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**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14FP2012** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FOOD PACKAGING TECHNOLOGY** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | Marks |
| 1. |  | Write a brief note on various tests performed in packaging material: |  |  |
| a. | Burst Strength. | CO1 | 5 |
| b. | Tensile Strength. | CO1 | 5 |
| c. | Tear Strength. | CO1 | 5 |
| d. | Water Vapour Transmission Rate. | CO1 | 5 |
| (OR) | | | | |
| 2. |  | Discuss the method of estimating the shelf life of food materials by Accelerated Shelf lifeTesting procedure. | CO1 | 20 |
| 3. | a. | Discuss in detail about two piece welded can processes. | CO1 | 12 |
|  | b. | Explain the importance of exhausting process in canning with its types. | CO2 | 8 |
| (OR) | | | | |
| 4. |  | With neat diagrams explain about glass manufacturing by blow and blow method of glass making. | CO2 | 20 |
| 5. | a | Explain the following methods of manufacturing of rigid plastic packaging materials.  Extrusion blow molding. | CO2 | 10 |
|  | b | Stretch blow molding. | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | Discuss in detail about the following with the help of diagrams:  Corrugated paperboard. | CO2 | 10 |
|  | b. | Laminated paperboard. | CO2 | 10 |
| 7. | a. | Discuss in detail the following:  Printing on food packages. | CO3 | 10 |
|  | b. | Labelling of Food products. | CO3 | 10 |
| (OR) | | | | |
| 8. |  | Describe in detail about the various concepts of active packaging with applications in foods packaging and preservation. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Define Modified Atmosphere Packaging and importance of it in food packaging. | CO3 | 5 |
|  | b. | Discuss various equipment used and the effect of gases in Modified Atmosphere Packaging. | CO3 | 15 |

ALL THE BEST