



Department of Electrical and Electronics Engineering

EE8691- Embedded Systems

Unit I - MCQ Bank

1. Which of the following allows the reuse of the software and the hardware components?

A. Platform based design

B. Memory design

C. Peripheral design

D. Input design

Answer: (A)

2. Which of the following is the design in which both the hardware and software are considered during the design?

A. Platform based design

B. Memory based design

C. Software/hardware co-design

D. Peripheral design

Answer: (C)

3. Embedded hardware/ software systems are basically designed to

A. Measure / Read the state of a variable / device

B. Change the state of some device

C. Both (a) and (b)

D. None of the above

Answer: (C)

4 . Which of the following processor architecture support easier instructions pipelining?

- A. Harvard**
- B. Von Neumann
- C. Both of these
- D. None of the above

Answer: (A)

5. An embedded system can be defined as a control system or computer system designed to perform a specific task.

- A. True**
- B. False

Answer: (A)

6. How is the protection and security for an embedded system made?

- A. OTP
- B. IPR**
- C. Memory disk security
- D. Security chips

Answer: (B)

7. Which of the following can be adopted for the systems which does not contain DMA controller for data transmission?

- A. Counter
- B. Timer
- C. Polling**
- D. Memory

Answer: (C)

8. How many address register are there for the 1D type DMA controller?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: (A)

9. Which signal allows the DMA controller to select the peripheral?

- A. **Local Peripheral Control**
- B. Global Peripheral Control
- C. Address Bus
- D. Data Bus

Answer: a

10. Which of the following is replaced with the absolute addressing mode?

- A. **Relative Addressing Mode**
- B. Protective Addressing Mode
- C. Virtual Addressing Mode
- D. Temporary Addressing Mode

Answer: (A)

11. What is the main purpose of the memory management unit?

- A. **Address Translation**
- B. Large Storage
- C. Reduce The Size
- D. Provides Address Space

Answer: (A)

12. In there is no internal fragmentation and is a more efficient use of main memory.

- A. Fixed partitioning
- B. Dynamic partitioning**
- C. Virtual memory paging
- D. Simple segmentation

Answer: (B)

13. In there is not necessary to load all of the segments of a process and non-resident segments that are needed are brought in later automatically.

- A. Fixed partitioning
- B. Simple Paging
- C. Virtual memory segmentation**
- D. Simple segmentation

Answer: (C)

14. Which of the following is/are the different memory management techniques.

- i) Fixed partitioning ii) Dynamic paging iii) Simple paging iv) Simple segmentation
- A. i, ii and iii only
 - B. ii, iii and iv only
 - C. i, iii and iv only**
 - D. All i, ii, iii and iv

Answer:(C)

15. Which bit size determines the slowest frequency?

- A. COUNTER SIZE
- B. PRE-SCALAR VALUE**
- C. COUNTER
- D. TIMER

Answer: (B)

16. Which of the following is a real time clock?

- A. **MC146818**
- B. 8253
- C. 8259
- D. 8254

Answer: (A)

17. What is the function of watchdog timer?

- A. The watchdog Timer is an external timer that resets the system if the software fails to operate properly.
- B. The watchdog Timer is an internal timer that sets the system if the software fails to operate properly.
- C. **The watchdog Timer is an internal timer that resets the system if the software fails to operate properly.**
- D. None of them

Answer: (C)

18. The watchdog counts up and resets the MSP430 when it reaches the limit?

- A. **True**
- B. False
- C. Cant Be Said
- D. Depends On The Conditions

Answer: (A)

19. In real time operating system _____

- A. All Processes Have The Same Priority
- B. **A Task Must Be Serviced By Its Deadline Period**
- C. Process Scheduling Can Be Done Only Once

D. Kernel Is Not Required

Answer: (B)

20. For real time operating systems, interrupt latency should be _____

A. Minimal

B. Maximum

C. Zero

D. Dependent On The Scheduling

Answer: (A)

21. In which scheduling certain amount of CPU time is allocated to each process?

A. Earliest Deadline First Scheduling

B. Proportional Share Scheduling

C. Equal Share Scheduling

D. None Of The Mentioned

Answer: (B)

22. Which one of the following is a real time operating system?

A. Rtlinux

B. Vxworks

C. Windows Ce

D. All Of The Mentioned

Answer: (D)

23. The problem of priority inversion can be solved by _____

A. Priority Inheritance Protocol

B. Priority Inversion Protocol

C. Both Priority Inheritance And Inversion Protocol

D. None Of The Mentioned

Answer: (A)

24. Which component is replaced by an in-circuit emulator on the development board for testing purposes?

- A. Ram
- B. I/o ports
- C. Micro-controller ic**
- D. All of the above

ANSWER: (C)

25. Which facility provides the provision of the debug ports in the ICE technique?

- A. Simulator
- B. Emulator
- C. Debug Support**
- D. Jtag

Answer: (C)