

What does ADCS stands for?

A Attitude determination and control system

0 ✓

B Antibody–drug conjugates

0 ✗

C Guidance, Navigation, Control

0 ✗

D It's an abbreviation of the thrusters on a spacecraft

0 ✗

What is the typical Euler sequence used in space?

- | | | | |
|---|---------------------------|---|---|
| A | YPR | 0 | ✓ |
| B | PYR | 0 | ✗ |
| C | RYP | 0 | ✗ |
| D | The order does not matter | 0 | ✗ |

What does the gravity gradient torque tend to do on an elongated object on orbit?

A the long axis will tend to align with the velocity vector

0 ✕

B the short axis will tend to align with the velocity vector

0 ✕

C the long axis will tend to align with the direction of gravity force

0 ✓

D the short axis will tend to align with the direction of gravity force

0 ✕

Which statement is false about magnetic torquers?

- | | | | |
|---|--|---|---|
| A | Magnetic torquers are reliable | 0 | × |
| B | They need only a very small magnetic field to work | 0 | ✓ |
| C | They need only in LEO | 0 | × |
| D | They are lightweight | 0 | × |

How many thrusters are needed for pure rotation of a spacecraft?

A 6

0 ✕

B 10

0 ✕

C 12

0 ✓

D 16

0 ✕

Which statement is false about reaction wheels?

- A They use the conservation of angular momentum? 0 ✕
- B If the vehicle needs to change orientation, the angular rotation speed of the wheel is increased. 0 ✕
- C The angular rotation of the wheel is opposite to the vehicle. 0 ✕
- D The angular rotation of the wheel is in the same direction as the vehicle. 0 ✓

Which electrical power systems have been used on spacecraft?

A Batteries

0 ✓

B Fuel cells

0 ✓

C Solar panels

0 ✓

D Radioisotope Thermoelectric Generators (RTGs)

0 ✓

What are the typical losses during an ascent to space?

A Gravity loss

0 ✓

B Human error

0 ✗

C Drag loss

0 ✓

The Plesetsk Cosmodrome is at a latitude of 62.9°N . What is the minimal inclination of the orbit of a spacecraft launched from there?

A 98.2°

0 ✕

B 0° if launched due East

0 ✕

C 80°

0 ✕

D 62.9°

0 ✓

What are the effects of going through the atmosphere?

A High heat load

0 ✓

B Deceleration

0 ✓

C Acceleration

0 ✗

D High drag on the vehicle

0 ✓