

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**DIPLOMA ENGINEERING – SEMESTER – VI • EXAMINATION – SUMMER- 2017**

**Subject Code: 3361106****Date:09-05-2017****Subject Name: MULTIMEDIA COMMUNICATION****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** Answer any seven out of ten. દશમાંથી કોઇપણ સાતના જવાબ આપો. **14**
1. Define following term: GEO
  ૧. GEO ની વ્યાખ્યા આપો.
  2. What is SPC?
  ૨. SPC એટલે શું?
  3. Define the following terms: DMS
  ૩. DMS ની વ્યાખ્યા આપો.
  4. What are the services offered by ISDN?
  ૪. ISDN કઈ કઈ સેવઓ આપે છે?
  5. Which are the ISDN standards?
  ૫. ISDN ના standards કયા કયા છે?
  6. Which are the application fields of MPEG-4?
  ૬. MPEG-4 ના કયા કયા ક્ષેત્ર મા ઉપયોગી છે?
  7. Define Grade of service.
  ૭. Grade of service ની વ્યાખ્યા આપો.
  8. Which are ITU-T standards.
  ૮. ITU-T standards કયા કયા છે?
  9. Define the term: Digital Video Broadcasting.
  ૯. Digital Video Broadcasting ની વ્યાખ્યા આપો.
  10. What is Mobile IP?
  ૧૦. Mobile IP શું છે?
- Q.2** (a) Draw and Explain elements of Switching System in detail. **03**
- પ્રશ્ન. ૨ (અ) Switching System ના elements દોરી ને સમજવો. **03**
- OR
- (a) State and explain Kepler's three laws in detail. **03**
- (અ) કેપ્લર ના ત્રણ નિયમો લખીને સમજવો. **03**
- (b) Draw and explain Subscriber loop system. **03**
- (બ) Subscriber loop system દોરી ને સમજવો. **03**
- OR

	(b)	Draw and explain Digital Television Infrastructure for Interactive Services.	03
	(બ)	Interactive Services માટે Digital Television Infrastructure દોરી ને સમજાવો.	03
	(c)	Explain various modes of Centralized SPC.	04
	(ક)	Centralized SPC ના મોડ સમજાવો.	04
		OR	
	(c)	Draw and explain architecture of voice over DSL in multimedia system.	04
	(ક)	Multimedia system માટે voice over DSL સમજાવો.	04
	(d)	Draw and explain ISDN protocol architecture.	04
	(ડ)	ISDN protocol architecture દોરીને સમજાવો.	04
		OR	
	(d)	Write a short note on EPBX.	04
	(ડ)	EPBX પર ટૂંક નોંધ લખો.	04
<b>Q.3</b>	(a)	Draw basic block diagram of Earth Station.	03
<b>પ્રશ્ન. 3</b>	(અ)	Earth Station નો બ્લોક ડાયાગ્રામ દોરી ને સમજાવો.	03
		OR	
	(a)	Draw basic block diagram of Space Craft.	03
	(અ)	Space Craft નો બ્લોક ડાયાગ્રામ દોરી ને સમજાવો.	03
	(b)	Write a short note on Broadband ISDN.	03
	(બ)	Broadband ISDN પર ટૂંક નોંધ લખો.	03
		OR	
	(b)	Explain Telemetry, Tracking and Command subsystem of satellite.	03
	(બ)	સેટેલાઇટ ની Telemetry, Tracking અને Command subsystem સમજાવો.	03
	(c)	Which are the main features of Distributed Multimedia System.	04
	(ક)	Distributed Multimedia System ની મુખ્ય લાક્ષીકતાઓ સમજાવો.	04
		OR	
	(c)	Explain significant features of JPEG 2000.	04
	(ક)	JPEG 2000 ની લાક્ષીકતાઓ સમજાવો.	04
	(d)	Explain Serial Transmission Mode of Multimedia Across ADSL.	04
	(ડ)	Multimedia Across ADSL નો સીરીયલ મોડ સમજાવો.	04
		OR	
	(d)	Write a short note on DTH receiver.	04
	(ડ)	DTH receiver પર ટૂંક નોંધ લખો.	04
<b>Q.4</b>	(a)	Explain Video transmission across IP network.	03
<b>પ્રશ્ન. 4</b>	(અ)	Video transmission across IP network સમજાવો.	03
		OR	
	(a)	Which are user and network requirement for Multimedia services.	03
	(અ)	Multimedia services માટે user and network requirement કઈ કઈ છે?	03
	(b)	Draw and explain architecture of Mobile ATM network for transmission of Multimedia Data.	04
	(બ)	Multimedia Data માટે Mobile ATM network નું બંધારણ દોરી ને સમજાવો.	04
		OR	
	(b)	Which are the digital media? Explain any one in detail.	04
	(બ)	Digital media કયા કયા છે? કોઈ પણ એક સમજાવો.	04

	(c) Draw and explain encoder and decoder for MPEG-1 coding of Moving Pictures and Associated Audio.	07
	(ક) Moving Pictures અને Associated Audio માટે MPEG-1નું encoder અને decoder દોરી ને સમજાવો.	09
<b>Q.5</b>	(a) Draw and explain architecture of Mobile IP.	04
<b>પ્રશ્ન. ૫</b>	(અ) Mobile IP નું architecture દોરી ને સમજાવો.	04
	(b) Compare single stage network with two stage network.	04
	(બ) Single stage network ને two stage network સાથે સરખાવો.	04
	(c) Write a short note on VOD.	03
	(ક) VOD પર ટૂંક નોંધ લખો.	03
	(d) Explain about Interactive Broadband Data Services.	03
	(ડ) Interactive Broadband Data Services સમજાવો.	03

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