

Question block created by wizard

1. Heavy rain conditions, would be part of which capital from the SHELL model?

- (a) S from Showers
- (b) E from Environment
- (c) H from Hail

If choice b is selected set score to 1.

2. If a maintenance manual is incorrect, which capital of the SHELL model is applicable?

- (a) L from Liveware
- (b) S from Software
- (c) H from Hardware

If choice b is selected set score to 1.

3. The majority of accidents in Aviation are related to:

- (a) Weather conditions
- (b) Contaminated fuel (or lack of fuel)
- (c) Human errors.

If choice c is selected set score to 1.

4. What is the aim of a Human Factor Training?

- (a) To provide management with information and enable the management to reduce cost.
- (b) To increase safety, quality and efficiency of the organisation
- (c) To reduce the number of injured people within an organisation.

If choice b is selected set score to 1.

5. If 5 persons are seriously injured during a flight and the aircraft suffered structural damage, than:

- (a) This is a serious incident
- (b) This is an accident

- (c) This is an incident

If choice b is selected set score to 1.

6. When a person has died (a death not relating to the health of the person) during a Commercial Flight, than:

- (a) This is a serious incident
- (b) This is an incident
- (c) This is an accident

If choice c is selected set score to 1.

7. During a flight a "bird-strike" occurred, resulting in structural damage (a dent on the leading edge on the wing) to the aircraft.

- (a) This is an accident
- (b) This is an incident
- (c) This is a serious incident

If choice b is selected set score to 1.

8. What is referred to as "Murphy's Law"?

- (a) Anything that can go wrong will go wrong
- (b) Avoid any action with an unacceptable outcome
- (c) When something has gone wrong, management will find somebody to blame it on

If choice a is selected set score to 1.

9. What is the aim of human factor training?

- (a) Provide evidence of compliance to regulations in respect to human factor training.
- (b) Train mechanics in human relations the impact on society.
- (c) Increase safety by reducing human error and its impact on maintenance activities.

If choice c is selected set score to 1.

10. The SHELL model components are?

- (a) Software, Hardware, Endurance, Live ware.

- o (b) Specifications, Holography, Endurance, Live Stock.
- (c) Software, Hardware, Environment, Live ware.

If choice c is selected set score to 1.

11. What is cognitive science?

- (a) Cognitive science is the interdisciplinary scientific study of the mind and its processes.
- o (b) Cognitive science is the interdisciplinary scientific study of muscle movements/contraction and nerves.
- o (c) Cognitive science is the study of human behaviour.

If choice a is selected set score to 1.

12. What's the aim of human factors training?

- (a) To increase safety, quality and efficiency.
- o (b) To safeguard the health and safety of maintenance personnel.
- o (c) To reduce costs by increasing efficiency, safety and quality.

If choice a is selected set score to 1.

13. Murphy's law is:

- (a) Anything that can go wrong, will go wrong.
- o (b) Anything that goes wrong cannot be prevented.
- o (c) Anything that goes wrong is always a human failure.

If choice a is selected set score to 1.

14. An event associated with the use of an aircraft, in the period between boarding the aircraft and the loss of signal from the aircraft is called?

- o (a) a serious incident
- o (b) an incident
- (c) an accident

If choice c is selected set score to 1.

15. What is main human sensor for perception?

- (a) Hearing
- (b) Vision
- (c) Touch

If choice b is selected set score to 1.

16. Music within an aircraft maintenance environment,

- (a) is distracting and can disturb communication between persons.
- (b) is forbidden by European Law.
- (c) reduced stress and is recommended

If choice a is selected set score to 1.

17. Above which noise level, hearing protection is required (in the Netherlands).

- (a) 85db (decibel)
- (b) 90 db (decibel)
- (c) 103db (decibel) the maximum noise level in a Disco

If choice a is selected set score to 1.

18. Listening to music during studying is called?

- (a) Dual-Focussing
- (b) Selective Attention.
- (c) Prolonged Attention

If choice b is selected set score to 1.

19. Learned knowledge is stored in which memory?

- (a) Semantic memory.
- (b) Episodic memory
- (c) Steady-state memory.

If choice a is selected set score to 1.

20. Fear of confined spaces (for example inside a Fuel tank) is named;

- o (a) Acrophobia
- (b) Claustrophobia
- o (c) Bath phobia

If choice b is selected set score to 1.

