



BHARATHIYAR INSTITUTE OF ENGINEERING FOR WOMEN

Deviyakurichi- 636 112, Thalaivasal-TK, Salem.

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

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Total certificate courses offered in the academic year 2022-2023		10	Total No. of Students Enrolled in the Certificate Program	786	786	

Assessment questions

1. *Question:* In CSI SAP2000, what does the acronym "CSI" stand for?

- a) Computer System Integration
- b) Civil Structural Innovations
- c) Computers and Structures, Inc.
- d) Constructive Structural Integrity

Answer: c) Computers and Structures, Inc.

2. *Question:* Which category of structures is SAP2000 primarily designed for?

- a) Mechanical Structures
- b) Architectural Structures
- c) Civil Structures
- d) Electrical Structures

Answer: c) Civil Structures

3. *Question:* What is the main purpose of the SAP2000 software?

- a) 3D Animation
- b) Structural Analysis and Design
- c) Graphic Design
- d) Project Management

Answer: b) Structural Analysis and Design

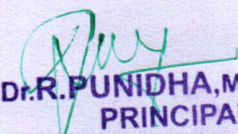
4. *Question:* In SAP2000, what does the term "FEA" stand for?

- a) Finite Element Analysis
- b) Force Elasticity Analysis
- c) Foundation Engineering Assessment
- d) Formwork Execution Algorithm

Answer: a) Finite Element Analysis

5. *Question:* Which analysis type in SAP2000 is used for linear static analysis?

- a) Dynamic Analysis


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- b) Time History Analysis
- c) Nonlinear Static Analysis
- d) Static Analysis

Answer: d) Static Analysis

6. *Question:* What does the acronym "GUI" stand for in the context of SAP2000?

- a) Graphic User Interface
- b) General Usage Instructions
- c) Geotechnical Underlying Integration
- d) Grouped Unit Indicators

Answer: a) Graphic User Interface

7. *Question:* Which file extension is commonly used for SAP2000 model files?

- a) .CAD
- b) .SAP
- c) .SDB
- d) .STA

Answer: c) .SDB

8. *Question:* What is the purpose of the SAP2000 feature called "Mesh Generation"?

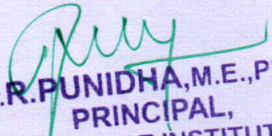
- a) Creating 3D models
- b) Defining material properties
- c) Generating finite element meshes
- d) Performing time history analysis

Answer: c) Generating finite element meshes

9. *Question:* Which load case considers the effects of dead loads only in SAP2000?

- a) Live Load Case
- b) Static Load Case
- c) Dead Load Case
- d) Dynamic Load Case

Answer: c) Dead Load Case


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10. *Question:* In SAP2000, what does the term "P-Delta effect" refer to?

- a) Dynamic analysis
- b) Geotechnical analysis
- c) Nonlinear geometric effects
- d) Seismic analysis

Answer: c) Nonlinear geometric effects

11. *Question:* What does the SAP2000 feature "Response Spectrum Analysis" primarily assess?

- a) Structural damping
- b) Seismic response
- c) Wind effects
- d) Temperature variations

Answer: b) Seismic response

12. *Question:* Which analysis type in SAP2000 considers the effects of time-varying loads?

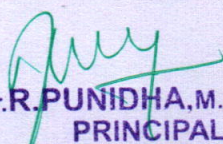
- a) Static Analysis
- b) Modal Analysis
- c) Time History Analysis
- d) Linear Buckling Analysis

Answer: c) Time History Analysis

13. *Question:* Which menu in SAP2000 is used for defining and assigning section properties?

- a) Model
- b) Define
- c) Assign
- d) Section

Answer: d) Section


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14. *Question:* In SAP2000, what does the term "Joint Constraints" refer to?

- a) Restrictions on member lengths

- b) Connection details between members
- c) Constraints applied to joints
- d) Joint loadings

Answer: c) Constraints applied to joints

15. *Question:* What does the "Load Combinations" feature in SAP2000 help determine?

- a) Structural analysis results
- b) Optimal material usage
- c) Load distribution
- d) Foundation design

Answer: a) Structural analysis results

16. *Question:* Which analysis type is used to investigate the stability of a structure in SAP2000?

