RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

VALUE ADDED COURSES
2022-2023
Department of Electrical and Electronics Engineering
22EE01-Industrial Automation
MARK SHEET

Sl. No	Register Number	Student Name	MARKS
1	19TE0551	NIRMAL GEORGE.A	96
2	19TE0552	BRANAN.D	88
3	19TE0553	SANJAIDHARAN.G	84
4	19TE0554	KEERTHIKA.N	92
5	19TE0555	KAVIMANI.M	92
6	19TE0556	MUTHUKUMARAN.V	92
7	19TE0557	RAKESH.M	96
8	19TE0558	VEDA.S	88
9	19TE0559	YUVARAJ.P	84
10	19TEL032	DINESHKAR.M	88

HOD

PRINCIPAL

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK
COLLEGE OF ENGINEERING AND TECHNOLOGY
(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

VALUE ADDED COURSES
2022-2023
Department of Electrical and Electronics Engineering
22EE01-Industrial automation

NAME:

CLASS:

DATE:

1. Which of the following is not a common inputs device in a control system?

a) Sensors b) Actuators

c) Timers d) Speakers

Answer: d) Speakers

2. What type of control system uses a set of pre-programmed instructions to control a process?

a) Sequential control b) Programmable Logic Control

c) Proportional control d) Integral control

Answer: b) Programmable Logic Control

3. Which type of control is used to adjust the speed of a motor?

a) On-off control b) Servo control

c) Proportional control d) Integral control

Answer: b) Servo control

4. hat type of control system uses a model of the process being controlled to make decisions?

a) Model-based control b) Fuzzy control

c) Neural network control d) All of the above

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road.
Sulthanpet Post,
Puducherry - 605 110

Answer: d) All of the above

5. What type of control system uses feedback to adjust the output in order to maintain a constant set point?

a) Open-loop control b) Closed-loop control

c) Hybrid control d) None of the above

Answer: b) Closed-loop control

6. Which component of a control system compares the desired output to the actual output?

a) Sensor b) Actuator

c) Control valve d) Comparator

Answer: d) Comparator

7. What type of control system adjusts the output based on the rate of change of the input?

a) Proportional control b) Integral control

c) Derivative control d) All of the above

Answer: c) Derivative control

8. What type of control system adjusts the output based on the accumulated error over time?

a) Proportional control b) Integral control

c) Derivative control d) All of the above

Answer: b) Integral control

9. What type of control system is used to control the temperature of a furnace?

a) On-off control b) Servo control

c) Proportional control d) Integral control

Answer: c) Proportional control

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK College of Engineering & Technology

10. What type of control system uses a computer to continuously monitor and adjust process variables remotely?

a) PLC control
b) DCS control
c) Remote SCADA control
d) Both a and b

Answer: c) Remote SCADA control

11. What type of control system is used to control a manufacturing process?

a) Batch control
b) Continuous control
c) Discrete control
d) Process control

Answer: d) Process control

12. Which component of a control system generates the output signal?

a) Sensor
b) Actuator
c) Controller
d) Valve

Answer: c) Controller

13. What type of control system uses a combination of feedback and feedforward control?

a) Open-loop control
b) Closed-loop control
c) Hybrid control
d) None of the above

Answer: c) Hybrid control

14. What type of control system adjusts the output based on the accumulated error over time and the rate of change of the input?

a) Proportional control
b) Integral-Derivative control
c) Derivative control
d) All of the above

Answer: b) Integral-Derivative control

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

15. What type of control system uses a mathematical model of the process to make decisions?

a) Model-based control
b) Fuzzy control
c) Neural network control
d) All of the above

Answer: a) Model-based control

16. What type of control system uses a pre-programmed set of rules to make decisions?

a) Fuzzy control
b) Rule-based control
c) Neural network control
d) All of the above

Answer: b) Rule-based control

17. What type of control system is used to control the pressure of a process?

a) On-off control
b) Servo control
c) Proportional control
d) Integral control

Answer: c) Proportional control

18. What type of control system is used to control the movement of a robot?

a) Position control
b) Velocity control
c) Torque control
d) All of the above

Answer: d) All of the above

19. What is the primary goal of industrial automation?

a) To increase efficiency
b) To reduce costs
c) To improve safety
d) All of the above

Answer: d) All of the above

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

20. What are the main components of an industrial automation system?

a) Sensors, actuators, and a control system
b) Robots, conveyors, and a control system
c) PLC, HMI and a control system
d) All of the above

Answer: c) PLC, HMI and a control system

21. What is the function of a SCADA system in industrial automation?

a) To monitor and control industrial processes in real-time
b) To collect and analyze data from industrial processes
c) To provide remote access to industrial processes
d) All of the above

Answer: d) All of the above

22. What is the function of a DCS in industrial automation?

a) To control industrial processes at a local level
b) To provide centralized monitoring and control of multiple industrial processes
c) To provide real-time data and control of industrial processes
d) All of the above