21. To have the ability to understand the situation, to analyse the situation and anticipate the next appropriate actions which must be taken. This is called....

- o (a) prolonged attention
- o (b) decision making
- (c) situation awareness

If choice c is selected set score to 1.

22. Which factors affect clarity of sight?

- o (a) Colourblindness, sunglasses.
- (b) Drugs, medication, alcohol.
- o (c) Aircraft elevation, cabin air temperature.

If choice b is selected set score to 1.

23. Why is vision important for the aircraft maintenance engineer?

- o (a) It is important to see difference in warning light colours, because different colours have different meanings.
- o (b) It will be difficult to read instruction manuals.
- (c) It can affect the outcome of an inspection.

If choice c is selected set score to 1.

24. Why does noise have a negative impact on performance?

- o (a) Depending on the type of noise, aircraft systems become instable.

- (b) Noise is fatiguing and effect concentration and decision making.
- o (c) Noise may have a negative impact on Ultra Sonic inspections.

If choice b is selected set score to 1.

25. What is information processing?

- o (a) Information gathered by sensors is given to the memory of the brain, which when stored will lead to actions.
- o (b) Information is obtained by the brain, is given to the senses and when it makes sense it leads to action.
- (c) Information gathered by sensors is given to the brain, who makes the decisions which lead to action.

If choice c is selected set score to 1.

26. Which of the statements on memory is correct?

- o (a) In our memory we only store facts, the brain translates this into belief social norms.
- o (b) Long term memory stores information currently being used.
- (c) Short term memory can be extended through rehearsal.

If choice c is selected set score to 1.

27. What is meant with situation awareness?

- (a) To understand the information in context of the situation.
- o (b) To understand the position of the human beings.
- o (c) To understand the situation in respect to part 66 approvals.

If choice a is selected set score to 1.

28. For inspecting fuel tanks the mechanic should not have:

- o (a) Fear of height
- (b) Claustrophobia
- o (c) Physical restrictions

If choice b is selected set score to 1.

29. When you have performed a maintenance task (for example a Wheel Replacement). You have released (and signed) for the maintenance task. The team leader has released the aircraft inside the aircraft technical logbook. Who is responsible for the correct replacement of the wheel?

- (a) The Accountable Manager.
- (b) The team leader.
- (c) You are.

If choice c is selected set score to 1.

30. Teamwork has....

- (a) advantages and disadvantages.
- (b) only advantages
- (c) only disadvantages

If choice a is selected set score to 1.

31. A team leader tells you not to follow the Maintenance Procedures, because he knows a quicker procedure. After completion of the quicker procedure, you sign for completion:

- (a) This is an advantage of teamwork, you learn from each other.
- (b) This is a disadvantage of teamwork, a team tends to frequently differ from regulations.
- (c) This is an advantage of teamwork, the team leader is responsible for all work performed, so he decides.

If choice b is selected set score to 1.

32. What are the primary requirements in Maslow's hierarchy of needs?

- (a) Self-esteem, respect of others and respect by others
- (b) Security of employment, family and health.
- (c) Breathing, food and water.

If choice c is selected set score to 1.

33. A safety culture:

- (a) are the safety requirements as publishes by the Management and organisation.
- (b) is a set of norms, values and attitudes which limits the exposure to dangers to an acceptable level

- (c) is the safety briefing a person receives when a new person starts in an organisation

If choice b is selected set score to 1.

34. What is the essence of the theory of Maslow?

- (a) This theory shows which factors motivate people.
- (b) This theory shows which factors de-motivate people.
- (c) This pyramid shows us that higher needs can be met if the primary needs are missing.

If choice a is selected set score to 1.

35. To remain in a good healthy condition, you should:

- (a) Drink at least 3 glasses (250 ml) of a liquid containing a high amount of caffeine during the day.
- (b) Eat at least 150 grams of sugar, at 09:00 and 13:00 and 18:00.
- (c) Eat regular and balanced.

If choice c is selected set score to 1.

36. In the circadian rhythm, the phase with the highest alertness is:

- (a) Around 15:30 in the afternoon.
- (b) Around 10:00 in the morning.
- (c) When the sun rises (normally around 06:30 in the morning).

If choice b is selected set score to 1.

37. The circadian rhythm is....

- (a) your heartbeat.
- (b) the 24 hours cycle of the human body.
- (c) the rapid eye movements of the eyes during a dream.

If choice b is selected set score to 1.

