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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)****I Year M.Tech II Semester (R16) Regular Examinations May/June 2017****SOFTWARE ARCHITECTURE AND DESIGN PATTERNS**

(Computer Science & Engineering)

(For Students admitted in 2016 only)

Time: **3 hours**Max. Marks: **60**(Answer all Five Units **5 X 12 =60** Marks)**UNIT-I**

- Q.1** a. What is software architecture? Explain the use of software architecture in designing a system 6M
 b. Explain in detail about architectural structures and views. 6M

OR

- Q.2** Is achieving quality attributes must be considered throughout design, implementation and deployment? (Y/N). Justify your answer. 12M

UNIT-II

- Q.3** a. Explain the benefits that flow from holding architectural inspections. 6M
 b. What are the properties of successful evaluation? Explain. 6M

OR

- Q.4** Explain in detail about ATAM. 12M

UNIT-III

- Q.5** a. Explain the elements of patterns and the way you organize the catalog. 6M
 b. Explain how design patterns solve design problems. 6M

OR

- Q.6** a. Explain about the Factory Method pattern. 6M
 b. Write brief notes on singleton pattern. 6M

UNIT-IV

- Q.7** a. Write short notes on chain of responsibility. 6M
 b. Write the importance and when we apply the visitor pattern. 6M

OR

- Q.8** Explain in detail about interpreter pattern and iterator patterns. 12M

UNIT-V

- Q.9** Give a case study to utilize architectural styles. 12M

OR

- Q.10** Give a case study for product line development. 12M

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