Question block created by wizard.

This exam contains 40 questions

1. Which instruments form the "Basic T" ?

a. Altimeter, Airspeed Indicator, Directional Gyro, Artificial Horizon.
b. Altimeter, Vertical Speed Indicator, Directional Gyro, Airspeed Indicator.
c. Altimeter, Turn Coordinator, Artificial Horizon, Vertical Speed Indicator.

2. What does EFIS mean ?

a. Electronic Flight Instrument System
b. Electronic Flight Information System
c. Enhanced Flight Information System

3. What instrument is shown in this PFD?

a. This is an Electronic Attitude Direction Indicator (EADI)
b. This is an Electronic Horizontal Situation Indicator (EHSI)
c. This is an altimeter

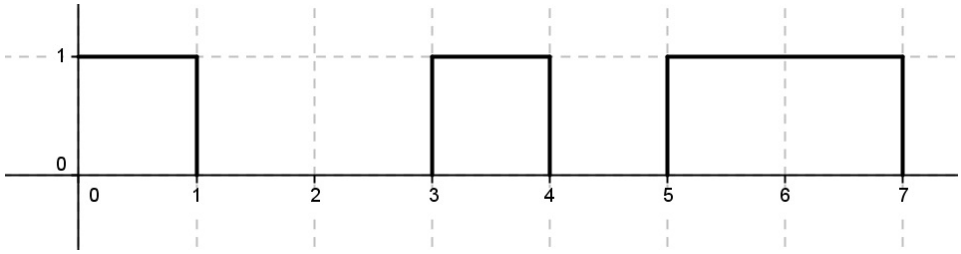
4. A hexadecimal number is a number to base....

a. 2
b. 8
c. 16

5. A computer message 3B4 is

a. hexadecimal
b. octal
c. binary

6. What type is the hooked signal in this picture?



a. A binary signal.
b. An analogue signal.
c. A octal signal.

7. Physical variables, such as voltage or angular rotation of a shaft are....

a. digital.
b. analogue.
c. logic.

8. How many bits does the SSM (Sign & Status Matrix) contain in an ARINC429 word?

a. 8 bits.
b. 2 bits.
c. 4 bits.

9. What is a parity check?

a. Sending an additional bit in a data-word transmission for synchronisation checking.
b. Sending an additional bit in a data-word transmission for error checking.
c. Sending an additional bit in a data-word transmission for bit filling checking .

10. What kind of communication is being used by ARINC429?

a. Simplex.
b. Half duplex.
c. Duplex.

11. What is a "frame" in an Ethernet based network?

This is the basic building block of the....

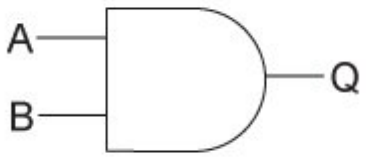
a. messages being relayed over the Ethernet.
b. ethernet devices such as computers.
c. central Ethernet computer in a LAN.

12. What is the function of a "broadcast" in an Ethernet LAN?

This is a message intended for....

a. all nodes in the network.
b. a group of nodes in the network.
c. only one node in the network.

13. What type of logic gate is shown here?

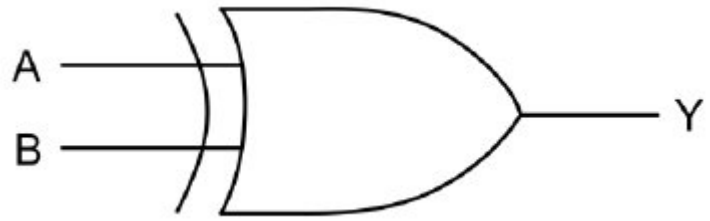


a. OR gate.
b. AND gate.
c. EXNOR gate.

14. What is meant by the expression "negative logic"?

a. This means that the output voltages are negative with respect to ground.
b. The logic "1" state is at a more negative voltage than the logic "0" state.
c. This means that all outputs are inverted.

15. Which truth table belongs to the schematic shown here?



a.

