

**GUJARAT TECHNOLOGICAL UNIVERSITY****DIPLOMA ENGINEERING – SEMESTER – 4(NEW) • EXAMINATION – SUMMER 2018****Subject Code: 3341603****Date: 02-May-2018****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 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 software.
૧. સોફ્ટવેર સમજાવો.
2. What is System Software?
૨. System Software શું છે?
3. What is Software Scope?
૩. Software Scope શું છે?
4. Draw symbols used in DFD.
૪. DFD માં ઉપયોગમાં આવતા સિમ્બોલ જણાવો.
5. What is cardinality?
૫. Cardinality શું છે?
6. When Prototype Model is used?
૬. Prototype Model ક્યારે યુઝ થાય છે?
7. What is Use case diagram?
૭. Use case diagram સમજાવો.
8. What is Estimation?
૮. Estimation શું છે?
9. What is Code review?
૯. Code review શું છે?
10. Explain Test case.
૧૦. Test case સમજાવો.

**Q.2** (a) Compare Application Software and System Software. **03**

**પ્રશ્ન. ૨** (અ) Application Software અને System Software ની તુલના કરો. **03**

**OR**

(a) Explain Artificial Intelligence Software. **03**

(અ) Artificial Intelligence Software સમજાવો. **03**

(b) What is umbrella activities? **03**

(બ) Umbrella activities શું છે? **03**

**OR**

(b) Which are the tools used in Software Development? **03**

	(બ) Software Development માં ક્યા ટૂલ્સ વપરાય છે?	03
	(c) Discuss the characteristics of Software.	04
	(ક) Software ની લાક્ષણિકતા સમજાવો.	04
	OR	
	(c) Discuss any two Software Myths.	04
	(ક) કોઈપણ બે Software Myths સમજાવો.	04
	(d) Why Software Engineering is known as layered technology?	04
	(5) Software Engineering ને layered technology શા માટે કહેવામાં આવે છે?	04
	OR	
	(d) What is characteristics of good SRS?	04
	(5) સારા SRS નાં નિયમો જણાવો.	04
<b>Q.3</b>	(a) What is Data Objects?	03
<b>પ્રશ્ન. 3</b>	(અ) Data Objects સમજાવો.	03
	OR	
	(a) What is Data Attributes?	03
	(અ) Data Attributes સમજાવો.	03
	(b) What is Functional Requirements?	03
	(બ) Functional Requirements સમજાવો.	03
	OR	
	(b) What is Non-Functional Requirements?	03
	(બ) Non-Functional Requirements સમજાવો.	03
	(c) Discuss Cohesion.	04
	(ક) Cohesionની ચર્ચા કરો.	04
	OR	
	(c) Explain Coupling.	04
	(ક) Coupling સમજાવો.	04
	(d) Explain Activity Diagram using suitable example.	04
	(5) યોગ્ય ઉદાહરણ ની મદદ થી Activity Diagram સમજાવો.	04
	OR	
	(d) Discuss Architecture patterns.	04
	(5) Architecture patterns ની ચર્ચા કરો.	04
<b>Q.4</b>	(a) Explain COCOMO.	03
<b>પ્રશ્ન. 4</b>	(અ) COCOMO સમજાવો.	03
	OR	
	(a) Discuss Software Documentation briefly.	03
	(અ) Software Documentation ની ટુક માં ચર્ચા કરો.	03
	(b) Discuss different types of Risks involve in Software Development.	04
	(બ) Software Development માં આવતા રીસ્ક ચર્ચા કરો.	04
	OR	
	(b) What is RMMM plan?	04
	(બ) RMMM plan શું છે?	04
	(c) Write a short note on Incremental Model.	07
	(ક) Incremental Model પર ટુકનોંધ લખો.	07

<b>Q.5</b>	(a) What is unit testing?	<b>04</b>
<b>પ્રશ્ન. ૫</b>	(અ) Unit testing શું છે?	<b>૦૪</b>
	(b) Explain DFD using example.	<b>04</b>
	(બ) DFD ઉદાહરણ આપી સમજાવો.	<b>૦૪</b>
	(c) What is Functional Point Metrics?	<b>03</b>
	(ક) Functional Point Metrics સમજાવો.	<b>૦૩</b>
	(d) Define role of System Analyst.	<b>03</b>
	(ડ) System Analyst નો રોલ જણાવો.	<b>૦૩</b>

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