- a) Modal Analysis
- b) Linear Buckling Analysis
- c) Response Spectrum Analysis
- d) Static Pushover Analysis

Answer: b) Linear Buckling Analysis

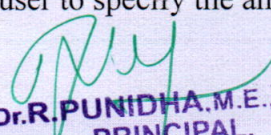
17. *Question:* What is the primary purpose of the "Time-Dependent Material" feature in SAP2000?

- a) Defining nonlinear materials
- b) Accounting for material aging effects
- c) Incorporating creep and shrinkage
- d) Analyzing time-varying loads

Answer: c) Incorporating creep and shrinkage

18. *Question:* Which option in SAP2000 allows the user to specify the analysis type (e.g., linear, nonlinear)?

- a) Analysis Settings
- b) Model Preferences
- c) Section Options
- d) Load Cases


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Answer: a) Analysis Settings

19. *Question:* What does the term "Pushover Analysis" refer to in SAP2000?

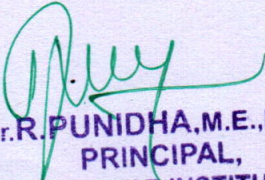
- a) Linear elastic analysis
- b) Progressive collapse analysis
- c) Dynamic analysis
- d) Geotechnical analysis

Answer: b) Progressive collapse analysis

20. *Question:* Which analysis type is suitable for investigating the dynamic response of a structure subjected to earthquake loads?

- a) Static Analysis
- b) Modal Analysis
- c) Time History Analysis
- d) Linear Buckling Analysis

Answer: c) Time History Analysis


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Department of Civil Engineering
Value added Course on "AUTO DISK CIVIL 3D"
Assessment questions

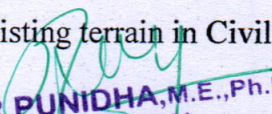
1. What is the primary purpose of Autodesk Civil 3D?
 - a. 3D modeling
 - b. Architectural design
 - c. Civil engineering design
 - d. Animation
 - *Answer: c. Civil engineering design*

2. Which file format is commonly used for saving Autodesk Civil 3D drawings?
 - a. .dwg
 - b. .pdf
 - c. .png
 - d. .xlsx
 - *Answer: a. .dwg*

3. In Civil 3D, what does the term "alignment" refer to?
 - a. Arrangement of objects
 - b. Horizontal and vertical layout of elements
 - c. 3D rendering settings
 - d. File organization
 - *Answer: b. Horizontal and vertical layout of elements*

4. What is the purpose of a profile in Autodesk Civil 3D?
 - a. 3D visualization
 - b. Project timeline
 - c. Representing terrain contours
 - d. Displaying surface elevations along an alignment
 - *Answer: d. Displaying surface elevations along an alignment*

5. Which tool is used for creating surfaces based on existing terrain in Civil 3D?
 - a. Slope Analysis
 - b. Surface Creation
 - c. Contour Design
 - d. Earthwork Calculation
 - *Answer: b. Surface Creation*


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6. In Civil 3D, what does the term "corridor" refer to?

- a. Road intersection
- b. Design pathway
- c. Software interface
- d. Project folder
- *Answer: b. Design pathway*

7. What is the purpose of the "assembly" in Autodesk Civil 3D?

- a. 3D modeling tool
- b. Component grouping for corridor design
- c. Project collaboration feature
- d. File organization structure
- *Answer: b. Component grouping for corridor design*

8. Which tab in Civil 3D is commonly used for managing and analyzing surfaces?

- a. Home
- b. Analyze
- c. Surface
- d. View
- *Answer: c. Surface*

9. What does the term "parcel" mean in Autodesk Civil 3D?

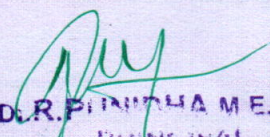
- a. Unit of land
- b. 3D modeling component
- c. Surface elevation point
- d. Corridor pathway
- *Answer: a. Unit of land*

