id : 60348911555 Question Type : SUBJECTIVE

Correct Marks : 3

What is a water pumping motor?

Question Number : 26 Question Id : 60348911556 Question Type : SUBJECTIVE

Correct Marks : 3

Write short note on centrifugal pump.

Question Number : 27 Question Id : 60348911557 Question Type : SUBJECTIVE

Correct Marks : 3

Explain preventive maintenance.

Question Number : 28 Question Id : 60348911558 Question Type : SUBJECTIVE

Correct Marks : 3

Define operation.

Question Number : 29 Question Id : 60348911559 Question Type : SUBJECTIVE

Correct Marks : 3

What is failure type 1 with respect to the solar PV water pumping system?

Question Number : 30 Question Id : 60348911560 Question Type : SUBJECTIVE

Correct Marks : 3

Describe surface pump.

Section Id :	603489217
Section Number :	3
Section type :	Offline
Mandatory or Optional :	Mandatory
Number of Questions :	7
Number of Questions to be attempted :	5
Section Marks :	50
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	603489431
Question Shuffling Allowed :	No

Question Number : 31 Question Id : 60348911561 Question Type : SUBJECTIVE

Correct Marks : 10

Describe the various factors influencing solar power production.

Question Number : 32 Question Id : 60348911562 Question Type : SUBJECTIVE

Correct Marks : 10

Describe different methods of irrigation.

Question Number : 33 Question Id : 60348911563 Question Type : SUBJECTIVE

Correct Marks : 10

Explain parallel connection with the help of a diagram.

Question Number : 34 Question Id : 60348911564 Question Type : SUBJECTIVE

Correct Marks : 10

Describe the initial checks that should be done before start of a solar PV water pumping system.

Question Number : 35 Question Id : 60348911565 Question Type : SUBJECTIVE

Correct Marks : 10

Describe the classification of Solar PV modules based on its manufacturing technology.

Question Number : 36 Question Id : 60348911566 Question Type : SUBJECTIVE

Correct Marks : 10

What is tracking? Discuss different precautions to be followed during tracking.

Question Number : 37 Question Id : 60348911567 Question Type : SUBJECTIVE

Correct Marks : 10

Discuss about the routine maintenance of a solar PV water pumping system.