Answer: d) All of the above

23. What is the function of an MES in industrial automation?

a) To manage and optimize production processes

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK College of Engineering & Technology

b) To track and trace products throughout the production process

c) To collect and analyze data from production processes

d) All of the above

Answer: d) All of the above

24. What is the function of a BMS in industrial automation?

a) To manage and control building systems such as HVAC, lighting, and security

b) To monitor and analyze energy consumption in buildings

c) To provide remote access to building systems

d) All of the above

Answer: d) All of the above

25. What is the function of a VFD in industrial automation?

a) To control the speed of AC motors

b) To control the torque of AC motors

c) To control the power consumption of AC motors

d) All of the above

Answer: d) All of the above

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

VALUE ADDED COURSES
2022-2023
Department of Electrical and Electronics Engineering
22EE01-Industrial automation

NAME: VEDA.S
CLASS: IV/EEE
DATE: 20/08/2022

22/25

88%

1. Which of the following is not a common inputs device in a control system?
a) Sensors b) Actuators
c) Timers d) Speakers

2. What type of control system uses a set of pre-programmed instructions to control a process?
a) Sequential control b) Programmable Logic Control
c) Proportional control d) Integral control

3. Which type of control is used to adjust the speed of a motor?
a) On-off control b) Servo control
c) Proportional control d) Integral control

4. What type of control system uses a model of the process being controlled to make decisions?
a) Model-based control b) Fuzzy control
c) Neural network control d) All of the above

5. What type of control system uses feedback to adjust the output in order to maintain a constant set point?
a) Open-loop control b) Closed-loop control
c) Hybrid control d) None of the above

6. Which component of a control system compares the desired output to the actual output?
a) Sensor b) Actuator
c) Control valve d) Comparator

7. What type of control system adjusts the output based on the rate of change of the input?
a) Proportional control b) Integral control
c) Derivative control d) All of the above

8. What type of control system adjusts the output based on the accumulated error over time?
a) Proportional control b) Integral control
c) Derivative control d) All of the above

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

9. What type of control system is used to control the temperature of a furnace?
a) On-off control
b) Servo control
c) Proportional control
d) Integral control

10. What type of control system uses a computer to continuously monitor and adjust process variables remotely?
a) PLC control
b) DCS control
c) Remote SCADA control
d) Both a and b

11. What type of control system is used to control a manufacturing process?
a) Batch control
b) Continuous control
c) Discrete control
d) Process control

12. Which component of a control system generates the output signal?
a) Sensor
b) Actuator
c) Controller
d) Valve

13. What type of control system uses a combination of feedback and feedforward control?
a) Open-loop control
b) Closed-loop control
c) Hybrid control
d) None of the above

14. What type of control system adjusts the output based on the accumulated error over time and the rate of change of the input?
a) Proportional control
b) Integral-Derivative control
c) Derivative control
d) All of the above

15. What type of control system uses a mathematical model of the process to make decisions?
a) Model-based control
b) Fuzzy control
c) Neural network control
d) All of the above

16. What type of control system uses a pre-programmed set of rules to make decisions?
a) Fuzzy control
b) Rule-based control
c) Neural network control
d) All of the above

17. What type of control system is used to control the pressure of a process?
a) On-off control
b) Servo control
c) Proportional control
d) Integral control

18. What type of control system is used to control the movement of a robot?
a) Position control
b) Velocity control
c) Torque control
d) All of the above

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

19. What is the primary goal of industrial automation?
a) To increase efficiency
b) To reduce costs
c) To improve safety
d) All of the above

20. What are the main components of an industrial automation system?
a) Sensors, actuators, and a control system
b) Robots, conveyors, and a control system
c) PLC, HMI and a control system
d) All of the above

21. What is the function of a SCADA system in industrial automation?
a) To monitor and control industrial processes in real-time
b) To collect and analyze data from industrial processes
c) To provide remote access to industrial processes
d) All of the above

22. What is the function of a DCS in industrial automation?
a) To control industrial processes at a local level
b) To provide centralized monitoring and control of multiple industrial processes
c) To provide real-time data and control of industrial processes
d) All of the above

23. What is the function of an MES in industrial automation?
a) To manage and optimize production processes
b) To track and trace products throughout the production process
c) To collect and analyze data from production processes
d) All of the above

24. What is the function of a BMS in industrial automation?
a) To manage and control building systems such as HVAC, lighting, and security
b) To monitor and analyze energy consumption in buildings
c) To provide remote access to building systems
d) All of the above

25. What is the function of a VFD in industrial automation?
a) To control the speed of AC motors
b) To control the torque of AC motors
c) To control the power consumption of AC motors
d) All of the above

Dr. S. SEENUVASAMURTHI, M.E., Ph.C.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK College of Engineering & Technology

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

VALUE ADDED COURSES
2022-2023
Department of Electrical and Electronics Engineering
22EE02-Artificial Neural Networks.

