Roll No. | | | | | | | | | | |

B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2014

MANUFACTURING

Semester - 7

MN 503 / MF9035 – Electronics Manufacturing Tech.

(Regulation 2008 / 2004)

Time: 3 Hours | Answer ALL Questions | Max. Marks 100

PART A (10 x 2 = 20 Marks)

1. Define microlithography.
2. What are the steps involved in etching process?
3. Differentiate die bonding and wire bonding.
4. What are the advantages of multi-chip module?
5. List out the safety aspects in surface mount technology.
6. Define stencil printing.
7. List out the inspection methods used for circuit board.
8. What are the defects due to soldering process.
9. Why do we give importance for thermal effects.
10. How to give importance for environmental aspects in electronic manufacturing?

Part – B (5 x 16 = 80 marks)

11. i) With a block diagram, explain the manufacturing of printed circuit board? (10)
    ii) Explain briefly the principle of diffusion process? (6)

12. a) i) A printer board is to be designed and packed by through hole technology. Explain the procedure. (10)
    ii) Explain on embedded packaging. (6)

(OR)

b) Briefly explain on with example:
i) Direct chip array module ii) Active and passive connection.

13 a) With a block diagram explain the principle of surface mount technology process?

(OR)

b) Briefly explain on:

i) Automated assembly packaging ii) Encapsulation process.

14. a) Explain the procedure to test a circuit board soldering joint by image processing?

(OR)

b) i) Explain on the electrical testing of PCB? (8)

ii)How does in circuit test differ from functional test. Illustrate with an example?(8)

15. a) Explain the importance of thermo-mechanical effect in the electronic manufacturing. Explain with a suitable industrial application?

(OR)

b) Briefly explain on

i) Reliability testing ii) Design for manufacturability

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