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# **R15**

#### Code No: 821AK JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD MCA II Semester Examinations, January - 2018 SOFTWARE ENGINEERING

## Time: 3 Hours

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

#### PART - A

| 1.a) | Write brief notes on process assessment.                     | [5] |
|------|--------------------------------------------------------------|-----|
| b)   | Discuss the importance of interface specification.           | [5] |
| c)   | What are the golden rules in interface design? Explain them. | [5] |
| d)   | Write short notes on metrics for testing.                    | [5] |
| e)   | Discuss about formal technical reviews.                      | [5] |

#### PART - B

# 5 × 10 Marks = 50

| 2.  | Compare the waterfall model and the spiral model.                                                                  | [10]            |  |
|-----|--------------------------------------------------------------------------------------------------------------------|-----------------|--|
|     | OR                                                                                                                 |                 |  |
| 3.  | Explain CMMI. Describe about team process models.                                                                  | [10]            |  |
| 4.  | Discuss the significance of non-functional requirements. And also explanon-functional requirements are classified. | ain how<br>[10] |  |
|     | OR                                                                                                                 |                 |  |
| 5.  | Explain in detail about requirements validation and requirements management.                                       | [10]            |  |
| 6.  | Discuss about architectural design, architectural styles and patterns.                                             | [10]            |  |
| OR  |                                                                                                                    |                 |  |
| 7.  | What are the advantages and drawbacks in designing conventional components? them clearly.                          | Explain [10]    |  |
| 8.  | Describe a framework for product metrics and also explain about system testing. <b>OR</b>                          | [10]            |  |
| 9.  | Write short notes on the following:                                                                                |                 |  |
| 7.  | <u>c</u>                                                                                                           |                 |  |
|     | a) Validation testing                                                                                              |                 |  |
|     | b) Metrics for source code.                                                                                        | [5+5]           |  |
| 10. | Explain about RMMM and RMMM plan with a suitable example.                                                          | [10]            |  |
|     | OR                                                                                                                 |                 |  |
| 11  |                                                                                                                    | [10]            |  |
| 11. | Describe the software quality assurance activities and its significance.                                           | [10]            |  |
|     |                                                                                                                    |                 |  |

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Max. Marks: 75

 $5 \times 5$  Marks = 25