

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FOURTH SEMESTER B.TECH DEGREE EXAMINATION, APRIL 2018

Course Code: MP204

Course Name: INDUSTRIAL ENGINEERING (PE)

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any three full questions, each carries 10 marks.

Marks

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|---|----|---|-----|
| 1 | a) | Define Industrial Engineering. | (2) |
| | b) | Define Productivity. Explain various productivity ratios. | (4) |
| | c) | Explain the factors affecting the productivity. | (4) |
| 2 | a) | Explain application of Industrial Engineering. | (2) |
| | b) | Explain the various stages of product design. | (4) |
| | c) | Explain the product life cycle curve. | (4) |
| 3 | a) | Explain the role of Industrial Engineers. | (2) |
| | b) | Explain the method of improving the productivity. | (3) |
| | c) | Explain about history and development of Industrial Engineering. | (5) |
| 4 | a) | What is product planning? Explain the various phases of product planning. | (3) |
| | b) | Explain in detail about various product and services. | (3) |
| | c) | Explain about productivity of Indian industry. | (4) |

PART B

Answer any three full questions, each carries 10 marks.

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| 5 | a) | Explain the about Product standardisation and its advantages. | (4) |
| | b) | What is mean by value Engineering? | (3) |
| | c) | What is mean by value of the product? | (3) |
| 6 | a) | Explain about the different types of values in value Engineering. | (3) |
| | b) | Define work study. | (3) |
| | c) | Explain about product simplification and its advantages. | (4) |
| 7 | a) | Differentiate cycle graph and Chrono cycle graph with example? | (4) |
| | b) | Explain the different charts used for recording the facts in the work study. | (3) |
| | c) | Describe the steps involved in method study | (3) |
| 8 | a) | Explain the various steps involved in value Engineering. | (4) |
| | b) | Describe how principle of motion economy would be applied in assemble line of an organisation. | (4) |
| | c) | Explain various symbols used in process charts. | (2) |

PART C

Answer any four full questions, each carries 10 marks.

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| 9 | a) | Define work study and its advantages. | (5) |
| | b) | Explain the steps involved in the time study. | (5) |
| 10 | a) | Explain about the work sampling. | (5) |
| | b) | Explain the various allowances given while deciding standard time. | (5) |
| 11 | a) | Define ergonomics and its merits. | (5) |

- b) Explain about design of displays and control. (5)
- 12 a) Explain about Anthropometry. (5)
- b) Explain about PMTS. (5)
- 13 a) Differentiate between the normal time and standard time. (5)
- b) Explain about design of work station. (5)
- 14 a) Explain about human factors engineering. (5)
- b) Explain the various methods for finding out performance rating factor. (5)
