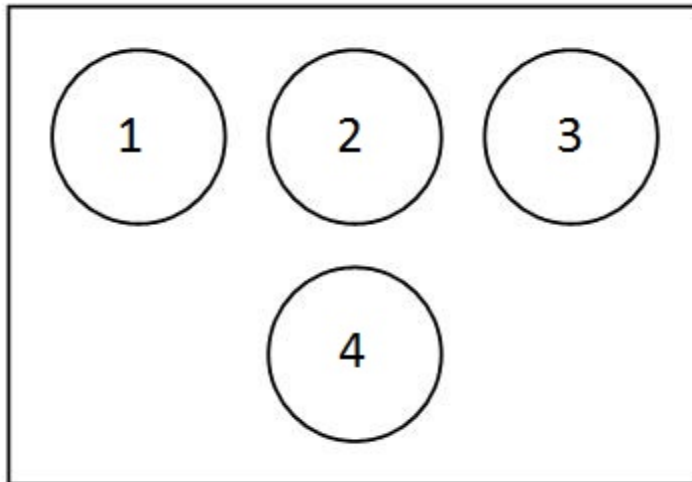


Question block created by wizard.

This exam contains 40 questions

1. When looking at the basic T in the figure, what instrument is located at position indicated with number 2?



- (a) The artificial horizon.
- o (b) The airspeed indicator.
- o (c) The altitude indicator.

If choice a is selected set score to 1.

2. What is the name of the system used in collision avoidance?

- (a) ACAS/TCAS.
- o (b) ACARS.
- o (c) RAS.

If choice a is selected set score to 1.

3. A blue annunciation means....

- (a) An indication for temporary normal system action.
- o (b) A partial system malfunction caution.
- o (c) An auto pilot mode annunciation.

If choice a is selected set score to 1.

4. How many elements uses the hexadecimal system?

It uses...

- (a) 8 elements.
- (b) 4 elements.
- (c) 16 elements.

If choice c is selected set score to 1.

5. Convert $65_{(16)}$ to the binary number system.

- (a) 1100 1010
- (b) 0101 0110
- (c) 0110 0101

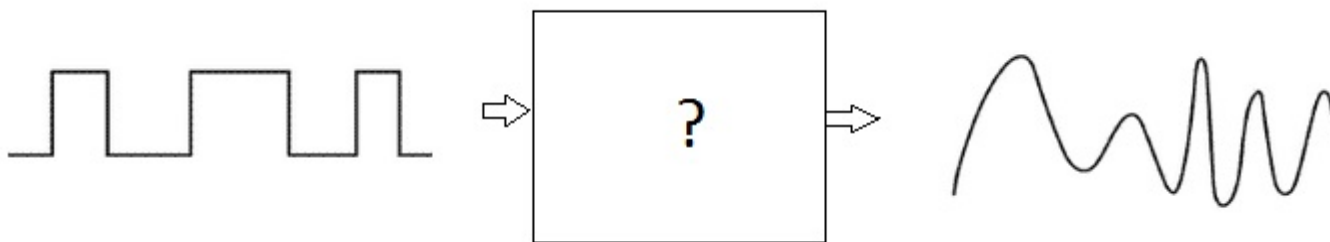
If choice c is selected set score to 1.

6. What type of converter is the fastest for analogue to digital conversion?

- (a) Flash ADC
- (b) Integration ADC
- (c) Charge Balancing ADC

If choice a is selected set score to 1.

7. What is the function of the block marked with "?" in this figure?



This is....

- (a) a SAR.
- (b) an ADC.
- (c) a DAC.

If choice c is selected set score to 1.

8. The ARINC 429 data-bus uses a....

- (a) 8 bit label and 8 bit of data word.
- (b) 8 bit label and 16 bit of data word.
- (c) 8 bit label and 24 bit of data word.

If choice c is selected set score to 1.

9. An ARINC 629 data bus stub cable is the connection between...

- (a) bus coupler and connected line replaceable unit.
- (b) different bus couplers.
- (c) bus coupler and terminal resistor.

If choice a is selected set score to 1.

10. Where is the ARINC429 high speed transmission rate used for?

- (a) Cabin interphone system only.
- (b) Flight critical systems.
- (c) Flight non-critical systems.

If choice b is selected set score to 1.

11. The carrier-sense multiple access with collision detection (CSMA/CD) system in the ethernet protocol is used to prevent....

- (a) signal weakening over a long distance.
- (b) for interference from adjacent devices.
- (c) the access of multiple devices to the ethernet at the same time.

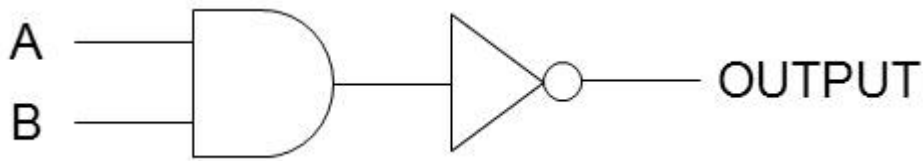
If choice c is selected set score to 1.