NAME: ARUN.P
CLASS: III/EEE
DATE: 20/08/2022

1. Who was the inventor of the first neurocomputer?
a)Dr. John Hecht-Nielsen b).Dr. Robert Hecht-Nielsen
c).Dr. Alex Hecht-Nielsen d)Dr. Steve Hecht-Nielsen

24/25 96%

2. A 3-input neuron is trained to output a zero when the input is 110 and a one when the input is 111. After generalization, the output will be zero when and only when the input is?
a) 000 or 110 or 011 or 101 b) 010 or 100 or 110 or 101
c) 000 or 010 or 110 or 100 d) 100 or 111 or 101 or 001

3. What is perceptron?
a) a single layer feed-forward neural network with pre-processing
b) an auto-associative neural network
c) a double layer auto-associative neural network
d) a neural network that contains feedback

4. What is an auto-associative network?
a) a neural network that contains no loops
b) a neural network that contains feedback
c) a neural network that has only one loop
d) a single layer feed-forward neural network with pre-processing

5. A 4-input neuron has weights 1, 2, 3 and 4. The transfer function is linear with the constant of proportionality being equal to 2. The inputs are 4, 10, 5 and 20 respectively. What will be the output?
a) 238 b) 76
c) 119 d) 123

6. Which of the following is true?
(i) On average, neural networks have higher computational rates than conventional computers.
(ii) Neural networks learn by example.
(iii) Neural networks mimic the way the human brain works.
a) All of the mentioned are true b) (ii) and (iii) are true
c) (i) and (ii) and (iii) are true d) None of the mentioned

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK College of Engineering & Technology

7. Which of the following is true for neural networks?
(i) The training time depends on the size of the network.
(ii) Neural networks can be simulated on a conventional computer.
(iii) Artificial neurons are identical in operation to biological ones.
a) All of the mentioned b) (ii) is true
c) (i) and (ii) are true d) None of the mentioned

8. What are the advantages of neural networks over conventional computers?
(i) They have the ability to learn by example
(ii) They are more fault tolerant
(iii)They are more suited for real time operation due to their high 'computational' rates
a) (i) and (ii) are true b) (i) and (iii) are true
c) Only (i) d) All of the mentioned

9. Which of the following is true?
Single layer associative neural networks do not have the ability to:
(i) perform pattern recognition
(ii) find the parity of a picture
(iii)determine whether two or more shapes in a picture are connected or not
a) (ii) and (iii) are true b) (ii) is true
c) All of the mentioned d) None of the mentioned

10. Which is true for neural networks?
a) It has set of nodes and connections b) Each node computes it's weighted input
c) Node could be in excited state or non-excited state d) All of the mentioned

11. What is Neuro software?
a) A software used to analyze neurons b) It is powerful and easy neural network
c) Designed to aid experts in real world d) It is software used by Neurosurgeon

12. Why is the XOR problem exceptionally interesting to neural network researchers?
a) Because it can be expressed in a way that allows you to use a neural network
b) Because it is complex binary operation that cannot be solved using neural networks
c) Because it can be solved by a single layer perceptron
d) Because it is the simplest linearly inseparable problem that exists.

13. What is back propagation?
a) It is another name given to the curvy function in the perceptron
b) It is the transmission of error back through the network to adjust the inputs
c) It is the transmission of error back through the network to allow weights to be adjusted so that the network can learn
d) None of the mentioned

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

14. Why are linearly separable problems of interest of neural network researchers?
a) Because they are the only class of problem that network can solve successfully
b) Because they are the only class of problem that Perceptron can solve successfully
c) Because they are the only mathematical functions that are continue
d) Because they are the only mathematical functions you can draw

15. Which of the following is not the promise of artificial neural network?
a) It can explain result
b) It can survive the failure of some nodes
c) It has inherent parallelism
d) It can handle noise

16. Neural Networks are complex _____ with many parameters.
a) Linear Functions
b) Nonlinear Functions
c) Discrete Functions
d) Exponential Functions

17. A perceptron adds up all the weighted inputs it receives, and if it exceeds a certain value, it outputs a 1, otherwise it just outputs a 0.
a) True
b) False
c) Sometimes – it can also output intermediate values as well
d) Can't say

18. What is the name of the function in the following statement "A perceptron adds up all the weighted inputs it receives, and if it exceeds a certain value, it outputs a 1, otherwise it just outputs a 0"?
a) Step function
b) Heaviside function
c) Logistic function
d) Perceptron function

19. Having multiple perceptrons can actually solve the XOR problem satisfactorily: this is because each perceptron can partition off a linear part of the space itself, and they can then combine their results.
a) True – this works always, and these multiple perceptrons learn to classify even complex problems
b) False – perceptrons are mathematically incapable of solving linearly inseparable functions, no matter what you do
c) True – perceptrons can do this but are unable to learn to do it – they have to be explicitly hand-coded
d) False – just having a single perceptron is enough

20. The network that involves backward links from output to the input and hidden layers is called _____
a) Self organizing maps
b) Perceptrons
c) Recurrent neural network
d) Multi layered perceptron

21. Which of the following is an application of NN (Neural Network)?
a) Sales forecasting
b) Data validation
c) Risk management
d) All of the mentioned

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

22. How many terms are required for building a bayes model?
a) 1 b) 2
c) 3 d) 4

23. What is needed to make probabilistic systems feasible in the world?
a) Reliability b) Crucial robustness
c) Feasibility d) None of the mentioned

24. Where does the bayes rule can be used?
a) Solving queries b) Increasing complexity
c) Decreasing complexity d) Answering probabilistic query

25. What does the bayesian network provides?
a) Complete description of the domain b) Partial description of the domain
c) Complete description of the problem d) None of the mentioned

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road.
Sulthanpet Post,
Puducherry - 605 110

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

Certificate of Completion

2022-2023

This is to certify that Mr/Ms .....ARUN.P.....

