



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

Electronics & Communication Engineering Department

Course: MEMS

Course Code: EC 530

Instructor: Prof. Hazem H. Ali

GTA: Eng. Fadi S. AYAD

MCQ set#2: RF MEMS & Electronics applications

Model Answer

Choose the most proper answer:

1. Vehicle dynamic control systems help the driver to:

- a) Control the stability of the vehicle
- b) Controls the roll angle of the vehicle.
- c) Moves with a higher acceleration.
- d) Regain control of the automobile when it starts to skid

2. Active suspension system consists of :

- a) ECU
- b) Adjustable shocks
- c) Springs
- d) All of the above

3. The disadvantages of active suspension includes:

- a) Price
- b) Complexity
- c) Weight and high power consumption
- d) All of the above

4. Which of the following is an active safety feature:

- a) Airbags
- b) Vehicle dynamic control systems
- c) Electronic stability program
- d) All of the above

5. system has capability to adjust it self to continuously changing road condition:

- a) Active suspension
- b) Electro-hydraulic
- c) Pressure measuring
- d) All of the above

6. Active suspension system consists of :

- a) ECU
- b) Adjustable shocks
- c) Springs
- d) All the above

7. Passive safety features incorporated into the design of the car, driver cannot control them.

- a) Mechanical.
- b) Electrical.
- c) Structural.
- d) None of the above.

8. ESP stands for:

- a) Electronic stability program
- b) Electric stability program
- c) Electronic slip program
- d) None of the above

9. MEMS polychromatic can be used in:

- a) Guidance systems
- b) Detection of explosions
- b) Navigation systems
- d) Detecting toxic gases

10. Examples for military applications of MEMS are.....

- a) Integrated fluidic systems
- b) Weapons saving, arming and fusing
- c) Passive safety
- d) a & b

11.....are used to identify whether the opponent is friend or foe.

- a) Pico satellites.
- b) MOICS
- c) Guidance and navigational systems.
- d) none of the above

12.are used to detect people hiding in the caves or underground bunkers:

- a) Guidance and Navigational systems
- b) MEMS Magnetometers
- c) Aerodynamics control of fighter jets
- d) Explosions detectors

13. Which of the following is an active safety feature:

- a) Airbags
- b) Vehicle dynamic control systems
- c) Electronic stability program
- d) All of the above

14. For fighter jets, MEMS sensors can measure:

- a) Pitch
- b) Yaw
- c) Roll
- d) All of the above

15. MEMS technology can be used to implement:

- a) Switches
- b) Inductors
- c) Resonators and filters
- d) All of the above

17. The goal of RF MEMS in telecommunication is to:

- a) Miniaturize the transceiver circuit
- b) Make new designs
- c) Reduce the cost
- d) None of the above

19. The frequency range of the Satellite Communication is:

- a) 12-35 GHz
- b) 0.8-6 GHz
- c) 0.01-50 GHz
- d) 10-500 KHz

21. RF MEMS switching speed is:

- a) 2 – 30 μ s
- b) 2 – 40 μ s
- c) 2 – 50 μ s
- d) None of the above

23. Advantages of RF MEMS switches:

- a) Better RF performances
- b) Low power consumption
- c) High-Q, Low Loss
- d) All of the above

25. Increasing printing quality and speed is done by:

- a) Reducing droplet size
- b) Increasing the number of channels per head
- c) Increasing ejection rates
- d) All of the above

27. Wrist-top systems can measure:

- a) Pace
- b) Distance
- c) Heart rate
- d) All of the above

16. Advantages of RF MEMS:

- a) Very wide coverage area
- b) Ultra high RF loss
- c) Low power consumption
- d) All of the above

18. RF MEMS are used to replace:

- a) Active components
- b) Passive components
- c) Batteries
- d) None of the above

20. The frequency range of surface acoustic wave filter is:-

- a) 12-35 GHz
- b) 0.8-6 GHz
- c) 10 MHz-3 GHz
- d) 20 MHz-10 GHz

22. RF MEMS switches types are:

- a) Contact switches
- b) Contact-less switches
- c) Spiral switches
- d) a & b

24. RF MEMS switches consist of:

- a) The switch itself
- b) Dielectric layer
- c) Substrate
- d) All of the above

26. Modern projection displays are based on:

- a) Digital Micro-mirror Device
- b) Micro lenses
- c) Microwaves
- d) All of the above

28. Smart shirt system can measure:

- a) ECG
- b) Blood pressure
- c) Humidity
- d) a & b

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