Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14FP3022** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ADVANCES IN PACKAGING AND HANDLING OF FOODS** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Write a brief note on the following tests performed in packaging material:  WVTR . | CO1 | 5 |
| b. | Tearing strength. | CO1 | 5 |
| c. | Tensile strength. | CO1 | 5 |
| d. | COBB | CO1 | 5 |
| (OR) | | | | |
| 2. | a. | Discuss in detail about the various methods of vacuum packaging of foods with neat sketch of equipment**.** | CO3 | 15 |
| b. | Write note on ASLT. | CO1 | 5 |
| 3. | a. | Explain in detail about two piece can manufacture with neat sketch. | CO3 | 10 |
|  | b. | Discuss about double seaming operation in metal cans. | CO3 | 10 |
| (OR) | | | | |
| 4. | a. | Enumerate in detail the manufacturing of paper and paperboard with neat sketch. | CO3 | 15 |
|  | b. | What is meant by parchment paper? | CO1 | 5 |
| 5. |  | Explain in detail with diagram the various blow moulding techniques of plastic bottle manufacture. | CO1 | 20 |
| (OR) | | | | |
| 6. |  | Discuss in detail about the working principle of vertical form fill sealing machine with diagram. | CO3 | 20 |
|  |  |  |  |  |
| 7. | a. | Write notes on :Labelling. | CO3 | 10 |
|  | b. | Retort Processing and packaging.- | CO3 | 10 |
| (OR) | | | | |
| 8. |  | Describe the significance of Oxygen scavenging, ethylene scavenging and Carbon dioxide scavenging in active packaging of food materials. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Describe about various traditional storage structure for grains with neat labeled diagram. | CO2 | 20 |

ALL THE BEST