Year...III..... Department...EEE..... has successfully Completed the Value added course.

COURSE TITLE: ...ARTIFICAL...NEURAL....NETWORK..... SCORE: .....96.....

COURSE DURATION: ....9.1.8.22...to...14.1.8.22.....

HOD

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

PRINCIPAL

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

Certificate of Completion

2022-2023

This is to certify that Mr/Ms .....VEDA.S.....

Year...IV..... Department...EEE..... has successfully Completed the Value added course.

COURSE TITLE: ...INDUSTRIAL AUTOMATION..... SCORE: .....88.....

COURSE DURATION: ...9/8/22 to 14/8/22.....

RAAK College of Engineering & Technology

HOD

Dr. S. SEENUVASAMURTHI, M.E., PH.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

PRINCIPAL

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

VALVE ADDED COURSES

2022-2023

Department of Electrical and Electronics Engineering

22EE02-_Artificial Neural Networks

MARK SHEET

Sl. No	Register Number	Student Name	MARKS
1	20TE0251	ARUN.S	88
2	20TE0252	KANMANI.K	84
3	20TE0253	NALLARASAN.E	96
4	20TE0254	PRITHEESH KUMAR.R	84
5	20TE0255	VENKATESAN.S	92
6	20TEL095	ARUN.P	96
7	20TEL097	GOKUL.C	84
8	20TEL098	MARIYAPPAN.S	92
9	20TEL099	MOHAMED AASHIK.M	88
10	20TEL100	PUVIARASU.M	84

HOD

PRINCIPAL

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

VALUE ADDED COURSES

2022-2023

Department of Electrical and Electronics Engineering

22EE02-Artificial Neural Networks.

NAME:

CLASS:

DATE:

1. Who was the inventor of the first neuro computer?

A.Dr. John Hecht-Nielsen B.Dr. Robert Hecht-Nielsen

C.Dr. Alex Hecht-Nielsen D.Dr. Steve Hecht-Nielsen

Ans : B

2. A 3-input neuron is trained to output a zero when the input is 110 and a one when the input is 111. After generalization, the output will be zero when and only when the input is?

a) 000 or 110 or 011 or 101 b) 010 or 100 or 110 or 101

c) 000 or 010 or 110 or 100 d) 100 or 111 or 101 or 001

Answer: c

3. What is perceptron?

a) a single layer feed-forward neural network with pre-processing

b) an auto-associative neural network

c) a double layer auto-associative neural network

d) a neural network that contains feedback

Answer: a

4. What is an auto-associative network?

a) a neural network that contains no loops

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

b) a neural network that contains feedback

c) a neural network that has only one loop

d) a single layer feed-forward neural network with pre-processing

Answer: b

5. A 4-input neuron has weights 1, 2, 3 and 4. The transfer function is linear with the constant of proportionality being equal to 2. The inputs are 4, 10, 5 and 20 respectively. What will be the output?

a) 238 b) 76

c) 119 d) 123

Answer: a

6. Which of the following is true?

(i) On average, neural networks have higher computational rates than conventional computers.

(ii) Neural networks learn by example.

(iii) Neural networks mimic the way the human brain works.

a) All of the mentioned are true b) (ii) and (iii) are true

c) (i), (ii) and (iii) are true d) None of the mentioned

Answer: a

7. Which of the following is true for neural networks?

(i) The training time depends on the size of the network.

(ii) Neural networks can be simulated on a conventional computer.

(iii) Artificial neurons are identical in operation to biological ones.

a) All of the mentioned b) (ii) is true

c) (i) and (ii) are true d) None of the mentioned

Answer: c

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

8. What are the advantages of neural networks over conventional computers?

(i) They have the ability to learn by example

(ii) They are more fault tolerant

(iii)They are more suited for real time operation due to their high 'computational' rates

a) (i) and (ii) are true b) (i) and (iii) are true

c) Only (i) d) All of the mentioned

Answer: d

9. Which of the following is true?

Single layer associative neural networks do not have the ability to:

(i) perform pattern recognition

(ii) find the parity of a picture

(iii)determine whether two or more shapes in a picture are connected or not

a) (ii) and (iii) are true b) (ii) is true

c) All of the mentioned d) None of the mentioned

Answer: a

10. Which is true for neural networks?

a) It has set of nodes and connections b) Each node computes it's weighted input

c) Node could be in excited state or non-excited state d) All of the mentioned

Answer: d

11. What is Neuro software?

a) A software used to analyze neurons b) It is powerful and easy neural network

c) Designed to aid experts in real world d) It is software used by Neurosurgeon

Answer: b

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post
Puducherry - 6

12. Why is the XOR problem exceptionally interesting to neural network researchers?

a) Because it can be expressed in a way that allows you to use a neural network

b) Because it is complex binary operation that cannot be solved using neural networks

c) Because it can be solved by a single layer perceptron

d) Because it is the simplest linearly inseparable problem that exists.

