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

**G:\logo and QP Template\logo 3 Feb 2018 final.tif**

**End Semester Examination – Nov/Dec – 2018**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **14NT2006** | **Duration :** | **3hrs** |
| **Sub. Name :** | **NANOCOMPOSITES** | **Max. marks :** | **100** |

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q. No.** | |  | **Questions** | **Course Outcome** | **Marks** |
| 1. | |  | Elaborate the features of biodegradable protein nanocomposites. | CO1 | 20 |
|  | (OR) | | | | |
| 2. | |  | Explain the following: a. Fracture b. Yield c. Viscoelasticity. | CO1 | 20 |
|  | |  |  |  |  |
| 3. | |  | Compare and contrast composites and nanocomposites. | CO1 | 20 |
|  | (OR) | | | | |
| 4. | |  | Give an account of diffusion and permeability processing of nanocomposites. | CO1 | 20 |
|  | |  |  |  |  |
| 5. | |  | Describe any four instrumental methods of characterization of nanocomposites. | CO3 | 20 |
|  | (OR) | | | | |
| 6. | |  | Explain the applications of nanocomposites in biology and medicine. | CO2 | 20 |
|  |  | | | | |
| 7. | |  | Describe the surface mechanical of nanocomposites. | CO2 | 20 |
|  | (OR) | | | | |
| 8. | |  | Explain a. rubbery elasticity b. metal-matrix nanocomposites  c. polymer nanocomposites. | CO3 | 20 |
|  | |  |  |  |  |
|  | |  | **Compulsory:** |  |  |
| 9. | |  | Give a detailed account of hybrid nanocomposites. | CO3 | 20 |