Department of Electronics and Communication Engineering
EC8691-Microprocessors and Microcontrollers
UNIT III I/O INTERFACING
MCQ BANK

1. The serial communication is
   a) cheaper communication
   b) requires less number of conductors
   c) slow process of communication
   d) all of the mentioned
   ANSWER: d) all of the mentioned

2. The number of bits transmitted or received per second is defined as
   a) transmission rate
   b) reception rate
   c) transceiver rate
   d) baud rate
   ANSWER:d) baud rate

3. The transmission unit does not require assistance from processor if once a byte for transmission is written to
   a) SCON register
   b) SBUF register
   c) SFR address
   d) Any of the mentioned
   ANSWER:b) SBUF register

4. During serial reception, the buffer that receives serial bits and converts to a byte is
   a) receive buffer 0
   b) receive buffer 1
   c) receive buffer 2
   ANSWER:b) receive buffer 1

5. In mode 2, the baud rate depends only on
   a) SMOD bit
   b) SCON bit

c) Oscillator clock frequency
d) SMOD bit and oscillator clock frequency
ANSWER:d) SMOD bit and oscillator clock frequency

6. The mode that offers the most secured parity enabled data communication at lower baud rates is
a) mode 2
b) mode 1
c) mode 0
ANSWER:a) mode 2

7. DAC (Digital to Analog Converter) finds application in
a) digitally controlled gains
b) motor speed controls
c) programmable gain amplifiers
d) all of the mentioned
ANSWER:d) all of the mentioned

8. To save the DAC from negative transients the device connected between OUT1 and OUT2 of AD 7523 is
a) p-n junction diode
b) Zener diode
c) FET (Field Effect Transistor)
d) BJT (Bipolar Junction Transistor)
ANSWER:b) Zener diode

9. The DAC 0800 has a settling time of
a) 100 milliseconds
b) 100 microseconds
c) 50 milliseconds
d) 50 microseconds
ANSWER:a) 100 milliseconds

10. The device that is used to obtain an accurate position control of rotating shafts in terms of steps is
a) DC motor
b) AC motor
c) Stepper motor
d) Servo motor

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ANSWER:c) Stepper motor

11. Electro-optical effect is produced in _____
    a) LED
    b) LCD
    c) OFC
    d) OLED
    ANSWER:b) LCD

12. LCDs operate from a frequency ranges from _____
    a) 10Hz to 60Hz
    b) 50Hz to 70Hz
    c) 30Hz to 60Hz
    ANSWER:c) 30Hz to 60Hz

13. In 7 segment display, how many LEDs are used?
    a) 8
    b) 7
    c) 10
    d) 9
    ANSWER:b) 7

14. The registers that store the keyboard and display modes and operations programmed by CPU are
    a) I/O control and data buffers
    b) Control and timing registers
    c) Return buffers
    d) Display address registers
    ANSWER:b) Control and timing registers

15. The digital input for a 4-bit DAC is 0110. Calculate its final voltage.
    a) 6V
    b) 10V
    c) 4.5V
    d) 22V
    ANSWER:a) 6V

16. In Memory Mapped Scheme the devices are viewed as
    a) Distinct I/O devices
    b) Memory locations

c) Only input devices
d) Only output devices

ANSWER:b) Memory locations

17. Port-C of 8255 can independently function as
    a) Input port
    b) Output port
    c) Either input or output ports
    d) Both input or output ports

    ANSWER:c) Either input or output ports

18. How many modes of operation are possible in 8253 Timer/Counter?
    a) 7
    b) 5
    c) 3
    d) 6

    ANSWER:d) 6

19. In 8086 based alarm system, the address location for control register is
    a) 04_H
    b) OC_H
    c) OE_H
    d) $0E_H$

    ANSWER:d) $0E_H$

20. If the microprocessor has 10 address lines, then the number of memory locations it is able to address is
    a) 512
    b) 1024
    c) 2048

    ANSWER: b) 1024

21. In static memory, the upper 8-bit bank of an available 16-bit memory chip is called
    a) upper address memory bank
    b) even address memory bank
    c) static upper memory
    d) odd address memory bank

    ANSWER: d) odd address memory bank

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22. In most of the cases, the method used for decoding that may be used to minimize the required hardware is
    a) absolute decoding
    b) non-linear decoding
    c) linear decoding
    ANSWER: c) linear decoding

23. The operation, IOWR (active low) performs
    a) write operation on input data
    b) write operation on output data
    c) read operation on input data
    d) read operation on output data
    ANSWER: b) write operation on output data

24. To avoid loading during read operation, the device used is
    a) latch
    b) flip flop
    c) buffer
    d) tristate buffer
    ANSWER: d) tristate buffer

25. If at a time A_o and BHE(active low) both are zero then, the chip(s) selected will be
    a) RAM
    b) ROM
    c) RAM and ROM
    d) ONLY RAM
    ANSWER: c) RAM and ROM

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