Arab Academy for Science & Technology & Maritime Transport
College of Engineering & technology
Electronics & Communication Engineering Department

Course: MEMS **Course Code:** EC 530

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MCQ set#5: Microfabrication and micromachining methods

1. Frequency of oscillation in Microultrasonic Machining is:
a) 20GHz
b) 20MHz
c) 20KHz
d) None of the above

2.The silicon diaphragm is the basic structure used in:
a) Microengineered pressure sensor.
b) Voltage sensor.
c) Actuators.
d) Relays.

3. One of the applications of Bulk micromachining is :
a) SAW sensor
b) Resonant sensor
c) Temperature sensor
d) Pressure sensor

4. …… is the most used in silicon micromachining:
a) Laser micromachining.
b) Micro Electro-Discharge machining.
c) Bulk machining.
d) Powder Blasting.

5. One of the most used kinds of lasers in microfabrication is:
a) Excimer
b) Diamond milling
c) Bulk micromachining
d) None of the above

6. Which of these is a material removal method :
a) Laser Micromachining
b) Laser Microelectronic
c) Laser Electro-Discharge
d) None of the above

7. Excimer stands for:
a) Excellent dimer
b) Excelled dimer
c) Excited dimer
d) None of the above

8. Excimer laser is used for the micromachining of :
a) Metallic materials
b) Compound materials
c) Organic materials
d) All of the above

9. .....process is also called spark erosion
a)U ultrasonic machining
b) Powder blasting
c) Soft lithography
d) Micro electro discharge machining

10. .....method removes material through erosive action:
a) Diamond milling
b) Soft lithography
c) Micro-electro discharge machining
d) Powder blasting

11. The Erosion rate of powder blasting is:
a) 1 mm/sec
b) 1 mm/min
c) 1 mm/hour
d) 1mm/day

12. particle speed of powder blasting is in the range of:
a) 80—200 ms
b) 80—400 ns
c) 80—200 ns
d) 80—200 s

13. The simplest plasma reactor consists of:
a) One plate electrodes
b) Two plate electodes
c) Four plate electrodes
d) Eight plate electrodes

14. Combination of..... is used to form sharp points:
a) Dry and isotropic wet etching
b) Dry and anisotropic wet etching
c) a&b
d) None of the above

15. ..... is a material removal method
a) Surface micromachining
b) Micro stereo Lithography
c) LIGA
d) None of the above

16. the full wafer thickness range is:
a) 100 to 300 um
b) 600 to 800 um
c) 200 to 500 um
d) 200 to 500 mm

17. focused ion beam milling is..... process
a) Anisotropic
b) Wet isotropic
c) Electromechanical
d) X-ray lithography

18. .....is anisotropic milling method:
a) Diamond milling
b) LCD milling
c) a&b
d) None of the above