

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2023****Subject Code:3170627****Date:16-12-2023****Subject Name: ICT For Development****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. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) Define following terms:	03
	1) Routers	
	2) Switches	
	3) Packet	
	(b) How 'Information & Communication Technology' is important or useful to the Modern Era?	04
	(c) Explain various network topologies with appropriate examples.	07
Q.2	(a) Define following terms:	03
	1) LAN	
	2) WAN	
	3) MAN	
	(b) What are the basics and importance of Firewall.	04
	(c) Explain 'RFID Technology. How it can be useful in Civil Engineering sector?	07
	OR	
	(c) Write short note on 'Cloud Technology'.	07
Q.3	(a) Briefly explain Operating System.	03
	(b) Give uses of GIS Technology.	04
	(c) Explain concept of SaaS and explain in detail about cloud computing.	07
	OR	
Q.3	(a) Briefly explain concept of Data centers.	03
	(b) Differentiate between Primary & Secondary storage.	04
	(c) Explain PaaS in detail and explain the roles of ERP in the CRM.	07
Q.4	(a) What is sensor? Briefly explain its various types.	03
	(b) Explain the following terms:	04
	1) Moisture sensor	
	2) Tilt sensor	
	(c) Explain the concept of Smart meter. How it can be useful explain it in detail.	07
	OR	
Q.4	(a) How is IoT useful in the field of Civil Engineering?	03
	(b) Explain the following terms:	04
	1) Smoke sensor	
	2) Pressure sensor	

- (c) Explain in detail about Smart Public Safety. Briefly explain Smart Security and Surveillance. **07**
- Q.5** (a) Justify the statement: “AR and VR, the technology of the future”. **03**
(b) Explain briefly Para-Virtualization and Hardware level- Virtualization. **04**
(c) Write short note on the Augmented Reality (AR) in Search Engine. **07**
- OR**
- Q.5** (a) Define Hypervisor and Operating System level virtualization. **03**
(b) What are the advantages and disadvantages of AR & VR technology. **04**
(c) Explain the concept of Virtual Machine. Explain feature of Augmented Reality & Virtual Reality in construction industry. **07**