12. Where are the repeaters in an ethernet medium used to?

- (a) To increase the network diameter.
- (b) To transmit a broadcast address.
- (c) To construct a destination address.

If choice a is selected set score to 1.

13. What is the function of this logic circuit?



- (a) And
- (b) Nand
- (c) Nor

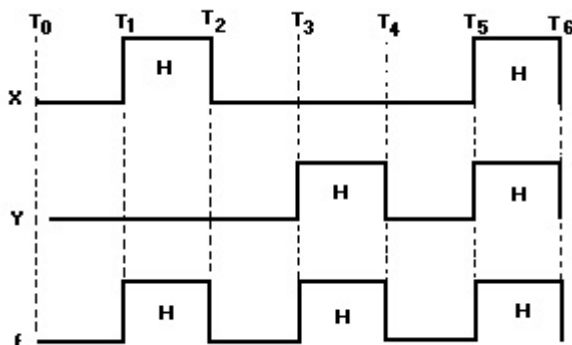
If choice b is selected set score to 1.

14. What is the meaning of "Fan out"?

- (a) The maximum number of inputs that the output of a single logic circuit can feed.
- (b) The maximum output voltage of a particular logic circuit.
- (c) The maximum number of inputs that a single logic circuit can accept.

If choice a is selected set score to 1.

15. What gate is represented by the time-diagram shown here?



- (a) OR gate.
- (b) EXOR gate.
- (c) EXNOR gate.

If choice a is selected set score to 1.

16. In which way are schematic or functional diagrams usually drawn?

- (a) From up to down.

- (b) From left to right.
- o (c) From right to left.

If choice b is selected set score to 1.

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

- o (a) right and the outputs left
- o (b) up and the outputs down.
- (c) left and the outputs right.

If choice c is selected set score to 1.

18. What is the purpose of the demultiplexer?

- o (a) To take many inputs and sending it to one output.
- o (b) To amplify an input and sending it to one output.
- (c) To take one input and sending it to one of many outputs.

If choice c is selected set score to 1.

19. How do we erase the data content of an Eprom?

- (a) With a burst of ultra-violet light.
- o (b) By removing the power.
- o (c) By exposing it to an electrical charge.

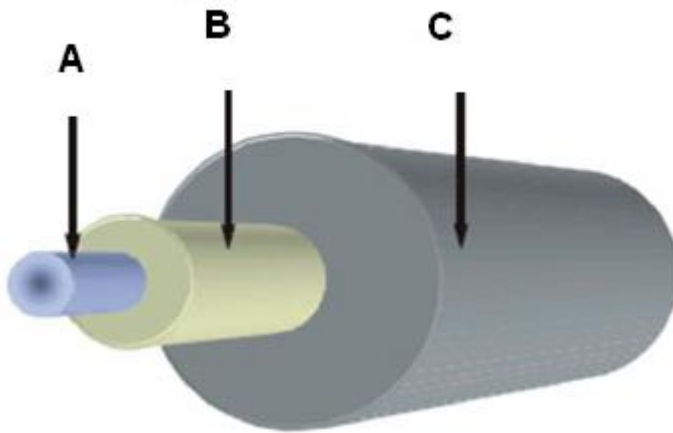
If choice a is selected set score to 1.

20. What is transmitted through a fibre optic cable?

- o (a) Electrical signals
- o (b) Magnetic Energy
- (c) Radiant power

If choice c is selected set score to 1.

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



- (a) Coating
- (b) Core
- (c) Cladding

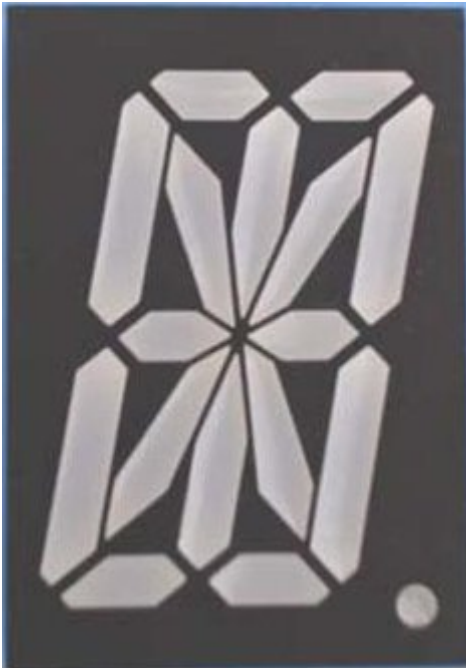
If choice c is selected set score to 1.

22. What is the biggest advantage to use fibre optics for angular rate sensing (gyroscopes)?

- (a) There are low losses for high frequency signals.
- (b) They are not affected by magnetic fields.
- (c) You can transmit over long distances.

If choice b is selected set score to 1.