10. Which tool is used for creating cross-sections in Civil 3D?

- a. Section Analysis
- b. Cross-Profile Design
- c. Cross-Section Editor
- d. Elevation Viewer
- *Answer: c. Cross-Section Editor*

11. In Civil 3D, what is the purpose of the "Grading" tool?

- a. Roadway design


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- b. Surface analysis
- c. Earthwork calculations
- d. 3D rendering
- *Answer: c. Earthwork calculations*

12. What is the function of the "Label" tool in Autodesk Civil 3D?

- a. Apply textures to surfaces
- b. Add annotations to objects
- c. Create 3D models
- d. Adjust lighting settings
- *Answer: b. Add annotations to objects*

13. Which command is used for creating a new alignment in Civil 3D?

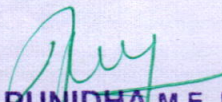
- a. NewAlign
- b. CreateAlignment
- c. AlignDesign
- d. AddAlignment
- *Answer: b. CreateAlignment*

14. How is the design profile related to the alignment in Civil 3D?

- a. It defines the 3D path of the alignment
- b. It represents the alignment's color scheme
- c. It organizes the alignment files
- d. It controls the alignment's transparency
- *Answer: a. It defines the 3D path of the alignment*

15. Which Civil 3D tool is used for creating a pipe network?

- a. Pipe Editor
- b. Pipe Design
- c. Pipe Network
- d. Pipe Builder
- *Answer: c. Pipe Network*


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ASSESEMENT QUESTIONS

1. The laws of Robotics are:

- a) A robot may not injure a human being
- b) A robot must obey the order given by human except when conflict with the first law
- c) A robot must protect its own existence except when it is violating first and second law
- d) Both b and c

Answer:D

2. A _____ is connection between parts or links in a robot that allow motion.

- a) Hinge
- b) Joint
- c) Dis joint
- d) None of the mentioned

Answer:B

3. Classification of Robot is based on:

- a) Geometry and geometric classification
- b) Left right classification
- c) Based on control system
- d) All of the mentioned

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Answer:D

4. Hierarchical level control involves :

- a) Level 1: Actuator control controls individual robot actuators
- b) Level 2: Path control coordinates robot path movement
- c) Level 3: Main control high level instruction interpreter
- d) All of the mentioned

Answer:D

5. Non servo robots are also called as:

- a) Pick and place
- b) Fixed stop robot
- c) Both of the mentioned
- d) None of the mentioned

Answer:C

6. Characteristics of non-servo robot are:

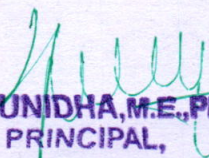
- a) Relatively inexpensive compared to servo robots
- b) Simple, understand and operate
- c) Precise and reliable
- d) Open loop system

Answer:D

7. Assertion (A): The control system of an industrial robot determine its flexibility and efficiency, within the limits set beforehand by the design of the mechanical structure.

Reason (R): The control system provides a logical sequence for the robot to follow.

- a) Both A and R are true and R is not correct explanation of A.
- b) Both A and R are true but R is not correct explanation of A.
- c) A is true but R is false
- d) A is false but R is true


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Answer:A

8. An automatic apparatus or device that performs functions ordinarily ascribed to humans or operate with what appears to be almost human intelligence is called _____

- a) Robot
- b) Human
- c) Animals
- d) Reptiles

Answer:A

9. The basic components of robot are:

- a) The mechanical linkage
- b) Sensors and controllers
- c) User interface and power conversion unit
- d) All of the mentioned


Answer:D

10. Assertion (A): Degree of freedom is defined as the number of variables to define motion in the body in space.

Reason (R): Maximum degree of freedom can be six in a robot.

