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Question Paper Code: 95P10

M.E.DEGREE EXAMINATION, MAY 2022

Elective

CAD / CAM

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 briefly about use of microscope in metrology. Also tabulate the classification, merits and demerits of microscope. CO1- U (20)
Or
(b) Illustrate the function of coordinate measuring machine in gear profile check with suitable drawings CO1- U (20)
2. (a) Discuss the construction and interpretation of mean chart and range chart. Also mention their functions and applications. CO2- U (20)
Or
(b) Describe the characteristics, functions, merits, demerits and applications of sequential sampling plan by attributes. CO2- U (20)
3. (a) Give a detailed report on applications, merits and demerits of magnetic particle test. CO3- U (20)
Or
(b) Illustrate the effect of ferro-magnetism in particle testing. CO3- U (20)
4. (a) Give the working principle, merits and demerits of AC and DC dynamo generator. CO4- U (20)
Or

- (b) State and explain how faradays laws of electrolysis is used to deduce radiation charts CO4- U (20)
5. (a) Describe in detail the properties and functions of different types of waves. CO5- U (20)
- Or
- (b) Explain in detail functions and applications of Pulse echo method CO5- U (20)