

KADI SARVA VIDYALAYA UNIVERSITY
LDRP INSTITUTE OF TECHNOLOGY AND RESEARCH

B. E. Sem-III Mid Semester Examination

Subject Code: ME304

Subject Name: Material Science & Metallurgy

Date: 27-08-2014

Time: 12:00 to 1:30 P.m.

Branch: Mechanical & Automobile

Total Marks: 30

Instructions:

1. Make suitable assumption whenever necessary.
2. Figures to the right indicate full marks.

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| Q-1 | Define utmost applicable mechanical property for any five components mentioned below: 1. Drill Bit 2. Forging Hammer 3. Train coach spring 4. Turbine Blade 5. Winding wire of Motor 6. Milling machine Bed 7. Fasteners 8. Machine Structure | 05 |
| Q-2 | Describe Fatigue fracture. | 05 |
| Q-3 | Describe any two method for Powder Compaction. | 05 |
| Q-4 | Describe method used for finding the Phosphorous Percentage in Steel. OR Explain: Liquid Penetration Test. | 05 |
| Q-5 | Discuss: Characteristics of Powders. OR Explain process of Nucleation in Solidification of metal. | 05 |
| Q-6 | Discuss various steps of solidification of pure metal. | 05 |

BEST OF LUCK