



**BUDDHA INSTITUTE OF TECHNOLOGY, GIDA, GORAKHPUR**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**  
**CLASS TEST-1 (EVEN SEMESTER 2022-23)**  
**APRIL-2023**

Course: B. TECH. Semester: EC VI Sem  
Subject: SATELLITE COMMUNICATION Subject Code: KEC-062  
M.M. 30 Time: 2:00 hrs Roll No. \_\_\_\_\_

**SECTION-A**

**1. Attempt all questions. Each questions carry equal marks.**

**Marks: 5\*1=5**

Q. No.	Question	Level of Taxonomy	Course Outcome
a.	What do you understand by Satellite?	L2	1
b.	Brief about the satellite communication.	L2	1
c.	Explain Sun Transit Outage in satellite systems with a diagram.	L2	2
d.	Reasons for the downlink frequency to be lower than uplink frequency.	L2	1
e.	What are the advantages and disadvantage of geostationary orbit?	L2	1

**SECTION-B**

**2. Attempt ALL questions. Each questions carry equal marks.**

**Marks: 3\*5= 15**

Q. No.	Question	Level of Taxonomy	Course Outcome
a.	Identify the various orbital elements that define a satellite's orbit. Support your answer with suitable diagrams.	L2	2

or

a.	Discuss the Kepler's second law of planetary motion. Explain points of perigee and apogee. A satellite is moving in an elliptical orbit with point of perigee at 800 km and point of apogee at 2300 km. Determine: (i) Velocity at perigee and apogee (ii) Time period of satellite Take radius of earth to be 6375 Km.	L2	2
b.	Demonstrate the various types of orbits for satellites. Depict the position of various orbits with a diagram. List the advantages of placing the satellites in these orbits.	L2	1

or

b.	Discuss in detail about the application of satellite communication.	L2	1
c.	Discuss the various types of satellites. Also discuss the advantages and applications of the satellites.	L2	1

**SECTION-C**

**3. Attempt ALL questions. Each questions carry equal marks.**

**Marks: 2\*5=10**

Q. No.	Question	Level of Taxonomy	Course Outcome
a.	Identify the various orbital elements that define a satellite's orbit. Support your answer with suitable diagrams.	L2	1

or

a.	Illustrate the difference between geosynchronous orbit and geostationary orbit with suitable diagram.	L2	1
b.	Illustrate the significance of look angles for a satellite using a suitable diagram. Explain the relation to determine the elevation angle and azimuth angle.	L2	2