

# AMDL Interview Questions And Answers On GPS

**Q1. What is GPS?**

**ANS:**

Global Positioning System (GPS) is a space based satellite navigation system that provides location and time information in all the weather conditions, anywhere on or near the earth.

**Q2. Give a brief description about History of GPS?**

**ANS:**

Global Positioning System or the GPS was invented by U.S D.O.D (Department of Defence) and Ivan Getting. The cost of developing GPS was twelve Billion Dollars. The design of GPS is based on the similar ground-based radio-navigation systems, like LORAN and Decca Navigator, developed in 1940s and used during World War II .

**Q3. Explain briefly the working principle of GPS?**

**ANS:**

A Global Positioning Systems receiver calculates its position by precisely timing the signals sent by Global Positioning System satellite high above the earth. These distances and satellite location are used to compute the location of the receiver using the Navigation Equations. Although 4 satellites are required for normal operation, fewer apply in special cases.

**Q4. What are the achievements of Global Positioning System?**

**ANS:**

Global Positioning System received many appreciations which includes

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- a. On 10th February 1993, the National Aeronautic Association selected the team as winners of the 1992 ROBERT J.COLLIER trophy.
- b. It was inducted into the space foundation space technology Hall of fame.

**Q5. Explain the structure of GPS?**

**ANS:**

The structure of GPS have three main segments. These are as follows

- a. Page segment
- b. Control segment
- c. User segment

**Q6. Explain the space segment of GPS?**

**ANS:**

Space segment is composed of 24 to 32 satellites in medium Earth orbit and also includes the payload adapter to the boosters required to launch them into orbit.

**Q7. Explain the control segment of GPS?**

**ANS:**

Control segment is composed of a master control station, an alternate master control station, and a host of dedicated and shared ground antennas and monitor stations.

**Q8. Explain the user segment of GPS?**

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## **ANS:**

User segment is composed of thousands of U.S and allied military users of the secure GPS Precise positioning service and millions of civil and scientific users of the standard positioning service.

## **Q9. List the satellite navigation systems?**

## **ANS:**

The navigation systems are as follows

1. GLONASS (Globalnaya navigatsionnaya sputnikovaya sistema): Russias global navigation system.
2. IRNSS (Indian Regional Navigational Satellite System)
3. COMPASS: Peoples republic of chinas global system.

## **Q10. Explain in brief the application of GPS?**

## **ANS:**

The application of GPS are as follows :

### (i) Civilians

- a. Cartography: Both civilian and military cartographers use the technique extensively.
- b. Fleet-tracking: The use of such technology is to identify and locate one or more fleet vehicle in real time.

### (ii) Space exploration

(iii) It is used for tracking devices.

(iv) Military application. Various military weapons system use GPS to track potential ground and air targets.

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(v) Mobile devices. It is widely used in communication devices in the form of google maps. The navigation signals transmitted by GPS satellite encode a variety of information including satellite position.