LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
(AUTONOMOUS)
Accredited by NAAC & NBA (CSE, IT, ECE, EEE & ME)
Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada
L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

OBJECTIVE QUESTIONS

Name of Course Instructor(s) : Mr. V V Rama Krishna Reg : R20
Course Name & Code : Satellite Technology – 20EC80 Unit : 1
Program/Sem/Sec : B.Tech., IT, V-Sem., Section – A, B, andC A.Y : 2023-24
L-T-P Structure : 3-0-0 Credits: 3

S.No	Question Description	Answer
1.	A satellite signal transmitted from a satellite transponder to earth's station is a)Uplink b)Downlink c) Terrestrial d)Earthbound	B
2.		
3.	As the height of a satellite orbit get slower, the speed of the satellite…… a)Increases b)Decreases c)Remainsthesame d)None oftheabove	A
4.	India's first domestic geostationary satellite INSAT-IA was launched on 10th April 1982 from…… [ ] a)USSR b)USA c)UK d)China	B
5.	Which satellite made India the first nation to succeed on its maiden attempt to mars? [ ] a)Rohini b) Mangalyaan c) Kalpana-Id) Chandrayaan-I	B
6.	The earth area covered by a satellite radio beam is known as… [ ] a)zone b)beamwidth c)footprint d)bandwidth	C
7.	Repeaters inside communication satellites are known as…… [ ] a)Tranceivers b)Transponders c)Transducers d)TWT	B
8.	ELV stands for [ ] a)European Launch Vehicle b)Expendable Launch Vehicle c)Extended Launch Vehicle d)None of these	B
9.	The eccentricity of a GEO is / lies [ ] a)0 b)between0and1 c)1 d)greaterthan1	C

10.	India has achieved its own Navigation satellite system called NavIC. Generally for a satellite to function forn a vigation it should be placed in _____. [ ] a)GEO b)MediumEarthorbit c)Polarorbit d)LEO	B
11.	The direction of orbit in the same direction ofearth rotation is called _____. [ ] a)Retrograde b)Prograde c)Perigee d)Apogee	B
12.	Satellite launch vehicles are usually launched towards the east because _____. [ ] a)The satellite achieves circular orbit quickly b) The rocket gets aboost from the Earth's spin c) Expenditure of propulsion fuel is reduced during plane change d)Alloftheabove	B
13.	When is the speed of the satellite emaximum in an elliptical orbit? [ ] a)Retrograde b)Prograde c)Perigee d)Apogee	C

Course Instructor	Course Coordinator	Module Coordinator	HOD
Mr. V V Rama Krishna	Mr. V V Rama Krishna	Dr.M.V.Sudhakar	Dr. Y. Amar Babu

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DESCRIPTIVE QUESTIONS

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S.No	Question Description	CO	E
1.	Draw and explain the general structure of satellite communication system	CO1	L

2.	List the applications of a satellite and discuss them in brief.	CO1	L
3.	Tabulate the differences between LEO, MEO and GEO satellites.	CO1	L
4.	Mention the merits and demerits of satellite communications.	CO2	L
5.	Discuss about expendable and reusable launch vehicles.	CO1	L
6.	Differentiate PSLV with GSLV.	CO2	L
7.	Summarize various important missions of India.	CO 1	L2
8.	Differentiate between Geo stationary and non-Geostationary orbits	CO 2	L2
9.	Explain the need for space communication in detail.	CO 2	L2
10.	Discuss Bus and Payload functional units of a satellite system.	CO 2	L2
11.	How a satellite can be launched in geostationary orbit, show with aid of neat diagram?	CO2	L1

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ICT Tools

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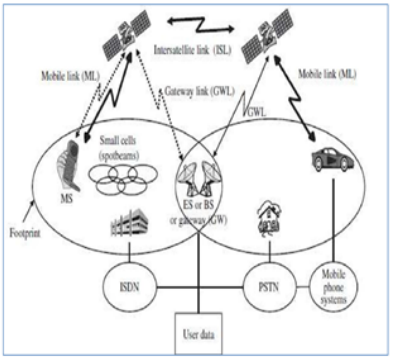
L-T-P Structure : 3-0-0 Credits: 3

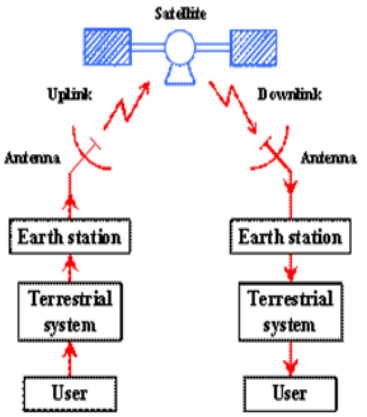
Satellite services

- **Fixed Service Satellites (FSS)**
  - Example: telephone system, Sat to Cable
- **Broadcast Service Satellites (BSS)**
  - Example: Satellite Television/Radio Also called Direct Broadcast Service (DBS).
  - In Europe called DTH
- **Mobile Service Satellites (MSS)**
  - Include land mobile, maritime mobile, and aeronautical mobile.
- **Navigational satellite services** i.e. GPS
- **Meteorological satellite services** i.e. Weather and rescue service

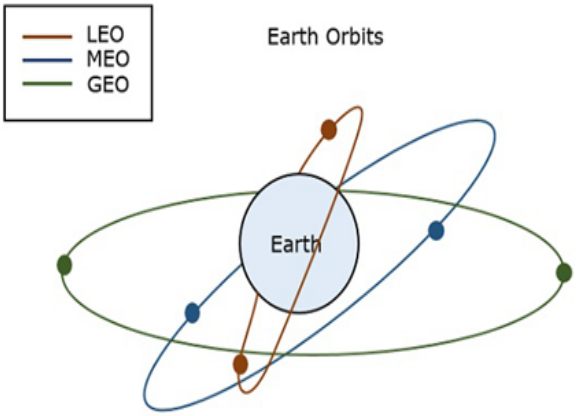
General structure of satellite communication system



General structure of satellite communication system



Earth Orbit Satellites



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