38. The chances of human error are higher:

- (a) during evening shifts.

- (b) during night shifts.
- o (c) after 4 cups of coffee.

If choice b is selected set score to 1.

39. When having stress most people will react by ?

- (a) going on the defence.
- o (b) consuming large quantities of food.
- o (c) starting to laugh.

If choice a is selected set score to 1.

40. How can you relieve stress ?

- o (a) Blame the management (they are responsible).
- (b) Get sufficient sleep
- o (c) Smoke a cigarette.

If choice b is selected set score to 1.

41. Is the performance of people related to stress?

- o (a) No, "performance of people" and "stress" are not related to each other.
- o (b) No, stress is not good. Stress directly results in a lower performance.
- (c) Yes, stress can be useful, but should not exceed the breaking point.

If choice c is selected set score to 1.

42. After consuming alcohol (4 glasses) you should not;

- o (a) Work in the next 36 hours.
- o (b) Work in the next 4 hours.
- (c) Work in the next 12 hours.

If choice c is selected set score to 1.

43. The consumption of alcohol will result in....

- o (a) a happy feeling, due to the natural release of steroids.

- (b) the weakening of the senses.
- o (c) the stimulation of the senses.

If choice b is selected set score to 1.

44. Is the use of medication allowed by an aircraft mechanic?

- o (a) No, medication is not allowed.
- (b) Yes, but only medicine prescribed by a doctor, and according the leaflet (or packaging) the use of the medication does not affect the performance of your work.
- o (c) Yes, it is recommended to use medication during the night shift to stay alert.

If choice b is selected set score to 1.

45. The use of marihuana by an aircraft mechanic is:

- (a) Not allowed.
- o (b) Not allowed during working hours, drugs remain a private issue and companies are not authorized to restrict the use of drugs after working hours.
- o (c) Allowed, because small amount are commonly accepted in the Netherlands.

If choice a is selected set score to 1.

46. Are noise levels below 80 dB (Decibel) a safety concern in a maintenance environment ?

- o (a) Noise levels below 80 dB are not a safety concern.
- o (b) Noise is a safety concern, but only between 10.000 Hz and 20.000 Hz.
- (c) Noise can camouflage warning signals, so noise is always a safety concern.

If choice c is selected set score to 1.

47. How is determined when it's considered safe to enter a fuel tank in an aircraft maintenance environment ?

- o (a) By smell / odour.
- o (b) By cooling the air so it becomes a liquid or a solid, so the various chemical substances can be determined.
- (c) With a detector measuring the part per million of a certain gas.

If choice c is selected set score to 1.

48. What can be a direct negative effect of being exposed to a toxic gas ?

- (a) Red fingernails.
- (b) The circadian rhythm can be disturbed.
- (c) Eye irritation.

If choice c is selected set score to 1.

49. Insufficient illumination can cause decreased visual perception, but it also can result in....

- (a) visual fatigue.
- (b) a higher mental state of alertness.
- (c) an improved hearing capacity.

If choice a is selected set score to 1.

50. When working outside, with temperatures above ... Degrees Celsius, your mental and physical performance can decrease:

- (a) Above 22 Degrees Celsius.
- (b) Above 41 Degrees Celsius.
- (c) Above 38 Degrees Celsius.

If choice c is selected set score to 1.

51. EASA AMC 145.A.25 state that facilities where airplane maintenance is performed, need to provide a good climate for a technician to do his work without discomfort. This means:

- (a) that this law applies only hangar operations.
- (b) the environment must be adequate for the work to be performed.
- (c) the environment must have a heating system.

If choice b is selected set score to 1.

52. The level of illumination on airplane surface least depends on:

- (a) distance of the source.
- (b) ambient temperature.
- (c) candle power of the source.

If choice b is selected set score to 1.

53. Why is a clean workspace with a proper storage important ?

- (a) This is a requirement, stated in the international OHS (Occupational Health and Safety) requirements.
- (b) This has a positive influence on the efficiency of the production.
- (c) As per ISO 9001:2000 this is mandated.

If choice b is selected set score to 1.

54. If the access to a fuel tank is narrow, what is recommended ?

- (a) To work together with a colleague, which helps the other person to gain access.
- (b) To take of your clothes and shoes, it's better to enter the fuel tank with a minimum of clothes.
- (c) When entering a fuel tank, temporarily remove the breathing apparatus to gain easier access.

If choice a is selected set score to 1.