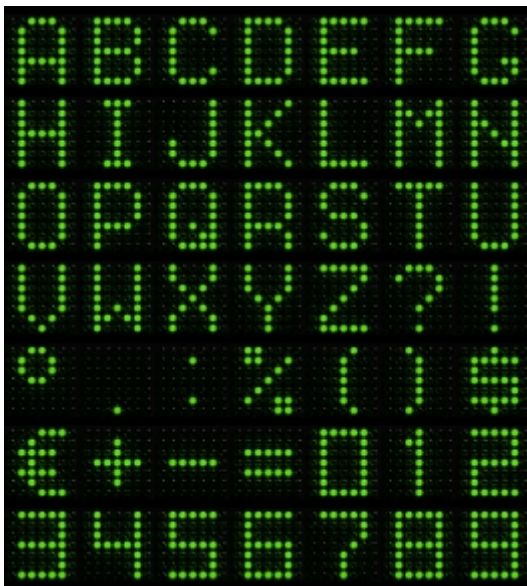
23. What type of display is shown here?



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

If choice c is selected set score to 1.

24. What type of display is shown here?

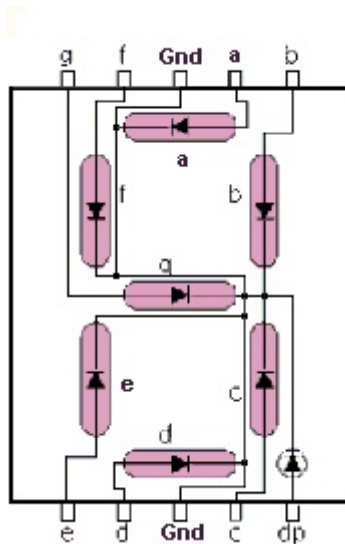


- (a) LCD Display
- (b) CRT Display

- (c) LED Display

If choice c is selected set score to 1.

25. What is the connection method called of the display shown here?



- o (a) Common Anode.
- o (b) Multiplexed.
- (c) Common Cathode.

If choice c is selected set score to 1.

26. At which circumstance is it necessary to wear a wrist strap?

- o (a) Only when the power source is switched on.
- o (b) When changing an electrically sensitive computer mounted in a metal cabinet (LRU).
- (c) When changing a power printed circuit board.

If choice c is selected set score to 1.

27. What is meant by static electricity?

- (a) Electrical charge at rest.
- o (b) An electric voltage without any user.
- o (c) Electric energy in a battery.

If choice a is selected set score to 1.

28. Some materials can be positively- or negatively charged.

Which material can hardly be charged at all?

- (a) PVC pipes
- (b) Cotton wire
- (c) Nylon wool

If choice b is selected set score to 1.

29. What is in equipment the maximum contact or bonding resistance?

- (a) 1 mega ohm.
- (b) 100 Ohm
- (c) 0.05 Ohm

If choice c is selected set score to 1.

30. When software is classified a level E, what may be the consequences for occupants of the aircraft?

- (a) There may be discomfort, possibly including for the occupants.
- (b) There will be slight inconvenience for the occupants.
- (c) There will be no effect or consequences for the occupants.

If choice c is selected set score to 1.

31. What does the abbreviation FLS mean?

- (a) Field Loadable Software.
- (b) Field Loading System
- (c) Flight Leading Software.

If choice a is selected set score to 1.

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

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

If choice c is selected set score to 1.

33. What is an example of an EMI external noise producing source?

- (a) The radiation of a display.
- (b) Cosmic noise from objects in space.
- (c) The energy pulses produced by the anti-collision light system.

If choice c is selected set score to 1.

34. How can you achieve HIRF immunity for multilayer circuit boards?

- (a) By full voltage and ground planes between the board layers.
- (b) By static dischargers.
- (c) By aircraft structure bonding.

If choice a is selected set score to 1.

35. What is the most important step to do during an after-lightning strike inspection?

- (a) Inspection for burn spots and pitted areas.
- (b) An operational avionics test.
- (c) Movement of the flight control surfaces.

If choice a is selected set score to 1.

36. When does the Aircraft Communication Addressing and Reporting System (ACARS) operate in the polled mode?

- (a) When a message block is longer than 220 characters.
- (b) When the aircraft is interrogated by a ground facility.
- (c) When the flight crew initiates ACARS communication.

If choice b is selected set score to 1.

37. With the Global Positioning System (GPS) a satellite position error is affected by

- (a) gravity forces.
- (b) the GPS receiver.
- (c) the satellite clock.

If choice a is selected set score to 1.

38. What is the symbol for the highest collision threat that will be displayed by the Traffic Collision Avoidance System (TCAS)?

- (a) A yellow roundel.

- o (b) A white diamond.
- (c) A red square.

If choice c is selected set score to 1.

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

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

If choice a is selected set score to 1.

40. One of the build-in test functions is a cyclic test. This test.....

- o (a) is carried out only on the ground.
- (b) is carried out permanently during system operation.
- o (c) interrupts the system operation.

If choice b is selected set score to 1.

***If assessment score is 75% to 100% Pass
If assessment score is 0% to 74% Fail***