- a) Both A and R are true and R is not correct explanation of A.
- b) Both A and R are true but R is not correct explanation of A.
- c) A is true but R is false
- d) A is false but R is true

Answer:B


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ASSESEMENT ANSWER SHEET

STUDENT NAME:

TOTAL MARKS: 10

REGISTER NUMBER:

DATE:

1. Among the following option identify the one which is not a type of learning

- A).Semi unsupervised learning
- B).Supervised learning
- C).Reinforcement learning
- D).Unsupervised learning

Answer:A

2. Identify the kind of learning algorithm for "facial identities for facial expressions".

- A).Prediction
- B).Recognition patterns
- C).Recognizing anomalies
- D).Generating patterns

Answer:B

3. What is the application of machine learning methods to a large database called?

- A).Big data computing
- B).Internet of things
- C).Data mining
- D).Artificial intelligence

Answer:C


4. Identify the type of learning in which labeled training data is used.

- A).Semi unsupervised learning
- B). Supervised learning
- C). Reinforcement learning
- D).Unsupervised learning

Answer:B

5. Identify whether true or false: In PCA the number of input dimensions is equal to principal components.

A).True


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B).False

Answer:A

6. Which of the following machine learning algorithm is based upon the idea of bagging?

- A).Decision tree
- B).Random-forest
- C).Classification
- D).Regression

Answer:B

7. Machine learning is a subset of which of the following.

- A).Artificial intelligence
- B). Deep learning
- C).Data learning
- D).None of the above

Answer:A

8. The father of machine learning is _____

- A).Geoffrey Everest Hinton
- B).Geoffrey Hill
- C).Geoffrey Chaucer
- D).None of the above

Answer:A

9. Which of the following are common classes of problems in machine learning?

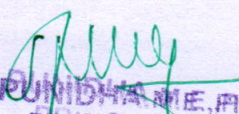
- A).Regression
- B).Classification
- C).Clustering
- D).All of the above

Answer:D

10. Select the correct definition of neuro software.

- A). It is software used by neurosurgeons
- B).It is software used to analyze neurons
- C).It is a powerful and easy neural network
- D).None of the above

Answer:C


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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



VALUE ADDED COURSE ON “ARTIFICIAL INTELLIGENCE”

18/01/2023 to 23/01/2023

ASSESSMENT QUESTIONS

NAME:

DATE:

REGISTER NUMBER:

1. What is Artificial Intelligence?

- a) Artificial Intelligence is a field that aims to make humans more intelligent
- b) Artificial Intelligence is a field that aims to improve the security
- c) Artificial Intelligence is a field that aims to develop intelligent machines
- d) Artificial Intelligence is a field that aims to mine the data

2. Who is the inventor of Artificial Intelligence?

- a) Geoffrey Hinton
- b) Andrew Ng
- c) John McCarthy
- d) Jürgen Schmidhuber

3. Which of the following is an application of Artificial Intelligence?

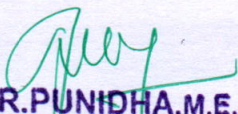
- a) It helps to exploit vulnerabilities to secure the firm
- b) Language understanding and problem-solving (Text analytics and NLP)
- c) Easy to create a website
- d) It helps to deploy applications on the cloud

4. Which of the following is a component of Artificial Intelligence?

- a) Learning
- b) Training
- c) Designing
- d) Puzzling

5. What is the function of an Artificial Intelligence “Agent”?

- a) Mapping of goal sequence to an action
- b) Work without the direct interference of the people
- c) Mapping of precept sequence to an action


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d) Mapping of environment sequence to an action

6. What is the function of the system Student?

- a) program that can read algebra word problems only
- b) system which can solve algebra word problems but not read
- c) system which can read and solve algebra word problems
- d) None of the mentioned

7. _____ number of informed search method are there in Artificial Intelligence.

- a) 4
- b) 3
- c) 2
- d) 1

8. The total number of proposition symbols in AI are _____

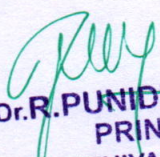
- a) 3 proposition symbols
- b) 1 proposition symbols
- c) 2 proposition symbols
- d) No proposition symbols

9. Which of the following are the approaches to Artificial Intelligence?

- a) Applied approach
- b) Strong approach
- c) Weak approach
- d) All of the mentioned

10. Artificial Intelligence has evolved extremely in all the fields except for _____

- a) Web mining
- b) Construction of plans in real time dynamic systems
- c) Understanding natural language robustly
- d) All of the mentioned


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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE ON “ARTIFICIAL INTELLIGENCE”