Answer: d

13. What is back propagation?

a) It is another name given to the curvy function in the perceptron

b) It is the transmission of error back through the network to adjust the inputs

c) It is the transmission of error back through the network to allow weights to be adjusted so that the network can learn

d) None of the mentioned

Answer: c

14. Why are linearly separable problems of interest of neural network researchers?

a) Because they are the only class of problem that network can solve successfully

b) Because they are the only class of problem that Perceptron can solve successfully

c) Because they are the only mathematical functions that are continue

d) Because they are the only mathematical functions you can draw

Answer: b

15. Which of the following is not the promise of artificial neural network?

a) It can explain result

b) It can survive the failure of some nodes

c) It has inherent parallelism

d) It can handle noise

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

16. Neural Networks are complex _____ with many parameters.

a) Linear Functions b) Nonlinear Functions

c) Discrete Functions d) Exponential Functions

Answer: a

17. A perceptron adds up all the weighted inputs it receives, and if it exceeds a certain value, it outputs a 1, otherwise it just outputs a 0.

a) True b) False

c) Sometimes – it can also output intermediate values as well d) Can't say

Answer: a

18. What is the name of the function in the following statement "A perceptron adds up all the weighted inputs it receives, and if it exceeds a certain value, it outputs a 1, otherwise it just outputs a 0"?

a) Step function b) Heaviside function

c) Logistic function d) Perceptron function

Answer: b

19. Having multiple perceptrons can actually solve the XOR problem satisfactorily: this is because each perceptron can partition off a linear part of the space itself, and they can then combine their results.

a) True – this works always, and these multiple perceptrons learn to classify even complex problems

b) False – perceptrons are mathematically incapable of solving linearly inseparable functions, no matter what you do

c) True – perceptrons can do this but are unable to learn to do it – they have to be explicitly hand-coded

d) False – just having a single perceptron is enough

Answer: c

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

20. The network that involves backward links from output to the input and hidden layers is called _____

a) Self organizing maps b) Perceptrons

c) Recurrent neural network d) Multi layered perceptron

Answer: c

21. Which of the following is an application of NN (Neural Network)?

a) Sales forecasting b) Data validation

c) Risk management d) All of the mentioned

Answer: d

22. How many terms are required for building a bayes model?

a) 1 b) 2

c) 3 d) 4

Answer: c

23. What is needed to make probabilistic systems feasible in the world?

a) Reliability b) Crucial robustness

c) Feasibility d) None of the mentioned

Answer: b

24. Where does the bayes rule can be used?

a) Solving queries b) Increasing complexity

c) Decreasing complexity d) Answering probabilistic query

Answer: d

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

25. What does the bayesian network provides?

a) Complete description of the domain b) Partial description of the domain

c) Complete description of the problem d) None of the mentioned

Answer: a

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

VALUE ADDED COURSES
2022-2023
Department of Electrical and Electronics Engineering
22EE02-Artificial Neural Networks.

NAME: ARUN.P
CLASS: III/EEE
DATE: 20/08/2022

1. Who was the inventor of the first neurocomputer?
a)Dr. John Hecht-Nielsen b).Dr. Robert Hecht-Nielsen
c).Dr. Alex Hecht-Nielsen d)Dr. Steve Hecht-Nielsen

24/25 96%

2. A 3-input neuron is trained to output a zero when the input is 110 and a one when the input is 111. After generalization, the output will be zero when and only when the input is?
a) 000 or 110 or 011 or 101 b) 010 or 100 or 110 or 101
c) 000 or 010 or 110 or 100 d) 100 or 111 or 101 or 001

3. What is perceptron?
a) a single layer feed-forward neural network with pre-processing
b) an auto-associative neural network
c) a double layer auto-associative neural network
d) a neural network that contains feedback

4. What is an auto-associative network?
a) a neural network that contains no loops
b) a neural network that contains feedback
c) a neural network that has only one loop
d) a single layer feed-forward neural network with pre-processing

5. A 4-input neuron has weights 1, 2, 3 and 4. The transfer function is linear with the constant of proportionality being equal to 2. The inputs are 4, 10, 5 and 20 respectively. What will be the output?
a) 238 b) 76
c) 119 d) 123

6. Which of the following is true?
(i) On average, neural networks have higher computational rates than conventional computers.
(ii) Neural networks learn by example.
(iii) Neural networks mimic the way the human brain works.
a) All of the mentioned are true b) (ii) and (iii) are true
c) (i), (ii) and (iii) are true d) None of the mentioned