A	B	Output
0	0	0
0	1	1
1	0	1
1	1	0

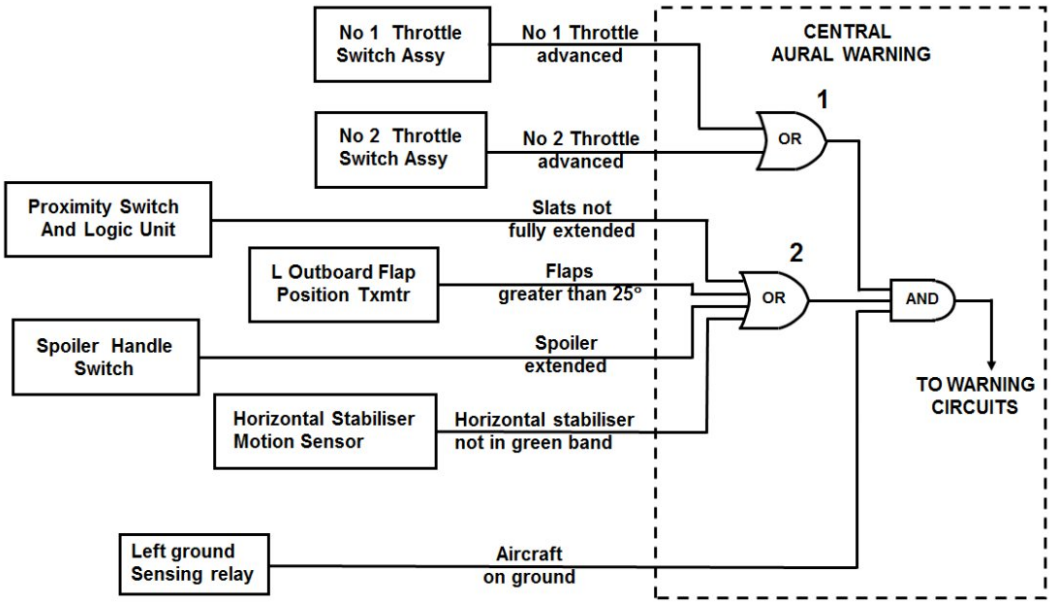
b.

A	B	Output
0	0	0
0	1	1
1	0	1
1	1	1

c.

A	B	Output
0	0	0
0	1	1
1	0	0
1	1	0

16. In which situation is it possible to generate a take-off warning?



a. If the flap position is greater than 25° in flight.
b. Only on the ground.
c. The spoilers are extended in flight.

17. A schematic or functional diagram is usually drawn with the inputs.....

a. up and the outputs down.
b. left and the outputs right.
c. right and the outputs left

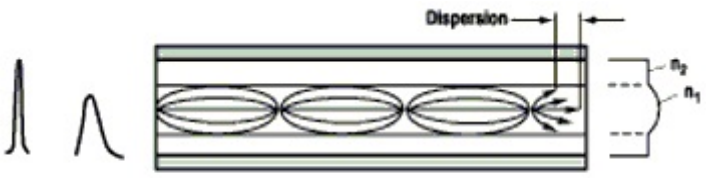
18. Which of the following buses in a computer is only uni-directional?

a. Data bus.
b. Address bus.
c. Control bus.

19. What type of memory is used in Flight Data Recorders?

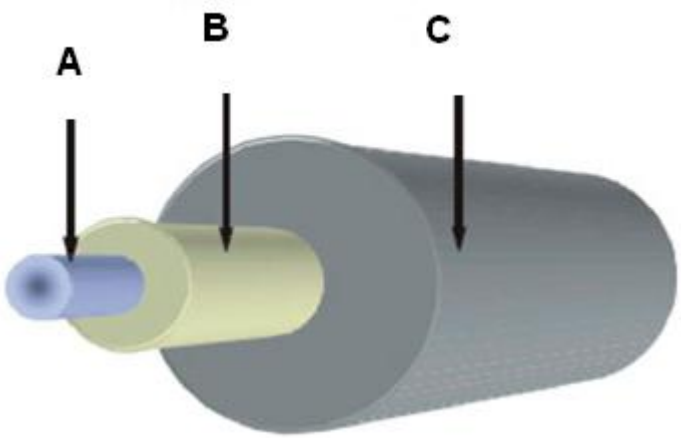
a. A hard disk.
b. A magnetic tape.
c. EPROM

20. What type of fibre optic is shown here?



a. Multi-Mode Grade Index.
b. Single-Mode Step Index.
c. Multi-Mode Step Index.

21. What is name of the part (indicated with arrow B) as shown in the picture?

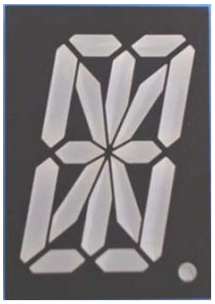


a. Coating
b. Cladding
c. Core

22. Why are standard copper twisted-pair cables used for ARINC-429 signals replaced by Fibre Optics in modern aircraft?

a. Cheaper to manufacture
b. Less weight
c. Fibre optics is standardized in the aviation industry.