18/01/2023 to 23/01/2023

ASSESSMENT ANSWER

1.C

2. C

3. B

4.A

5. C

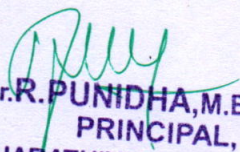
6. C

7.A

8.C

9.D

10.D


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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE ON "ELECTRIC VEHICLE DESIGN"

17/07/2023 to 21/07/2023

ASSESSMENT QUESTIONS

NAME:

DATE:

REGISTER NUMBER:

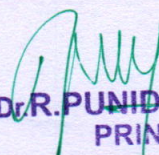
1. Where do you plug in a charger on an EV in order to charge the battery?
 - a) Gas Cap
 - b) Charging Station
 - c) Charging Hub
 - d) Charging Port

2. This size battery pack might be found in a typical BEV:
 - a) 75 kWh
 - b) 90 Wh
 - c) 300 kWh
 - d) 300 Wh

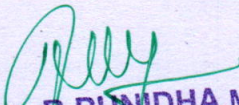
3. The average estimated range per hour added by a level 1 charger:
 - a) 4 miles
 - b) 25 miles
 - c) 50 miles
 - d) 200 miles

4. _____ can help improve the range of an EV in cold and hot weather.
 - a) Accelerating quickly
 - b) Slamming on the brakes
 - c) Listening to music
 - d) Preconditioning the interior

5. In most EVs, this allows for a smoother ride from zero to top speed:
 - a) Multiple Motors
 - b) Single Speed Transmission
 - c) Air
 - d) Regenerative Braking


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6. Home charging allows an EV owner to:
- a) Charge for free
 - b) Avoid traffic
 - c) Leave home each morning with a full "tank"
7. It's projected that the average EV will have _____ miles of range by 2022.
- a) 200
 - b) 275
 - c) 400
 - d) 500
8. A plug-in hybrid vehicle (PHEV) can be charged via:
- a) Plug-in Charger
 - b) Regenerative Braking
 - c) The Engine
 - d) All of The Above
9. The number, expressed as a percentage, that represents the amount of battery capacity left after degradation is:
- a) MPGe
 - b) State of Charge (SOC)
 - c) State of Health (SOH)
 - d) BCL
10. According to the IIHS, there are a reduced number of _____ in EV crashes.
- a) Witnesses
 - b) Injuries
 - c) Vehicles
 - d) Popped Tires


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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE ON "ELECTRIC VEHICLE DESIGN"

, 17/07/2023 to 21/07/2023

ASSESSMENT ANSWER

1.D

2. A

3. A

4.D

5. B

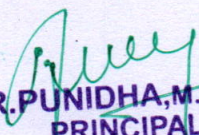
6. C

7.B

8.D

9.C

10.B


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VALUE ADDED COURSE ON "WEARABLE TECHNOLOGY" (02/01/2023 to 06/01/2023)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ASSESSMENT QUESTIONS

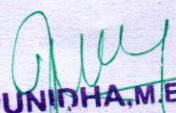
STUDENT NAME:

TOTAL MARKS: 10


REGISTER NUMBER:

DATE:

1. What are wearables?
 - A. Technological Gadget that people can wear
 - B. Clothes
 - C. Shoes
 - D. All kind of Technology
2. What is the version of IP addressing that wearable technology use?
 - A.ipv4
 - B.ipv6
 - C.ipv5
 - D.ipv3
3. What is a wearable health device?
 - A. Device to diagnose diseases
 - B. Device to monitor different health related measurements
 - C. A prescribed device from your computer
 - D. Device to detect illness
4. What is the benefit of tracking your sleep with a wearble health device?
 - A. Monitor trends to optimize your sleep
 - B. Helps you sleep better
 - C. Helps you to go to sleep faster
 - D. There is no benefit