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam

7. Which of the following is true for neural networks?
(i) The training time depends on the size of the network.
(ii) Neural networks can be simulated on a conventional computer.
(iii) Artificial neurons are identical in operation to biological ones.
a) All of the mentioned b) (ii) is true
c) (i) and (ii) are true d) None of the mentioned

8. What are the advantages of neural networks over conventional computers?
(i) They have the ability to learn by example
(ii) They are more fault tolerant
(iii)They are more suited for real time operation due to their high 'computational' rates
a) (i) and (ii) are true b) (i) and (iii) are true
c) Only (i) d) All of the mentioned

9. Which of the following is true?
Single layer associative neural networks do not have the ability to:
(i) perform pattern recognition
(ii) find the parity of a picture
(iii)determine whether two or more shapes in a picture are connected or not
a) (ii) and (iii) are true b) (ii) is true
c) All of the mentioned d) None of the mentioned

10. Which is true for neural networks?
a) It has set of nodes and connections b) Each node computes it's weighted input
c) Node could be in excited state or non-excited state d) All of the mentioned

11. What is Neuro software?
a) A software used to analyze neurons b) It is powerful and easy neural network
c) Designed to aid experts in real world d) It is software used by Neurosurgeon

12. Why is the XOR problem exceptionally interesting to neural network researchers?
a) Because it can be expressed in a way that allows you to use a neural network
b) Because it is complex binary operation that cannot be solved using neural networks
c) Because it can be solved by a single layer perceptron
d) Because it is the simplest linearly inseparable problem that exists.

13. What is back propagation?
a) It is another name given to the curvy function in the perceptron
b) It is the transmission of error back through the network to adjust the inputs
c) It is the transmission of error back through the network to allow weights to be adjusted so that the network can learn.
d) None of the mentioned

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road
Sulthanpet Post,
Puducherry - 605 110

14. Why are linearly separable problems of interest of neural network researchers?
a) Because they are the only class of problem that network can solve successfully
b) Because they are the only class of problem that Perceptron can solve successfully
c) Because they are the only mathematical functions that are continue
d) Because they are the only mathematical functions you can draw

15. Which of the following is not the promise of artificial neural network?
a) It can explain result
b) It can survive the failure of some nodes
c) It has inherent parallelism
d) It can handle noise

16. Neural Networks are complex _____ with many parameters.
a) Linear Functions
b) Nonlinear Functions
c) Discrete Functions
d) Exponential Functions

17. A perceptron adds up all the weighted inputs it receives, and if it exceeds a certain value, it outputs a 1, otherwise it just outputs a 0.
a) True
b) False
c) Sometimes – it can also output intermediate values as well
d) Can't say

18. What is the name of the function in the following statement "A perceptron adds up all the weighted inputs it receives, and if it exceeds a certain value, it outputs a 1, otherwise it just outputs a 0"?
a) Step function
b) Heaviside function
c) Logistic function
d) Perceptron function

19. Having multiple perceptrons can actually solve the XOR problem satisfactorily: this is because each perceptron can partition off a linear part of the space itself, and they can then combine their results.
a) True – this works always, and these multiple perceptrons learn to classify even complex problems
b) False – perceptrons are mathematically incapable of solving linearly inseparable functions, no matter what you do
c) True – perceptrons can do this but are unable to learn to do it – they have to be explicitly hand-coded
d) False – just having a single perceptron is enough

20. The network that involves backward links from output to the input and hidden layers is called _____
a) Self organizing maps
b) Perceptrons
c) Recurrent neural network
d) Multi layered perceptron

21. Which of the following is an application of NN (Neural Network)?
a) Sales forecasting
b) Data validation
c) Risk management
d) All of the mentioned

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

22. How many terms are required for building a bayes model?
a) 1 b) 2
c) 3 d) 4

23. What is needed to make probabilistic systems feasible in the world?
a) Reliability b) Crucial robustness
c) Feasibility d) None of the mentioned

24. Where does the bayes rule can be used?
a) Solving queries b) Increasing complexity
c) Decreasing complexity d) Answering probabilistic query

25. What does the bayesian network provides?
a) Complete description of the domain b) Partial description of the domain
c) Complete description of the problem d) None of the mentioned

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post
Puducherry - 605 110

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

Certificate of Completion

2022-2023

This is to certify that Mr/Ms .....ARUN.P.....

Year...III..... Department...EEE..... has successfully Completed the Value added course.

COURSE TITLE: ...ARTIFICAL..NEURAL....NETWORK..... SCORE: .....96.....

COURSE DURATION: ...9.1.8.22...to...14.1.8.22.....

