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**Question Paper Code: 55P10**

M.E.DEGREE EXAMINATION, NOV 2019

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) (i) Summarize the merits and demerits of ISM. CO1- U (10)  
(ii) Compare UMM and CMM with respect to functionality. CO1- U (10)

Or

- (b) Describe the block diagram of generalized measurement system and explain different stages with examples. CO1- U (20)

2. (a) (i) Classify the important indices for measuring process capability. CO2- U (20)  
(ii) Analyze the process capability of a production process. CO2- U (20)

Or

- (b) Summarize the sampling functional variables based on the control charts. CO2- U (20)

3. (a) Examine the applications, precautions and limitations in Magnetic particle test. CO3- U (20)

Or

- (b) Illustrate the working methodology of LPT with reference to computational fluid dynamics and computer aided simulation. CO3- U (20)

4. (a) Give the working principle, merits and demerits of AC and DC dynamo generator. CO4- U (20)

Or

(b) List out the Importance of film characteristics in reference to exposure charts. CO4- U (20)

5. (a) Explain the functional nature of ultrasonic waves in detail. CO5- U (20)

Or

(b) Describe the application and importance of magnetic resonance waves in medical scanning. CO5- U (20)

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