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5. Wearable health devices can help your doctor in all of the following ways EXCEPT which one?
- A. Monitor activity levels
 - B. Monitor heart rate trends
 - C. Monitor weight
 - D. Monitor disease progression
6. Which of these devices can control by TV , Air conditioner and receiver ?
- A. Google glasses
 - B. Rings
 - C. Watches
 - D. All the above
7. How many types of wearable technology?
- A. 3 types
 - B. 2 types
 - C. 4 types
 - D. 5 types
8. What was the first wearable technology?
- A. Eye glasses
 - B. Lens
 - C. Watch
 - D. None of the above
9. What was the most popular wearable device?
- A. Apple Watch
 - B. Apple Air pods
 - C. Both A and B
 - D. None of the Above
10. What is the world's Largest Smart watch?
- A. Neptune Pine
 - B. Pulse Pine
 - C. Both A & B
 - D. None of the above


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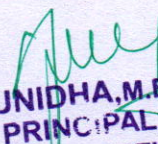
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VALUE ADDED COURSE ON “WEARABLE TECHNOLOGY” (02/01/2023 to 06/01/2023)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ASSESSMENT ANSWER KEY

1. A
2. B
3. B
4. A
5. D
6. D
7. B
8. A
9. C
10. A


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VALUE ADDED COURSE ON "PCB DESIGNING" (11/07/2023 to 15/07/2023)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ASSESSMENT QUESTIONS

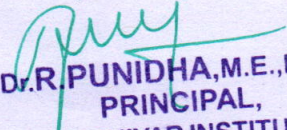
STUDENT NAME:

TOTAL MARKS: 10

REGISTER NUMBER:

DATE:

1. Metals of large areas embedded in PCB are known as _____?
 - a) Traces
 - b) Planes
 - c) Targets
 - d) Regions
2. Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?
 - a) Iron Soldering
 - b) Furnace Soldering
 - c) Torch Soldering
 - d) Electrical Soldering
3. What is/are the necessity/ies to provide guarding to precision differential amplifiers?
 - a) To increase leakage resistance
 - b) To reduce capacitance between signal conductors & ground
 - c) Both a and b
 - d) None of the above
4. What should be the resistance of 0.6 mm wide conductor with 15 cm length and 25 μm thickness of standard copper foil? (Assume $\rho = 1.7241 \times 10^{-6}$ (at 20° C)
 - a) 118.2 m Ω


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b) 138.2 mΩ

c) 172.4 mΩ

d) 192.4 mΩ

5. Which type of PCB requires minimum soldering on component side in order to avoid replacement oriented difficulties?

a) Single-sided PCB

b) Double-sided PCB

c) Both a and b

d) None of the above

6. What effects can be observed if the separate power and ground planes are provided with large conducting surfaces for better decoupling in PCB layouts?

a) Increase in self-inductance

b) Reduction in self-inductance

c) Stability in self-inductance

d) None of the above

7. High current circuits are purposely located or placed near the edge of PCB in accordance to the supply lines for _____

a) Removal of heat

b) Isolation of stray current

c) Reduction of path length

d) All of the above

8. Which phenomenon is not reduced by the circuit paths of lowest impedances especially provided by power and return planes for shielding purposes?

a) Radiation

b) Convection

c) Noise

d) Crosstalk

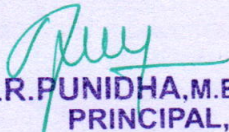
9. Which among the below mentioned approaches belongs to the category of In-circuit Testing?

a) Impedance Testing

b) Component Testing

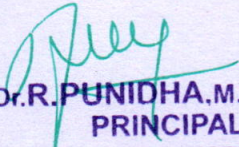
c) Apply Signal and check output

d) All of the above


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10. Which type of solderability testing is carried out for the generation of solder sample due to immersion of wire or sheet metal specimen in a bath of molten solder?