RAAK College of Engineering & Technology

HOD

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

PRINCIPAL

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

VALUE ADDED COURSES
2022-2023
Department of Electrical and Electronics Engineering
22EE03- Wind and Solar Electrical Systems

MARK SHEET

Sl. No	Register Number	Student Name	MARKS
1	21TE0091	AGILAN .M	92
2	21TE0093	BALAMURUGAN.R	92
3	21TE0094	DHINESH.V	92
4	21TE0095	JAGADEESH .S	96
5	21TE0097	PRASANTH.R	88
6	21TE0098	RAGUL .S	84
7	21TE0099	SAKTHIVEL.S	88
8	21TE0100	SANTHOSH.R	96
9	21TE0101	SELVAM.R	92
10	21TE0102	SURESH KUMAR.R	92
11	21TEL052	KALAIMANI.M	92
12	21TEL053	NANDHAN.P	96
13	21TEL054	SABAPATHY.N	88
14	21TEL055	VENUGOPAL.A	84
15	21TEL056	YUVARAJ.R	88

HOD

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

PRINCIPAL

RAAK
COLLEGE OF ENGINEERING AND TECHNOLOGY
(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

VALUE ADDED COURSES

2022-2023

Department of Electrical and Electronics Engineering

22EE03- Wind and Solar Electrical Systems

NAME:

CLASS:

DATE:

1. Which of the following is renewable energy resource?

(a) Solar

(b) Wind

(c) Geothermal

(d) All of above

Answer: Option (d)

2. Which country generates all their electricity using renewable energy?

(a) Iceland

(b) England

(c) USA

(d) China

Answer: Option (a)

3. Which of the area can often displaces conventional fuel by renwable energy?

(a) Space heating

(b) Transportation

(c) Electricity generation

(d) All of above

Answer: Option (d)

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

4. In which region winds are stronger and constant?

(a) Deserts

(b) Offshore

(c) Low altitudes sites

(d) All of above

Answer: Option (b)

5. Photovoltaic cell converts solar energy into

(a) Heat energy

(b) Electric energy

(c) Mechanical energy

(d) Chemical energy

Answer: Option (b)

6. Which country meets more than 40% of its electricity demand from wind energy?

(a) Denmark

(b) Portugal

(c) Ireland

(d) Spain

Answer: Option (a)

7. Concentrated solar power (CSP) systems use ____ to focus a large area of sunlight into a small beam.

(a) Lenses

(b) Mirrors

(c) Trackers

(d) All of above

Answer: Option (d)

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

8. What is a disadvantage of renewable energy?

(a) High pollution

(b) Region specific availability

(c) High running cost

(d) Unreliable supply

Answer: Option (d)

9. A Solar cell is an electrical device that converts the energy of light directly into electricity by the _____

(a) Photovoltaic effect

(b) Chemical effect

(c) Atmospheric effect

(d) Physical effect

Answer: Option (a)

10. Which is the largest amount of installed grid interactive renewable power capacity in India?

(a) Wind power

(b) Solar power

(c) Biomass power

(d) Small Hydro power

Answer: Option (a)

11. The world's first 100% solar powered airport is located at

(a) Cochin, Kerala

(b) Bengaluru, Karnataka

(c) Chennai, Tamil Nadu

(d) Mumbai, Maharashtra

Answer: Option (a)

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

12. Where is the largest wind farm located in India?

(a) Jaisalmer wind farm, Rajasthan

(b) Muppandal wind farm, Tamil Nadu

(c) Vaspet wind farm, Maharashtra

(d) Chakala wind farm, Maharashtra

Answer: Option (b)

13. Where does India stand on solar energy production?

(a) First

(b) Second

(c) Third

(d) Fifth

Answer: Option (c)

14. India's position in the Global Wind Energy Council (GWEC) is

(a) First

(b) Second

(c) Third

(d) Fourth

Answer: Option (d)

15. What does heating and cooling of the atmosphere generates?

(a) Conduction currents

(b) Radiation currents

(c) Convection currents

(d) All of above

Answer: Option (c)

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

16. What is the estimated wind energy available over the earth surface?

(a) 2.9 × 120 MW

(b) 1.6 × 107 MW

(c) 1 MW

(d) 5 MW

Answer: Option (b)

17. How much is the estimated wind power India hold?

(a) 10,000 MW

(b) 20,000 MW

(c) 40,000 MW

(d) 50,000 MW

Answer: Option (b)

18. What is the main source of wind?

(a) Uneven land

(b) Sun

(c) Vegetation

(d) Seasons

Answer: Option (b)

19. Earlier wind power plants were created by

(a) Egypt

(b) Germany

(c) Iran

(d) Japan

Answer: Option (c)

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

20. When the land near the earth's equator is heated

(a) All the oceans gets heated up

(b) Small wind currents are formed

(c) Large winds are formed

(d) Tides are raised

Answer: Option (c)

21. What does heating and cooling of the atmosphere generates?

(a) Conduction currents

(b) Radiation currents

(c) Convection currents

(d) All of above

Answer: Option (c)

22. What is the estimated wind energy available over the earth surface?

(a) 2.9 × 120 MW

(b) 1.6 × 107 MW

(c) 1 MW

(d) 5 MW

Answer: Option (b)

