Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER –4 (NEW)- EXAMINATION –WINTER-2022

Subject Code: 3341603   **Date: 15-12-2022**
Subject Name: Fundamentals Of Software 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. Use of simple calculators and non-programmable scientific calculators are permitted.
5. English version is authentic.

Q.1		Answer any seven out of ten. દશમાંથી કોઈપણ સાતના જવાબ આપો.	**14**

1. What is PERT?
૧. PERT શું છે?

2. Define software.
૨. Software ની વ્યાખ્યા આપો.

3. What is validation?
૩. Validation શું છે?

4. What is System Software?
૪. System Software શું છે?

5. Explain data attributes.
૫. data attributes સમજાવો

6. What is cardinality?
૬. Cardinality શું છે?

7. Define organic embedded system.
૭. Organic embedded system ની વ્યાખ્યા આપો.

8. Define Risk.
૮. Risk ની વ્યાખ્યા આપો.

9. Give full form of COCOMO.
૯. COCOMO નું પૂરું નામ આપો.

10. Give full form of: CPM, WBS
૧૦. પૂરું નામ આપો : CPM, WBS

Q.2	(a)	Explain Artificial Intelligence Software.	**03**
પ્રશ્ન. ૨	(અ)	Artificial Intelligence Software સમજાવો.	**૦૩**

OR

	(a)	What is umbrella activities?	**03**
	(અ)	Umbrella activities શું છે?	**૦૩**
	(b)	Explain Spiral model.	**03**
	(બ)	Spiral model સમજાવો	**૦૩**

OR

	(b)	Explain Prototype model.	**03**

(બ)	Prototype model સમજાવો.		03
(c)	Explain RAD model.		04
(ક)	RAD model સમજાવો		૦૪

OR

(c)	Explain incremental model.		04
(ક)	incremental model સમજાવો		૦૪
(d)	Justify: software doesn't wear out.		04
(ડ)	સમજાવો: સોફ્ટવેર નાંશવંત થતુ નથી.		૦૪

OR

(d)	Explain the need of Software Engineering.		04
(ડ)	Software Engineering ની જરૂરિયાત સમજાવો.		૦૪

Q.3	(a)	What is Functional Requirements?	03
પ્રશ્ન. 3	(અ)	Functional Requirements સમજાવો.	03

OR

(a)	List out Application of Software Engineering?		03
(અ)	Software Engineering ની એપ્લીકેશન તારવો.		03
(b)	Discuss Coupling.		03
(બ)	Coupling ની ચર્ચા કરો.		03

OR

(b)	Explain Cohesion.		03
(બ)	Cohesion સમજાવો.		03
(c)	Explain code inspection.		04
(ક)	Code Inspection સમજાવો.		૦૪

OR

(c)	Explain DFD.		04
(ક)	DFD સમજાવો.		૦૪
(d)	Explain data dictionary in detail.		04
(ડ)	data dictionary વિસ્તારમાં સમજાવો.		૦૪

OR

(d)	Explain use-case diagram.		04
(ડ)	use-case diagram સમજાવો.		૦૪

Q.4	(a)	Explain components of activity diagram.	03
પ્રશ્ન. ૪	(અ)	Activity diagram નાં components સમજાવો.	03

OR

(a)	Explain Class Diagram.		03
(અ)	Class Diagram સમજાવો.		03
(b)	Define SRS and write characteristics of a good SRS.		04
(બ)	SRS ની વ્યાખ્યા આપો અને SRS ની લાક્ષણીકતા લખો.		૦૪

OR

(b)	Explain White Box Testing.		04
(બ)	White Box Testing સમજાવો.		૦૪
(c)	Write a short note on risk management.		07
(ક)	Risk management પર ટૂંકનોંધ લખો.		૦૭

Q.5	(a)	Explain E-R Diagram.	04
પ્રશ્ન. ૫	(અ)	E-R Diagram સમજાવો.	૦૪
	(b)	Explain two types of software documentation.	04
	(બ)	software documentation નાં બે ટાઈપ સમજાવો.	૦૪
	(c)	Define role of System Analyst.	03
	(ક)	System Analyst નો રોલ જણાવો.	૦૩
	(d)	Explain Work break down structure.	03
	(ડ)	Work break down structure સમજાવો.	૦૩

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