**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, November 2022**

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|  | **2BT3156** | Roll No. | Total Printed Pages: 1 |
| **2BT3156** |  |
| B. Tech. II Year III- Semester (Back) End Semester Examination, November 2020  **(DS)** | |
| **BDS03107: Software Engineering** | | | |

# Time : **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question / parts. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Use of following supporting material is permitted during examination for this subject.

# **1.--------------------------Nil--------------------** **2.------------------Nil-----------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** |
| **Q.1** | **(a)** | Suppose you have to develop an ERP system for your University. Which software development model will you follow to develop the software? Explain with proper justification. | **(6)** |
|  |  |  |  |
|  | **(b)** | Differentiate between software verification and validation in brief. | **(6)** |
|  |  | **OR** |  |
| **Q.2** | **(a)** | Discuss about different models of SDLC. If all requirements are known in prior, which model will you prefer to develop the software? | **(6)** |
|  |  |  |  |
|  | **(b)** | Lehman has divided software into three categories- S, E and P type. Explain each of them in brief. | **(6)** |
|  |  | **UNIT-II (CO2)** |  |
| **Q.3** | **(a)** | Differentiate between functional and non-functional requirements. Give an example to support your answer. | **(6)** |
|  |  |  |  |
|  | **(b)** | Suppose you are working as software project manager for Travel and Tour related software project. Discuss various steps involved in Software Requirement Engineering Process for this. | **(6)** |
|  |  | **OR** |  |
| **Q.4** | **(a)** | What do you mean by Software Requirement Specification (SRS)? Create a SRS for Railway Reservation System. | **(6)** |
|  |  |  |  |
|  | **(b)** | Discuss Structured Analysis. Explain different components of structured analysis. | **(6)** |
|  |  | **UNIT-III (CO3)** |  |
| **Q.5** | **(a)** | The Manager has given an assignment to Amit that it has to extract the rating of a Movie from IMDb website. You have joined the team and have replaced Amit. How will you proceed towards the solution if you being the Tester and Debugger | **(6)** |
|  |  |  |  |
|  | **(b)** | Company SigmaX wants to move to Integration testing. You being the Tester how will you incorporate the steps involved in Integration Testing for you Software which is based on Online Shopping Website. | **(6)** |
|  |  | **OR** |  |
| **Q.6** | **(a)** | Discuss in brief the difference between Black-Box, White-Box and Grey Box testing. | **(6)** |
|  |  |  |  |
|  | **(b)** | Compare and contrast between Automatic testing and Manual testing. Write the name of various testing evolved in these categories | **(6)** |
|  |  | **UNIT-IV (CO4)** |  |
| **Q.7** | **(a)** | The Manager of Springx has given an assignment to Mandeep to check the quality by extracting the rating of a Movie from IMDb website. You have joined the team and have replaced Mandeep. How will you proceed towards the solution if you being the Reviewer. | **(6)** |
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|  | **(b)** | Difference among basic COCOMO Model, intermediate COCOMO Model with small examples. | **(6)** |
|  |  | **OR** |  |
| **Q.8** | **(a)** | Elaborate the importance of software development organization to obtain ISO 9001 certification. | **(6)** |
|  |  |  |  |
|  | **(b)** | Discuss how the reliability changes over the lifetime of a software product and a hardware product? | **(6)** |
|  |  | **UNIT V (CO5)** |  |
| **Q.9** | **(a)** | Suppose you are working on any medium size enterprise project. Elaborate various challenges for project management. | **(6)** |
|  |  |  |  |
|  | **(b)** | Explain why we need to measure software or products. What parameters we followed to measure software? | **(6)** |
|  |  | **OR** |  |
| **Q.10** | **(a)** | Discuss importance of Risk Management for Software project. Write down basic principles to be followed to develop a medium size enterprise project. | **(6)** |
|  |  |  |  |
|  | **(b)** | Suppose size of an Embedded software product is 80000 lines, Average salary is 24000/- per month. Determine the effort, time and cost required to develop the software product. | **(6)** |