

National Testing Agency

Question Paper Name :	Awareness Programme on Solar Water Pumping System 25th March 2021 Shift 1
Subject Name :	Awareness Programme on Solar Water Pumping System
Creation Date :	2021-03-25 13:44:15
Duration :	180
Number of Questions :	37
Total Marks :	100
Display Marks:	Yes

Awareness Programme on Solar Water Pumping System

Group Number :	1
Group Id :	86435184
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 :	864351478
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	20

Number of Questions to be attempted : 20
Section Marks : 20
Mark As Answered Required? : Yes
Sub-Section Number : 1
Sub-Section Id : 864351491
Question Shuffling Allowed : Yes

**Question Number : 1 Question Id : 8643517395 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

A Silicon solar cell of 6 inches can generate power up to _____Watts.

1. 2
2. 10
3. 5
4. 50

Options :

86435122401. 1
86435122402. 2
86435122403. 3
86435122404. 4

**Question Number : 2 Question Id : 8643517396 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

Cost of _____is the major contributor towards the total capital cost of Solar PV system.

1. Pump controller
2. PV Module
3. Water Pump
4. All of the above

Options :

86435122405. 1

86435122406. 2

86435122407. 3

86435122408. 4

Question Number : 3 Question Id : 8643517397 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The current flows from _____ terminal to _____ terminal of the Solar PV Module.

1. positive (+), negative (-)
2. negative (-), negative (-)
3. negative (-), positive (+)
4. positive(+), positive (+)

Options :

86435122409. 1

86435122410. 2

86435122411. 3

86435122412. 4

Question Number : 4 Question Id : 8643517398 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Direct solar energy is used for_____.

1. Water Heating
2. Drying
3. Distillation
4. All of the above

Options :

86435122413. 1

86435122414. 2

86435122415. 3

86435122416. 4

Question Number : 5 Question Id : 8643517399 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In drip irrigation, water application efficiency is _____%.

1. Less than 30
2. 50
3. Above 90
4. 70

Options :

- 86435122417. 1
- 86435122418. 2
- 86435122419. 3
- 86435122420. 4

Question Number : 6 Question Id : 8643517400 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Solar radiation for more than_____ days in a year is available in the countries located between tropic of Cancer and tropic of Capricorn.

1. 100
2. 300
3. 200
4. 400

Options :

- 86435122421. 1
- 86435122422. 2
- 86435122423. 3
- 86435122424. 4

Question Number : 7 Question Id : 8643517401 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Approximately solar energy absorbed by the land and the ocean is_____ %.

1. 30
2. 40
3. 51
4. 100

Options :

- 86435122425. 1
- 86435122426. 2
- 86435122427. 3
- 86435122428. 4

Question Number : 8 Question Id : 8643517402 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The solar PV Water Pumping System uses motor and a pump which are different from that of the _____ 50 Hz AC motor and pump.

1. Unconventional
2. Untraditional
3. Conventional
4. None of the above

Options :

- 86435122429. 1
- 86435122430. 2
- 86435122431. 3
- 86435122432. 4

Question Number : 9 Question Id : 8643517403 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In positive displacement pumps, flow rate remains _____ with a change in pressure.

1. Varying
2. Constant
3. Higher
4. Lower

Options :

- 86435122433. 1
- 86435122434. 2
- 86435122435. 3
- 86435122436. 4

Question Number : 10 Question Id : 8643517404 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Flow rate varies with a change in pressure in_____.

1. Centrifugal Pumps
2. Submersible Pumps
3. Positive Displacement Pumps
4. None of the above

Options :

- 86435122437. 1
- 86435122438. 2
- 86435122439. 3
- 86435122440. 4

Question Number : 11 Question Id : 8643517405 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Impeller is used to draw a vacuum at the _____ and send water out at pressure.

1. Inlet side
2. Outlet side
3. Both side
4. None of the above

Options :

- 86435122441. 1
- 86435122442. 2
- 86435122443. 3
- 86435122444. 4

Question Number : 12 Question Id : 8643517406 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Surface water pumps are best if depth of water is _____ meters or less from the surface located at or near the water surface.

1. 6
2. 10
3. 20
4. 15

Options :

- 86435122445. 1
- 86435122446. 2
- 86435122447. 3
- 86435122448. 4

Question Number : 13 Question Id : 8643517407 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Diesel operated water pumps emit large amount of _____.

1. Oxygen
2. Sulphur dioxide gas
3. Carbon dioxide gas
4. None of the above

Options :

86435122449. 1

86435122450. 2

86435122451. 3

86435122452. 4

Question Number : 14 Question Id : 8643517408 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The number of modules connected in series generates the required _____.

