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| Discipline :-  **MECHANICAL**  **ENGG.** | Semester:-  **5th** | Name of the Teaching Faculty:- **IPSITA BEHERA** |
| Subject:-  **Th1.**  **ENTREPRENEURSHIP and MANAGEMENT & SMART**  **TECHNOLOGY** | No of Days/per Week Class Allotted :- **5** | Semester From:- **17TH AUGUST,2020** To:- **30TH NOVEMBER,2020**  No of Weeks:- **15** |
| **Week** | **Class Day** | **Theory/ Practical Topics** |
| 1st | 1st | **Entrepreneurship**  Concept /Meaning of Entrepreneurship |
| 2nd | Need of Entrepreneurship |
| 3rd | Characteristics, Qualities and Types of entrepreneur, Functions |
| 4th | Barriers in entrepreneurship |
| 2nd | 1 | Entrepreneurs vrs. Manager |
| 2nd | Forms of Business Ownership: Sole proprietorship, partnership forms  and others |
| 3rd | Types of Industries, Concept of Start-ups |
| 4th | Entrepreneurial support agencies at National, State, District Level( Sources): DIC, NSIC,OSIC, SIDBI, NABARD, Commercial Banks, KVIC  etc. |
| 3rd | 1th | Entrepreneurial support agencies at National, State, District Level( Sources): DIC, NSIC,OSIC, SIDBI, NABARD, Commercial Banks, KVIC  etc. |
| 2nd | Technology Business Incubators (TBI) and Science and Technology  Entrepreneur Parks |
| 3rd | **Market Survey and Opportunity Identification (Business Planning)**  Business Planning |
| 4th | SSI, Ancillary Units, |
| 4th | 1st | Tiny Units, Service sector Units |
| 2nd | Time schedule Plan, Agencies to be contacted for Project  Implementation |
| 3rd | Assessment of Demand and supply and Potential areas of Growth |
| 4th | Identifying Business Opportunity |
| 5th | 1st | Final Product selection |
| 2nd | **Project report Preparation**  Preliminary project report |
| 3rd | Detailed project report, |
| 4th | Techno economic Feasibility |
| 6th | 1st | Project Viability |
| 2nd | **Management Principles**  Definitions of management |
| 3rd | Principles of management |
| 4th | Functions of management (planning, organising, staffing, directing and  controlling etc.) |
| 7th | 1st | Functions of management (planning, organising, staffing, directing and  controlling etc.) |
| 2nd | Level of Management in an Organisation |
| 3rd | **Functional Areas of Management**  a) Production management  Functions, Activities |

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|  |  | Productivity |
| 4th | * Quality control   Production Planning and control |
| 8th | 1st | b) Inventory Management  Need for Inventory management Models/Techniques of Inventory management |
| 2nd | Financial Management  Functions of Financial management Management of Working capital |
| 3rd | Costing (only concept)  Break even Analysis |
| 4th | Brief idea about Accounting Terminologies: Book Keeping, Journal  entry, Petty Cash book, P&L Accounts, Balance Sheets(only Concepts |
| 9th | 1st | Marketing Management  Concept of Marketing and Marketing Management |
| 2nd | Marketing Techniques (only concepts)  Concept of 4P s (Price, Place, Product, Promotion) |
| 3rd | Human Resource Management  Functions of Personnel Management |
| 10th | 1st | Manpower Planning, Recruitment, Sources of manpower, Selection process, Method of Testing, Methods of Training & Development,  Payment of Wages |
| 2nd | **Leadership and Motivation**  Leadership  Definition and Need/Importance  Qualities and functions of a leader |
| 3rd | Manager Vs Leader  Style of Leadership (Autocratic, Democratic, Participative) |
| 4th | b) Motivation  Definition and characteristics  Importance of motivation |
| 11th | 1st | Factors affecting motivation  Theories of motivation (Maslow) |
| 2nd | Methods of Improving Motivation  Importance of Communication in Business |
| 3rd | Types and Barriers of Communication |
| 4th | **Work Culture, TQM & Safety**  Human relationship and Performance in Organization |
| 12th | 1st | Relations with Peers, Superiors and Subordinates |
| 2nd | TQM concepts: Quality Policy, Quality Management, Quality system |
| 3rd | Accidents and Safety, Cause, preventive measures, |
| 4th | General Safety Rules , Personal Protection Equipment(PPE) |
| 13th | 1st | **Legislation**  a) Intellectual Property Rights(IPR) |
| 2nd | Patents, Trademarks, Copyrights |
| 3rd | b) Features of Factories Act 1948 with Amendment (only salient points) |
| 4th | c) Features of Payment of Wages Act 1936 (only salient points) |
| 14th | 1st | **Smart Technology**   * Concept of IOT, How IOT works |
| 2nd | * Components of IOT, Characteristics of IOT, Categories of IOT |



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|  | 3rd | * Applications of IOT- Smart Cities, Smart Transportation, Smart Home,   Smart Healthcare, Smart Industry, Smart Agriculture, Smart Energy Management etc. |
| 4th | * Applications of IOT- Smart Cities, Smart Transportation, Smart Home, Smart Healthcare, Smart Industry, Smart Agriculture, Smart Energy Management etc. |