55. Give the meaning of the abbreviation: FOD.

- (a) Foreign Object Damage
- (b) Foreign Object Disaster
- (c) Flight Object Damage

If choice a is selected set score to 1.

56. Can all tasks in an Aircraft Maintenance Manual (AMM) be performed by 1 person ?

- (a) No
- (b) Yes, but the person must be able to lift heavy equipment above 25Kgs and understand how to use special tooling.
- (c) Yes, but the person must be able to lift heavy equipment above 30 Kgs.

If choice a is selected set score to 1.

57. Is a person allowed to use special tools when performing a visual inspection ?

- (a) No
- (b) Yes

- o (c) Yes, but limited to flash light and a mirror.

If choice b is selected set score to 1.

58. What is a typical example of a repetitive task (sometimes referred to as a recurring task) ?

- o (a) Verifying the part number and serial number of the Nose Landing Gear actuator.
- o (b) Performing a Detailed Visual Inspection of the rudder control cables.

- (c) Checking for defects on tyres.

If choice c is selected set score to 1.

59. What is a complex system ?

- o (a) A system with 2 inputs.
- o (b) The cargo tracks and locks inside a cargo area in an aircraft.

- (c) A system with many inputs.

If choice c is selected set score to 1.

60. Finding a defect is easier, when the system is....

- o (a) Complex.

- (b) Simple.

- o (c) Controlled with an ARINC 429 data bus.

If choice b is selected set score to 1.

61. A Flight Management Computer is an example of a:

- o (a) Simple system
- o (b) Discrete system

- (c) Complex system

If choice c is selected set score to 1.

62. What is at least required for communication?

- o (a) A sender, an intended recipient (or receiver) and an IP-address.

- (b) A sender, a message and an intended recipient (or receiver).

- o (c) A message and an IP-address.

If choice b is selected set score to 1.

63. A Task card (or Job card) is considered;

- o (a) Informal communication
- o (b) Visual communication
- (c) Formal communication

If choice c is selected set score to 1.

64. Research indicates that ... % of all messages are understood.

- o (a) 93%
- (b) 30%
- o (c) 5%

If choice b is selected set score to 1.

65. At the end of a shift, you want to go home. But the task is not finished. You intend to continue the work (the task) the next day. How should this be communicated ?

- o (a) A report (written communication) is not needed, because you will finish the task the next day.
- (b) You must record (written communication) the work performed and write that the task is not finished.
- o (c) You tell (verbal communication) your team leader that the task is almost finished and you go home.

If choice b is selected set score to 1.

66. Why do maintenance companies provide you with trainings to keep your knowledge up-to-date?

- (a) It's mandatory (obliged by regulation).
- o (b) Companies receive government subsidies for all trainings provided, so companies receive money.
- o (c) In the labour-agreements between unions and the management this was decided.

If choice a is selected set score to 1.

67. Message (bulletin) boards are a good communication means to distribute "Flight Critical Information".

- (a) Yes
- (b) Yes, if the information is printed on red-paper.
- (c) No

If choice c is selected set score to 1.

68. Who is responsible within a maintenance organisation for good communication ?

- (a) The Quality Assurance Manager
- (b) All staff
- (c) Management

If choice b is selected set score to 1.

69. If a person makes the same mistake repeatedly, this is called?

- (a) A constant error
- (b) Slip
- (c) A variable error

If choice a is selected set score to 1.

70. When several steps inside an inspections procedure have not been carried out as intended. How is this called?

- (a) Mistakes
- (b) Slips
- (c) Errors

If choice b is selected set score to 1.

71. When inspections have deliberately not been carried out. This is called ?

- (a) Mistakes
- (b) Lapses
- (c) Violations

If choice c is selected set score to 1.

72. When a mechanic never changes the "O"-seals during the replacement of an engine oil filter, because "they are never damaged". According the AMM (Aircraft Maintenance Manual) these "O"-seals must be changed when the engine oil filter is replaced. This violation is called:

- (a) Optimizing Violation
- (b) Situational Violation
- (c) Routine Violation

If choice c is selected set score to 1.

73. The main cause of errors is:

- (a) Incorrect installation of parts
- (b) Omissions
- (c) Wrong parts

If choice b is selected set score to 1.

74. How is the model called, in which hazards can cause an accident, if all defense-layers are not active?

- (a) Swiss Cheese Model
- (b) Maslow's Pyramid
- (c) SHELL Model

If choice a is selected set score to 1.

