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 – April/May– 2017**

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| **Code :** | **14FP2037** | **Duration :** | **3hrs** |
| **Sub. Name :** | **TECHNOLOGY OF PACKAGING** | **Max. marks :** | **100** |

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

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | Enumerate the biological factors affecting quality of food products with examples. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Review the various methods involved in two piece can manufacturing with diagrams showing the steps involved. | CO1 | 20 |
| 3. | a. | Point out the importance of different strategies used in food packaging and illustrate them with examples. | CO1 | 12 |
|  | b. | Summarize the functions of packaging in food industry and give their importance. | CO1 | 8 |
| (OR) | | | | |
| 4. |  | Discuss the principle and manufacturing stages with diagrams for the following methods. Also appraise the applications of the methods.   1. Injection moulding. 2. Injection blow moulding. | CO2 | 20 |
| 5. |  | Review the process of glass manufacturing with a flow chart and explain glass container manufacturing by press and blow process with a neat sketch. | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Define paperboard. Review the various types of paperboard products used in food packaging with diagrams. | CO2 | 20 |
| 7. |  | Evaluate the types of form-fill-seal machine for applications in various sectors of food industry. | CO2 | 20 |
| (OR) | | | | |
| 8. | a. | Compare ultrasound sealing and induction sealing of plastic films. | CO2 | 10 |
|  | b. | Discuss the various moisture absorbents and scavengers used for maintaining freshness in active packaging of foods. | CO3 | 10 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Compare active and passive methods of modified atmosphere packaging. | CO3 | 5 |
|  | b. | Discuss the importance of different gases and the equipment used for achieving modified atmosphere packaging. | CO3 | 15 |

ALL THE BEST