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Time: 3 hours Note: This question paper contains two parts A and B. Part A - is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one-full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions. PART - A (25 Marks) PART - A (26 Marks) PART - A (27 Marks) PART - A (28 Marks) PART - A (29 Marks) PART - A (29 Marks) PART - A (29 Marks) PART - B (20 Marks) PART - B (30 Marks) PART - B (50 Marks) PART - B (50 Marks) PART - B PART - B (50 Marks) PART - B PART	AGCod	e No. 128EK JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD B. Tech IV Year II Semester Examinations, May - 2019 SATELLITE COMMUNICATIONS	A	
Note: This question paper contains two parts A and B. Part A is compulsory, which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any obe-full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions. PART - A (25 Marks) Define ascending node and argument of perigee. List various frequency ranges used for satellite communication. List various frequency ranges used for satellite communication. List various frequency ranges used for satellite communication. What are the advantages of GPS system? What is satellite packet switching? Compare TDMA and FDMA. What are the various signals transmitted by GPS satellites? What are the advantages and disadvantages in positioning satellite in lower orbit. PART - B (50 Marks) PART - B Compare TDMA and FDMA is a quick transmitted by GPS satellite in lower orbit. PART - B (50 Marks) Explain various reasons for orbital perturbation which effects the satellite communication. OR Explain about Attitude and Orbit Control System in detail. Explain system noise temperature and G/T ratio in detail. Explain various phenomena that leads to signal loss on transmission through the earth's atmosphere. OR Explain TDMA and its frame structure with neat diagrams.	Tim			
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1.a) Define ascending node and argument of perigee. List various frequency ranges used for satellite communication. (a) List various frequency ranges used for satellite communication. (b) List various frequency ranges used for satellite communication. (c) An amplifier has a quoted noise figure of 3 dB. What is its equivalent noise temperature? (d) What are the advantages of GPS system? (a) What is satellite packet switching? (b) What is satellite packet switching? (c) What are the various signals transmitted by GPS satellites? (d) What are the various signals transmitted by GPS satellites? (e) What are the various signals transmitted by GPS satellites? (f) What are the various signals transmitted by GPS satellites? (f) What are the various signals transmitted by GPS satellites? (f) What are the various signals transmitted by GPS satellites? (f) What are the various signals transmitted by GPS satellites? (g) What are the various for orbital perturbation which effects the satellite communication. (g) What are the various reasons for orbital perturbation which effects the satellite communication. (g) What are the various reasons for orbital perturbation which effects the satellite communication. (g) What are the various reasons for orbital perturbation which effects the satellite communication. (g) What are the advantages and disadvantages in positioning satellite in lower orbit. (g) Marks) (g) Marks) (h) OR Marks) (h) OR Marks	(PART - A		
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2. Explain various reasons for orbital perturbation which effects the satellite communication 3.a) Describe Geostationary Transfer Orbit and AKM with neat diagrams. b) Describe Geostationary Transfer Orbit with slow orbit raising with neat diagrams. [5+5] 4. Explain about Attitude and Orbit Control System in detail. [10] OR 6. Explain system noise temperature and G/T ratio in detail. [10] Correction of the carth's atmosphere. [10] OR 7.a) Explain TDMA and its frame structure with neat diagrams.	e)	What are the advantages of GPS system? What is satellite packet switching? Compare TDMA and FDMA. What are the various signals transmitted by GPS satellites? What are the features of GPS? List out the advantages and disadvantages in positioning satellite in lower orbit. [2]	A	
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g ag ag ag ag ag a Draw the transmitter and receiver block diagrams of an earth station and explain its 8. Working. What is GPS? Describe the principle of GPS to find the position of a user. 10.a) Define Packet and explain in detail about Packet Reservation. [5+5]b) Discuss message transmission by FDMA. Write short notes on: 11. a) Message transmission by TDMA. b) Tree algorithm, ---ooOoo---AG AG G AG AG AG AG AG AG AG AG AG AG

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