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**Question Paper Code:92P10**

M.E DEGREE EXAMINATION, MAY 2024

CAD/CAM

Course work

19PCD510 METROLOGY AND NON DESTRUCTIVE TESTING SYSTEMS

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Describe the block diagram of generalized measurement system and explain different stages with examples CO1- U (20)  
Or  
(b) Discuss the use of computers in various measuring machines. Also explain a contemporary working model that uses computer for measurement CO1- U (20)
2. (a) Discuss the ABC standard used in sampling with suitable illustrations CO2- U (20)  
Or  
(b) Illustrate the importance of tolerance with reference to tool making. Also explain tolerance charts used in quality control CO2- U (20)
3. (a) Explain the principle of magnetic flaw detection. CO3-U (20)  
Or  
(b) Discuss the application of permanent, ferro and electromagnets in nano particle testing and analysis CO3- U (20)
4. (a) Explain about conductors and insulators functions in radiography CO4- U (20)  
Or  
(b) Describe about x-ray tube and its working with the help of diagram. CO4- U (20)

5. (a) Explain the functional nature of ultrasonic waves in detail. CO5-U (20)
- Or
- (b) Discuss the functions and application of instrumentation in anti lock braking system. CO5- U (20)