23. How much is the estimated wind power India hold?

(a) 10,000 MW

(b) 20,000 MW

(c) 40,000 MW

(d) 50,000 MW

Answer: Option (b)

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

24. What is the main source of wind?

(a) Uneven land

(b) Sun

(c) Vegetation

(d) Seasons

Answer:Option (b)

25. Earlier wind power plants were created by

(a) Egypt

(b) Germany

(c) Iran

(d) Japan

Answer: Option (c)

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

VALUE ADDED COURSES

2022-2023

Department of Electrical and Electronics Engineering

22EE03- WindandSolarElectricalSystems

NAME: SELVAM.R
CLASS: IV/EEE
DATE: 20/08/2022

1. Which of the following is renewable energy resource?
(a) Solar
(b) Wind
(c) Geothermal
(d) Tidal

23/25 92%

2. Which country generates all their electricity using renewable energy?
(a) Iceland
(b) England
(c) USA
(d) China

3. Which of the area can often displaces conventional fuel by renwable energy?
(a) Space heating
(b) Transportation
(c) Electricity generation
(d) All of above

4. In which region winds are stronger and constant?
(a) Deserts
(b) Offshore
(c) Low altitudes sites
(d) All of above

5. Photovoltaic cell converts solar energy into
(a) Heat energy
(b) Electric energy
(c) Mechanical energy
(d) Chemical energy

6. Which country meets more than 40% of its electricity demand from wind energy?
(a) Denmark
(b) Portugal
(c) Ireland
(d) Spain

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

7. Concentrated solar power (CSP) systems use ____ to focus a large area of sunlight into a small beam.
(a) Lenses
(b) Mirrors
(c) Trackers
(d) All of above

8. What is a disadvantage of renewable energy?
(a) High pollution
(b) Region specific availability
(c) High running cost
(d) Unreliable supply

9. A Solar cell is an electrical device that converts the energy of light directly into electricity by the _____
(a) Photovoltaic effect
(b) Chemical effect
(c) Atmospheric effect
(d) Physical effect

10. Which is the largest amount of installed grid interactive renewable power capacity in India?
(a) Wind power
(b) Solar power
(c) Biomass power
(d) Small Hydro power

11. The world's first 100% solar powered airport is located at
(a) Cochin, Kerala
(b) Bengaluru, Karnataka
(c) Chennai, Tamil Nadu
(d) Mumbai, Maharashtra

12. Where is the largest wind farm located in India?
(a) Jaisalmer wind farm, Rajasthan
(b) Muppandal wind farm, Tamil Nadu
(c) Vaspet wind farm, Maharashtra
(d) Chakala wind farm, Maharashtra

13. Where does India stand on solar energy production?
(a) First
(b) Second
(c) Third
(d) Fifth

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

14. India's position in the Global Wind Energy Council (GWEC) is
(a) First
(b) Second
(c) Third
(d) Fourth

15. What does heating and cooling of the atmosphere generates?
(a) Conduction currents
(b) Radiation currents
(c) Convection currents
(d) All of above

16. What is the estimated wind energy available over the earth surface?
(a) 2.9 × 120 MW
(b) 1.6 × 107 MW
(c) 1 MW
(d) 5 MW

17. How much is the estimated wind power India hold?
(a) 10,000 MW
(b) 20,000 MW
(c) 40,000 MW
(d) 50,000 MW

18. What is the main source of wind?
(a) Uneven land
(b) Sun
(c) Vegetation
(d) Seasons

19. Earlier wind power plants were created by
(a) Egypt
(b) Germany
(c) Iran
(d) Japan

20. When the land near the earth's equator is heated
(a) All the oceans gets heated up
(b) Small wind currents are formed
(c) Large winds are formed
(d) Tides are raised

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK College of Engineering & Technology

21. What does heating and cooling of the atmosphere generates?
(a) Conduction currents
(b) Radiation currents
(c) Convection currents
(d) All of above

22. What is the estimated wind energy available over the earth surface?
(a) 2.9 × 120 MW
(b) 1.6 × 107 MW
(c) 1 MW
(d) 5 MW

23. How much is the estimated wind power India hold?
(a) 10,000 MW
(b) 20,000 MW
(c) 40,000 MW
(d) 50,000 MW

24. What is the main source of wind?
(a) Uneven land
(b) Sun
(c) Vegetation
(d) Seasons

25. Earlier wind power plants were created by
(a) Egypt
(b) Germany
(c) Iran
(d) Japan

RAAK College of Engineering & Technology

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

Certificate of Completion

2022-2023

This is to certify that Mr/Ms .....AGILAN..M.....

Year...IV..... Department...E.E.E..... has successfully Completed the Value added course.

COURSE TITLE: ..WIND..AND...SOLAR..ELECTICAL...SYSTEM.. SCORE: .....92.....

COURSE DURATION: ...9.1.8.1.22...to....14.1.8.1.22.....

RAAK College of Engineering & Technology

HOD

Dr. S. SEENUVASAMURTHI, M.E., Ph.D
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

PRINCIPAL