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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B. Tech

SEM: VI - THEORY EXAMINATION (20.....- 20.....)

Subject: Product Lifecycle Management

Time: 3 Hours

Max. Marks: 100

General Instructions:*IMP: Verify that you have received the question paper with the correct course, code, branch etc.**1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.**2. Maximum marks for each question are indicated on right -hand side of each question.**3. Illustrate your answers with neat sketches wherever necessary.**4. Assume suitable data if necessary.**5. Preferably, write the answers in sequential order.**6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.***SECTION-A**

20

1. Attempt all parts:-

- 1-a. The term that is used for geometric modelling like solid modelling, wire frame modelling and drafting is known as(CO1,K1) 1
- (a) software package
- (b) operating system
- (c) application software
- (d) none of the mentioned
- 1-b. The kind of channel arrangement in which the retailers, wholesalers and producers act as a single system is classified as.....(CO1,K2) 1
- (a) conventional distribution channel
- (b) horizontal marketing system
- (c) vertical marketing system
- (d) static distribution channel
- 1-c. In a prototype model, working ____ of a system built until an acceptable prototype is achieved.(CO1,K1) 1
- (a) System
- (b) Prototype
- (c) Engineering
- (d) None of the mentioned above
- 1-d. If the user is not happy with the current prototype, it needs to ____ the 1

prototype.(CO2,K1)

- (a) Redefine
- (b) Define
- (c) Design
- (d) None of the mentioned above

- 1-e. Prototyping is an attractive idea for ____ and large systems. (CO3,K1) 1
- (a) Complicated
 - (b) Simple
 - (c) Developed
 - (d) All of the mentioned above
- 1-f. the testing have been stopped When_____(CO3,K1) 1
- (a) the faults have been fixed
 - (b) all the tests run
 - (c) the time completed
 - (d) the risk are resolved
- 1-g. Which process helps develop an accurate projection of a project's financial expenses and benefits? (CO4,K2) 1
- (a) fast tracking
 - (b) life cycle costing
 - (c) critical path analysis
 - (d) All the above
- 1-h. Which of the following type of histogram represents a normal distribution? (CO4,K1) 1
- (a) Comb
 - (b) Bell-shaped
 - (c) Skewed
 - (d) Plateau
- 1-i. What process involves deciding how to approach and plan the risk management activities for the project? (CO5,K2) 1
- (a) identifying risks
 - (b) planning risk management
 - (c) performing qualitative risk analysis
 - (d) performing quantitative risk analysis
- 1-j. Which of the following risks are derived from the software or hardware technologies that are used to develop the system? (CO5,K2) 1
- (a) Managerial risks
 - (b) Estimation risks
 - (c) Technology risks

(d) Organizational risks

2. Attempt all parts:-

- | | | |
|------|---|---|
| 2.a. | What do you mean by 'Part' in PTC Windchill? (CO1,K1) | 2 |
| 2.b. | what is digital manufacturing.(CO2,K1) | 2 |
| 2.c. | What are the three 3 levels of strategy? (CO3,K2) | 2 |
| 2.d. | Define Quality management system. (CO4,K1) | 2 |
| 2.e. | Define Organizational risk. (CO5,K1) | 2 |

SECTION-B

30

3. Answer any five of the following:-

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|------|--|---|
| 3-a. | Why are product lifecycles important. (CO1,K1) | 6 |
| 3-b. | Explain PLM Life cycle Model.(CO1,K1) | 6 |
| 3-c. | What is the main risk of product development? (CO2,K2) | 6 |
| 3-d. | How PLM helps in digitalization of an industry? (CO2,K2) | 6 |
| 3.e. | Write down the procedure to create a workflow template. (CO3,K2) | 6 |
| 3.f. | Explain Six Sigma Problem Solving Method? (CO4,K2) | 6 |
| 3.g. | What is Windchill Risk and Reliability? (CO5,K2) | 6 |

SECTION-C

50

4. Answer any one of the following:-

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|------|--|----|
| 4-a. | Explain Design Development Stages. (CO1,K2) | 10 |
| 4-b. | What is Validation of PLM. Explain Advantage and Disadvantage of PLM. (CO1,K2) | 10 |

5. Answer any one of the following:-

- | | | |
|------|---|----|
| 5-a. | Write a short note on:
(i) Windchill part management.
(ii) Windchill parts link. (CO2,K2) | 10 |
| 5-b. | Explain the futures of RP software and summarize about solid view, view expert, 3D view and STL view in detail.(CO2,K3) | 10 |

6. Answer any one of the following:-

- | | | |
|------|--|----|
| 6-a. | Define PLM Strategy? Explain selection and Implementation of strategy.(CO3,K2) | 10 |
| 6-b. | What is Supply Chain Management? What are 4 pillars of supply chain? (CO3,K2) | 10 |

7. Answer any one of the following:-

- | | | |
|------|---|----|
| 7-a. | What is a quality management system? Explain with an example.(CO4,K2) | 10 |
| 7-b. | Write the steps of making an organization in windchill.(CO4,K2) | 10 |

8. Answer any one of the following:-

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|------|---|----|
| 8-a. | Explain the use of sample mean and sample standard deviation for risk | 10 |
|------|---|----|

measurement.(CO5,K2)

- 8-b. Explain the technique of 'Risk Measurement, 'Risk Evaluation' and 'Risk Prediction' for natural disasters (CO5,K2) 10

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