

Artemis II Reference Guide

Aerospace Engineering · Answer Key · 31 Questions

1. What is the primary purpose of the Artemis campaign?

- A) To establish a permanent base on Mars
- B) To explore the Moon and prepare for missions to Mars**
- C) To launch satellites into geostationary orbit
- D) To study asteroids and comets

2. Which NASA program aims to return humans to the Moon?

- A) Project Apollo
- B) Project Mercury
- C) Artemis Program**
- D) Skylab Program

3. What is the name of the spacecraft that will carry astronauts on the Artemis missions?

- A) Dragon
- B) Starliner
- C) Orion**
- D) Soyuz

4. What is the primary launch vehicle for the Artemis missions?

- A) Atlas V
- B) Delta IV
- C) Space Shuttle
- D) SLS (Space Launch System)**

5. Which NASA center is primarily responsible for the Exploration Ground Systems (EGS)?

- A) Johnson Space Center
- B) Marshall Space Flight Center
- C) Kennedy Space Center**
- D) Armstrong Flight Research Center

6. Who are the four astronauts assigned to the Artemis II mission?

- A) Neil Armstrong, Buzz Aldrin, Michael Collins, Alan Shepard
- B) Reid Wiseman, Victor Glover, Christina Koch, Jeremy Hansen**
- C) John Glenn, Scott Carpenter, Wally Schirra, Gordon Cooper
- D) Sally Ride, Guion Bluford, Mae Jemison, Ellen Ochoa

7. Approximately how long is the Artemis II mission expected to last?

- A) 3 days
- B) 7 days
- C) 10 days**
- D) 30 days

8. What is the purpose of the ARChER experiment on Artemis II?

- A) To test the spacecraft's propulsion system
- B) To study the effects of deep space travel on crew health and performance**
- C) To observe the lunar surface in detail
- D) To test the launch abort system

9. Which facility is responsible for manufacturing the SLS core stage?

- A) Stennis Space Center
- B) Marshall Space Flight Center
- C) Michoud Assembly Facility**
- D) Kennedy Space Center

10. What type of engine powers the SLS core stage?

- A) RD-180
- B) RS-25**
- C) Merlin
- D) Vulcain

11. How many RS-25 engines are used on the SLS core stage?

- A) One
- B) Two
- C) Three
- D) Four**

12. Who is the prime contractor for the SLS core stage?

- A) Northrop Grumman
- B) Lockheed Martin
- C) Boeing**
- D) Amentum

13. What is the primary function of the Orion spacecraft's service module?

- A) To provide crew living quarters
- B) To launch the spacecraft into orbit
- C) To provide power, propulsion, and critical supplies**
- D) To serve as the heat shield

14. What system is designed to pull the Orion spacecraft and crew to safety in the event of an emergency during launch?

- A) Reaction Control System
- B) Launch Abort System (LAS)**
- C) Emergency Egress System
- D) Service Module Propulsion

15. Which NASA center manages the Orion program?

- A) Kennedy Space Center
- B) Marshall Space Flight Center
- C) Johnson Space Center**
- D) Goddard Space Flight Center

16. What is the name of the large vehicle used to transport the SLS rocket and mobile launcher between the Vehicle Assembly Building and the launch pad?

- A) Crawler-Transporter**
- B) Roll-On/Roll-Off Platform
- C) Launch Umbilical Tower
- D) Mobile Service Structure

17. Launch Pad 39B was upgraded to support which rocket?

- A) Saturn V
- B) Space Shuttle
- C) SLS (Space Launch System)**
- D) Ares V

18. What is the purpose of the sound suppression system at the launch pad?

- A) To provide lightning protection
- B) To dampen sound, vibrations, and extreme heat during liftoff**
- C) To fuel the rocket
- D) To communicate with the spacecraft

19. What are CubeSats?

- A) Large satellite payloads
- B) Small, shoe-box sized technology demonstrations and scientific experiments**
- C) Components of the Orion spacecraft
- D) Parts of the SLS rocket

20. Which international space agencies are sending CubeSats aboard Artemis II?

- A) Only ESA
- B) Argentina, Germany, Saudi Arabia, and South Korea**
- C) Canada and Japan
- D) No international partners are involved

21. What is the primary role of the Vehicle Assembly Building (VAB)?

- A) To house mission control
- B) For final assembly and testing of the rocket and spacecraft**
- C) To manufacture rocket components
- D) To recover the spacecraft after splashdown

22. How many main RS-25 engines are on the SLS core stage?

- A) 2
- B) 3
- C) 4**
- D) 8

23. What is the approximate height of the SLS core stage?

- A) 100 feet
- B) 150 feet
- C) 212 feet**
- D) 300 feet

24. What is the primary propellant for the RS-25 engines?

- A) Kerosene and Liquid Oxygen
- B) Liquid Hydrogen and Liquid Oxygen**
- C) Solid Propellant
- D) Hydrazine

25. Who is the prime contractor for the SLS solid rocket boosters?

- A) Lockheed Martin
- B) Boeing
- C) Northrop Grumman**
- D) Aerojet Rocketdyne

26. How many segments make up each SLS solid rocket booster?

- A) Four
- B) Five**
- C) Six
- D) Seven

27. What is the name of the upper stage of the SLS rocket that carries the Orion spacecraft?

- A) Centaur
- B) Interim Cryogenic Propulsion Stage (ICPS)**
- C) External Tank
- D) Service Module

28. What is the primary role of the Launch Abort System (LAS) on the Orion spacecraft?

- A) To provide in-space propulsion
- B) To control the spacecraft's orientation
- C) To pull the crew to safety in an emergency**
- D) To deploy solar arrays

29. What is the main purpose of the heat shield on the Orion spacecraft?

- A) To provide structural support
- B) To protect the spacecraft from micrometeoroids
- C) To protect the crew module from extreme heat during re-entry**
- D) To generate electrical power

30. What is the approximate diameter of the Orion spacecraft's heat shield?

- A) 5 feet
- B) 10 feet
- C) 16.5 feet**
- D) 20 feet

31. What is the function of the crew module uprighting system?

- A) To stabilize the spacecraft during launch
- B) To deploy parachutes
- C) To flip the capsule upright after splashdown if it lands upside down**
- D) To provide in-space maneuvering