



DEPARTMENT FAHRZEUGTECHNIK UND FLUGZEUGBAU

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Solution

Aircraft Systems SS 2016

Part 2: Description of the A321

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Part 2: 30 minutes

Hints:

- Please work on this examination without notes or books.
- Please return this sheet. In this way you will maintain a full document.
- For the Multiple-Choice-Tasks here only one answer of the given three answers is correct.
- Mark the answers on this task sheet.

ATA21 AIR CONDITIONING

1. The AIR CONDITIONING system of the A321 takes pressurized air from ...

- A) ... electrical compressors
- B) ... the engine compressors**
- C) ... the Blue hydraulic system

2. The AVIONIC VENTILATION SYSTEM is a ...

- A) ... fully automatic system**
- B) ... manually controlled system
- C) ... semi-manually controlled system

ATA22 AUTO PILOT

3. Which computer provides the AUTOPILOT (AP) function?

- A) Elevator Aileron Computer (ELAC)
- B) Auto Pilot Computer (APC)
- C) Flight Management and Guidance Computer (FMGC)**

4. The VERTICAL and LATERAL FLIGHT PLANS are part of the

- A) Flight Guidance Part
- B) Flight Management Part**
- C) Auto Pilot Part

ATA23 COMMUNICATION**5. Which of the following functions are part of the CABIN INTERCOMMUNICATION DATA SYSTEM (CIDS)?**

- A) Galley Monitoring
- B) Cockpit Voice Recording
- C) Service Interphone**

ATA24 ELECTRICAL POWER**6. Which VOLTAGE SOURCES are available to the A321 during cruise?**

- A) One Auxiliary Power Unit (APU), external power, one emergency generator
- B) Two engine driven generators, one emergency generator, two batteries, one APU**
- C) One APU, two batteries, one Power Cycle Machine, two engine driven generators

ATA27 FLIGHT CONTROLS**7. The AILERONS belong to ...**

- A) ... primary as well as secondary flight controls
- B) ... primary flight controls**
- C) ... secondary flight controls

8. The flight control NORMAL LAW provides ...

- A) ... full protection against fatal operating conditions**
- B) ... only partial protection
- C) ... no protection

ATA28 FUEL**9. The JET PUMPS of an A321 ...**

- A) ... supply the engines with fuel from the Wing Tanks
- B) ... transfer fuel from the Center Tank to the Wing Tanks**
- C) ... protects the fuel system against over pressure and spilling

ATA29 HYDRAULIC POWER**10. The GREEN HYDRAULIC SYSTEM can be pressurized by ...**

- A) ... one engine driven pump and the Ram Air Turbine
- B) ... one electrical pump and a hand pump
- C) ... one engine driven pump and the Power Transfer Unit**

ATA30 ICE AND RAIN PROTECTION

11. The COCKPIT WINDOWS are heated by ...

- A) ... bleed air
- B) ... electrical current**
- C) ... ram air

ATA31 INDICATING AND RECORDING

12. Information from the ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS) is displayed on screens as follows:

- A) PFD (Primary Flight Display) and ND (Navigation Display)**
- B) EWD (Engine/Warning Display) and SD (System Display)
- C) ECAM (Electronic Centralized Aircraft Monitoring)

ATA32 LANDING GEARS

13. In normal operation, the two MAIN LANDING GEARS are operated ...

- A) ... hydraulically**
- B) ... electrically
- C) ... mechanically

14. The ANTI-SKID SYSTEM avoids the wheels to lock ...

- A) ... in the landing gear bay after retraction of the gear
- B) ... during extension of the landing gear with gravity
- C) ... during braking**

ATA 33 LIGHTS

15. The STROBE LIGHTS have the task ...

- A) ... to light the engine inlets
- B) ... to improve the visibility of the aircraft by other aircraft**
- C) ... to allow other aircraft to determine the flight direction of the aircraft

ATA34 NAVIGATION

16. GROUND SPEED data is provided from the part of the Air Data Inertial Reference Unit (ADIRU) called ...

- A) ... Air Data Reference Part
- B) ... Inertial Reference Part**
- C) ... Total Speed Data Part

ATA35 OXYGEN

17. The OXYGEN SYSTEM of an A321 provides PASSANGERS with oxygen from ...

- A) ... high pressure compressors of both engines
- B) ... one high pressure oxygen cylinder
- C) ... chemical oxygen generator units

ATA36 PNEUMATIC

18. The BLEED AIR SYSTEM is (among other things) used for ...

- A) ... engine starting
- B) ... nose wheel steering
- C) ... flight controls

ATA38 WATER AND WASTE

19. The WATER AND WASTE SYSTEM of the A321 consists of ...

- A) ... potable water and waste systems
- B) ... water und waste collection and ventilation systems
- C) ... potable water, waste water and toilet systems

ATA49 AUXILIARY POWER UNIT

20. In flight, the AUXILIARY POWER UNIT supports systems as follows:

- A) air conditioning and hydraulic systems
- B) electrical and hydraulic systems
- C) air conditioning and electrical systems