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Question Paper Code: 55P10

M.E.DEGREE EXAMINATION, NOV 2018

Elective

CAD / CAM

15PCD510 – METROLOGY AND NON DESTRUCTIVE TESTING

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Evaluate the importance of tool maker's microscope in current manufacturing methods. Also explain few applications that use TMM. CO1- E (20)

Or

- (b) Illustrate the working methodology of universal measuring machine with reference to computer aided manufacturing. CO1- E (20)

2. (a) The measurement X on an item follows a normal distribution with known standard deviation. The item is considered acceptable if X is large. Infer the acceptability based on SD values. Also infer SSP for a specified α and β . CO2- U (20)

Or

- (b) Describe the applications of permutation and combination with suitable case study. CO2- U (20)

3. (a) Examine the working, merits and demerits of magnetic crack detectors. CO3- U (20)

Or

(b) Examine the working merits and demerits of electromagnetic induction in particle testing. CO3- U (20)

4. (a) Discuss the difference of conductors and insulators. CO4- U (20)

Or

(b) State and explain how faradays laws of electrolysis is used to deduce radiation charts. CO4- U (20)

5. (a) Explain in detail functions and applications of Pulse echo method . CO5- U (20)

Or

(b) Explain in detail slosh compensation by damped and un damped methods. CO5- U (20)