1. Voltage
2. Power
3. Current
4. All of the above

Options :

86435122453. 1

86435122454. 2

86435122455. 3

86435122456. 4

Question Number : 15 Question Id : 8643517409 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Place the pump controller closer to the PV Array to _____ DC cable losses.

1. Increase
2. Add
3. Avoid any
4. None of the above

Options :

86435122457. 1
86435122458. 2
86435122459. 3
86435122460. 4

Question Number : 16 Question Id : 8643517410 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

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

1. 10
2. 20
3. 30
4. 50

Options :

86435122461. 1
86435122462. 2
86435122463. 3
86435122464. 4

Question Number : 17 Question Id : 8643517411 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Solar panel surface should be cleaned using _____ clean cloth and water.

1. Rigid
2. Soft
3. Hard
4. None of the above

Options :

- 86435122465. 1
- 86435122466. 2
- 86435122467. 3
- 86435122468. 4

Question Number : 18 Question Id : 8643517412 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If the insulation is damaged, _____ the wire.

1. Not replace
2. Replace
3. Fix
4. None of the above

Options :

- 86435122469. 1
- 86435122470. 2
- 86435122471. 3
- 86435122472. 4

Question Number : 19 Question Id : 8643517413 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Normally, pump leakage is allowable within the range of _____ drops per minute.

1. 2 to 60
2. 10 to 100
3. 20 to 60
4. 10 to 50

Options :

86435122473. 1
86435122474. 2
86435122475. 3
86435122476. 4

Question Number : 20 Question Id : 8643517414 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Electrical connections of submersible pump have to be checked at least once in every _____ months.

1. Two
2. Six
3. Four
4. Twelve

Options :

86435122477. 1
86435122478. 2
86435122479. 3
86435122480. 4

Awareness Programme on Solar Water Pumping System-2

Section Id :

864351479

Section Number :

2

Section type :

Offline

Mandatory or Optional :	Mandatory
Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	30
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	864351492
Question Shuffling Allowed :	No

Question Number : 21 Question Id : 8643517415 Question Type : SUBJECTIVE
Correct Marks : 3

Write a short note on solar energy.

Question Number : 22 Question Id : 8643517416 Question Type : SUBJECTIVE
Correct Marks : 3

Describe solar dryer.

Question Number : 23 Question Id : 8643517417 Question Type : SUBJECTIVE
Correct Marks : 3

What is photovoltaic effect?

Question Number : 24 Question Id : 8643517418 Question Type : SUBJECTIVE
Correct Marks : 3

Write the advantages of Solar Energy.

Question Number : 25 Question Id : 8643517419 Question Type : SUBJECTIVE
Correct Marks : 3

What is Solar PV Module?

Question Number : 26 Question Id : 8643517420 Question Type : SUBJECTIVE
Correct Marks : 3

Write a short note on submersible pump.

Question Number : 27 Question Id : 8643517421 Question Type : SUBJECTIVE
Correct Marks : 3

Define Maintenance.

Question Number : 28 Question Id : 8643517422 Question Type : SUBJECTIVE
Correct Marks : 3

What is tracking?

Question Number : 29 Question Id : 8643517423 Question Type : SUBJECTIVE
Correct Marks : 3

What is safety?

Question Number : 30 Question Id : 8643517424 Question Type : SUBJECTIVE

Correct Marks : 3

What is failure type 2 with respect to the solar PV water pumping system?

Awareness Programme on Solar Water Pumping System-3

Section Id :	864351480
Section Number :	3
Section type :	Offline
Mandatory or Optional :	Mandatory
Number of Questions :	7
Number of Questions to be attempted :	5
Section Marks :	50
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	864351493
Question Shuffling Allowed :	No

Question Number : 31 Question Id : 8643517425 Question Type : SUBJECTIVE

Correct Marks : 10

Describe the movement of solar energy from atmosphere to the earth surface with the help of a diagram.

Question Number : 32 Question Id : 8643517426 Question Type : SUBJECTIVE

Correct Marks : 10

Discuss the process of production of solar electricity.

Question Number : 33 Question Id : 8643517427 Question Type : SUBJECTIVE

Correct Marks : 10

Explain series connection with the help of a diagram.

Question Number : 34 Question Id : 8643517428 Question Type : SUBJECTIVE

Correct Marks : 10

What are the important aspects which a farmer must keep in mind before the start of installation process of any solar PV pumping system at farmers' field. Discuss.

Question Number : 35 Question Id : 8643517429 Question Type : SUBJECTIVE

Correct Marks : 10

Describe the process of solar PV array installation.

Question Number : 36 Question Id : 8643517430 Question Type : SUBJECTIVE

Correct Marks : 10

If a pump is switched ON and is not discharging water, explain the possible causes for it?

Question Number : 37 Question Id : 8643517431 Question Type : SUBJECTIVE

Correct Marks : 10

Describe different risks involved in operation with different components of Solar PV system.