75. Which statement on error types is correct?

- (a) An operator error happens only once, after the operator has been re-instructed the problem is solved.
- (b) A design error will reoccur during flight when not addressed properly.
- (c) An operator error is the result of a flaw in the design.

If choice b is selected set score to 1.

76. To have not enough fuel in the tank is?

- (a) Irreversible for a car on the highway.
- (b) Irreversible for an airplane flying nearby an airport.
- (c) Irreversible for an airplane flying over the ocean.

If choice c is selected set score to 1.

77. Recent study of errors showed the highest number of errors with:

- (a) Omissions
- (b) Incorrect parts
- (c) Incorrect installation

If choice a is selected set score to 1.

78. Why is reporting of errors important?

- (a) To correct them, when they happen.
- (b) To prevent that another mechanic makes the same mistake.
- (c) To give oversight opportunities for the authorities.

If choice b is selected set score to 1.

79. How can we avoid an error?

- (a) Elevate the problem to the highest management level. Who can take appropriate disciplinary actions.
- (b) Instruct mechanics not to make errors.
- (c) Understand why they happen and take appropriate actions.

If choice c is selected set score to 1.

80. Which system helps us to avoid and manage errors?

- (a) MORS and SMS
- (b) Safety System and managed System
- (c) SMS and SAR

If choice a is selected set score to 1.

81. Which sign indicates the highest risk level?

- (a) A Danger sign
- o (b) A Caution sign
- o (c) A Warning sign

If choice a is selected set score to 1.

82. When the work is finished and the mechanic leaves tools behind, this can cause:

- o (a) SHELL
- (b) FOD
- o (c) SLIP

If choice b is selected set score to 1.

83. Your colleague has fallen from a platform (about 4 meters high). He appears to have lost his consciousness. What should you do?

- o (a) Call for help (911 or 112) and wait for the professionals to do their work.
- o (b) You put your colleague in your car and drive to the emergency services.
- (c) Stay calm and assess the situation.

If choice c is selected set score to 1.

84. Fuel is leaking from an aircraft (50 litres per second). What should you initially do ?

- o (a) Call for help (911 or 112) and make sure that at least 100 meters are between you and the fuel.
- o (b) Make a picture as proof of the environmental spill.
- (c) Stay calm and assess the situation.

If choice c is selected set score to 1.

85. A colleague is lying under an aircraft (Boeing 737-800), which arrived about 15 minutes ago. The person appears to have lost his consciousness (he doesn't move at all). What should you initially do ?

- o (a) Throw water in the face of the person and wait for a response.
- o (b) Call for help (911 or 112) and wait for the professionals to do their job.
- (c) Stay calm and assess the situation.

If choice c is selected set score to 1.

86. What is an example of a biological hazard during internal inspection of a fuel tank?

- (a) Fungus in the fuel tank.
- o (b) Fume in the fuel tank.
- o (c) Sharp edges in the fuel tank.

If choice a is selected set score to 1.

87. Which of the following examples is an FOD hazard?

- (a) Tools in the fuel tank.
- o (b) Tools in freight compartment.
- o (c) Tools in the cabin.

If choice a is selected set score to 1.

88. What should be verified before a maintenance activity starts in respect to safety?

- o (a) The cargo does not have hazardous materials.
- (b) Power is deactivated from systems, such as electricity, air and hydraulic power.
- o (c) The aircraft is on the parking brake.

If choice b is selected set score to 1.

89. What is the correct sequence when dealing with emergencies?

- o (a) Apply first aid, call for help, assist emergency services.
- (b) Observe what has happened, call for help, apply first aid.
- o (c) Call for help, observe what has happened, apply first aid.

If choice b is selected set score to 1.

90. You are driving in a car with your colleague. You encounter a person who collapsed beside the road. What do you do?

- o (a) You apply the ABC rule for first aid and assess the general health condition of the victim.
- o (b) You put the victim in the car and drive to the nearest hospital.

- (c) You stay with the victim and your colleague informs the emergency response team.

If choice c is selected set score to 1.

91. During maintenance you disconnect a fuel line which starts leaking a large amount of fuel. What is the first action you perform?

- (a) Make sure you don't get fuel on your body.
- o (b) Call the responsible person.
- o (c) Obtain and approve fire extinguisher.

If choice a is selected set score to 1.

If assessment score is 0% to 100% Feedback