23. What type of display is shown here?



a. This is a matrix display.
b. This is a starburst display.
c. This is a 12-segment display.

24. What type of display is shown here?

a. LCD Display
b. LED Display
c. CRT Display

25. What driving method prevents a lot of connections when using many equipment?

a. Multiplexing.
b. Connection striping.
c. Demultiplexing.

26. How are ESD sensitive devices marked?

a. By a yellow label with black text that warns to use precautions when handling.
b. By a yellow label with red text that warns to use precautions when handling.

c. By a black label with yellow text that warns to use precautions when handling.

27. What is the best precaution to prevent Electro Static Damage?

a. To un-charge yourself by touching a metal part of the casing you are working on.
b. To use a special workbench with non-static covering.
c. To use a grounded wrist-wrap protection.

28. How is the edge connector of an electronic PCB protected for ESD?

a. A special connector with short-circuited leads is used.
b. A specially formed strip called a shunt is used.
c. A plastic bag that exactly fits the board is used.

29. What is a danger of ESD induced damage?

a. This can degrade a unit or device, which can eventually fail.
b. This can cause electrical injuries to crew and passengers.
c. This may cause physical problems for the maintenance engineer.

30. Which airborne software safety classifications do effect the flight safety?

a. Level A + C
b. Level D + E
c. Level B + E

31. What is a guidance for avionics software development and certification?

a. The aircraft Minimum Equipment List (MEL)
b. The Aircraft Maintenance Manual (AMM)
c. Document DO-178/ED-121

32. May the User Modifiable Software (UMS) be modified by the aircraft operator?

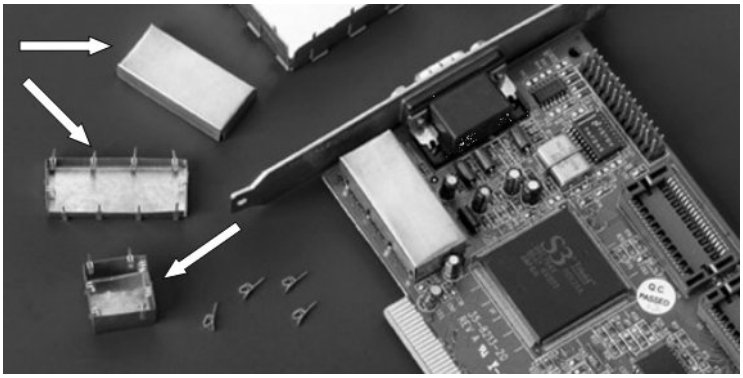
a. Yes, without review by the Civil Aviation Authority (CAA).
b. Never during the flight.
c. Yes, only with review by the Civil Aviation Authority (CAA).

33. What type of EMC can interfere with an unbalanced circuit?

a. Only inductive pickup
b. Both inductive and capacitive pickup.

c. Only capacitive pickup.

34. Looking at this picture, how are the copper boxes named?



a. Shielding
b. Bonding cages
c. EMD boxes

35. How is the static charge caused by lightning fed through the aircraft?

a. By the use of static dischargers on preferred exit points, like the wingtips.
b. By using bonding strips to conduct the high currents, preventing serious damage.
c. By use of special surge protection devices, that short-circuit the generated current.

36. In which direction is ACARS information transmitted?

a. Both directions are used, because it is a communication system..
b. From air to ground only, because it transmits aircraft data.
c. From ground to air only, because it is an information service.

37. If the auto-pilot is on, what is the action of an FMS when the actual course deviates from the programmed course?

It will immediately....

a. inform the pilot to take action to correct the deviation.
b. take action and correct the aircraft heading by steering the aircraft.
c. take action and send a steering command to the autopilot.

38. What does mode-C mean on a transponder?

The transponder sends also....

a. vertical speed information.

b. altitude information.
c. airspeed information.

39. One of the benefits of Integrated Modular Avionics (IMA) is lower weight. This is accomplished by.....

a. using lighter materials for avionics.
b. using less Line Replaceable Units (LRU's)
c. using less aircraft systems.

40. What is a BITE ?

a. 8 Bits
b. Boeing Interface Test Equipment
c. Build In Test Equipment