- a) Solder Bath Testing
- b) Meniscus Rise Testing
- c) Solder Iron Testing
- d) None of the above


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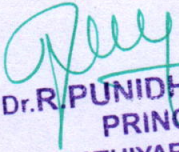
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VALUE ADDED COURSE ON “PCB DESIGNING” (11/07/2023 to 15/07/2023)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ASSESSMENT QUESTIONS

1. B
2. D
3. C
4. C
5. B
6. B
7. A
8. B
9. D
10. B


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DEPARTMENT OF SCIENCE AND HUMANITIES

ASSESSMENT QUESTIONS

VALUE ADDED COURSE ON "COMMUNICATION ENGLISH"

STUDENT NAME:

TOTAL MARKS: 10

REGISTER NUMBER:

DATE:

1. The English ___ won the world cup.

- A. is
- B. has
- C. have
- D. are

2. "Somebody ___ (Play) the drums". The simple past form of the word 'play' to fill the blank is ___

- A. played
- B. was playing
- C. had played
- D. had been playing

3. The first model of communication is said to have been developed by ___

- A. Plato
- B. Aristotle
- C. Ptolemy
- D. Steiner

4. Which of the following is a part of speech?

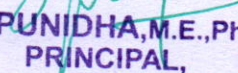
- a. Noun
- b. Pronoun
- c. Verb
- d. all of the above

5. What is a sentence?

- a. A group of ideas that form a complete paragraph
- b. A group of words that communicate a complete thought
- c. A set of rules that we must follow to write correctly
- d. A set of words that contains all the basic punctuation marks

6. Which of these are question words?

- a. What
- b. Where
- c. How
- d. All of the above


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7. The word 'Communication' comes from the Latin word *communicare*, meaning _____

- a. to give
- b. to know
- c. to share
- d. to follow

8. A simple sentence has ___ and ___.

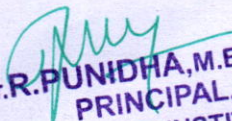
- A. subject and predicate
- B. subject and subordinate clause
- C. main clause and subordinate clause
- D. subject and the main clause

9. A _____ is a group of words that communicates a complete thought.

- a. Phrase
- b. Sentence
- c. Antonyms
- d. Synonyms

10. Which of the following is not the method of Communication?

- a. Verbal Communication
- b. Non-Verbal Communication
- c. Visible Communication
- d. None of the above


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ASSESSMENT QUESTIONS

VALUE ADDED COURSE ON "FUNDAMENTALS OF MATHEMATICS"
STUDENT NAME: TOTAL MARKS: 10
REGISTER NUMBER: DATE:

1-A line which cuts a pair of parallel lines is called

- (A) tangent
- (B) chord
- (C) transversal
- (D) intersector

2-An angle whose value is _____, is called complete angle.

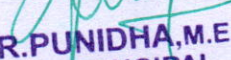
- (A) 180°
- (B) 240°
- (C) 360°
- (D) none of the above

3-The areas of two similar triangles are 81 sq. cm and 49 sq. cm. Find the ratio of their corresponding heights.

- (A) 9:7
- (B) 7:9
- (C) 6:5
- (D) 81:49

4-Consider $\triangle ABD$ such that angle $ADB = 20^\circ$ and C is a point on BD such that $AB=AC$ and $CD=CA$. Then the measure of angle ABC is

- (A) 30°
- (B) 40°
- (C) 45°
- (D) 60°


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5-If the length and breadth of a rectangle are increased by a% and b% respectively, then the area will be increased by

- (A) $(a-b+2ab/100)\%$

(B) $(a+b+2ab/100)\%$

(C) $(a+b+ab/100)\%$

(D) $(a-b+ab/100)\%$

6-A, B and C can complete a piece of work in 14, 6 and 12 days respectively. Working together, they will complete the work in

(A) 19/9 days

(B) 27 days

(C) 28/9 days

(D) 25/8 days

7-If $P^x = Q^y = R^z$ and $Q/P = R/Q$, then $2z/(x+z) = ?$

(A) y/z

(B) y/x

(C) x/y

(D) z/y

8-A shopkeeper purchases 15 mangoes for Rs. 10 and sells them at 10 mangoes for Rs. 15. Thus, he earns a profit of

(A) 50%

(B) 75%

(C) 80%

(D) 125%

9- $4950/6 + 112 \times 1.75 = ? \times 2$

(A) 510.5

(B) 505.2

(C) 515.5

(D) none of the above

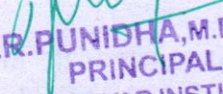
10-If a certain sum of money can become 5 times of its principal in 10 years, then the rate of interest is

(A) 20%

(B) 30%

(C) 40%

(D) 50%


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