

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code : 81889

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2025.

Seventh/Ninth Semester

Civil Engineering

OIM 353 — PRODUCTION PLANNING AND CONTROL

(Common to : Aeronautical Engineering/Aerospace Engineering/
Automobile Engineering/Biomedical Engineering/Computer Science and Design/
Computer Science and Engineering/Computer Science and Engineering
(Artificial Intelligence and Machine Learning)/Computer Science and Engineering
(Cyber Security)/Computer and Communication Engineering/Electrical and
Electronics Engineering/Electronics and Communication Engineering/
Electronics and Instrumentation Engineering/Electronics and Telecommunication
Engineering/Environmental Engineering/Geoinformatics Engineering/Industrial
Engineering/Industrial Engineering and Management/Instrumentation and Control
Engineering/Manufacturing Engineering/Marine Engineering/Materials Science and
Engineering/Mechanical Engineering/Mechanical Engineering (Sandwich)/
Mechanical and Automation Engineering/Mechatronics Engineering/
Medical Electronics/Petrochemical Engineering/Production Engineering/
Robotics and Automation/Safety and Fire Engineering/Agricultural Engineering/
Artificial Intelligence and Data Science/Bio Technology/Biotechnology and
Biochemical Engineering/Chemical Engineering/Chemical and Electrochemical
Engineering/Computer Science and Business Systems/Fashion Technology/
Food Technology/Handloom and Textile Technology/Information Technology/
Petrochemical Technology/Petroleum Engineering/Pharmaceutical Technology/
Plastic Technology/Textile Chemistry/Textile Technology)

(Regulations 2021)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What do you understand by break even analysis?
2. What are the advantages of specialization?
3. What is meant by synthetic data?
4. Define time study.

5. Bring out the difference between value analysis and value engineering.
6. What is meant by machine balancing?
7. What is the use of Gantt charts?
8. Define master scheduling.
9. Define EOQ.
10. Mention the advantages of two bin system.

PART B — (5 × 13 = 65 marks)

11. (a) List and discuss the major objectives of planning and control.

Or

- (b) Explain how standardization and simplification benefits various departments of a company.
12. (a) Explain briefly the following techniques of work measurement
 - (i) Time study. (4)
 - (ii) Production study. (4)
 - (iii) Work sampling. (5)

Or

- (b) Explain the following :
 - (i) Micro motion. (7)
 - (ii) Memo motion study. (6)
13. (a) What are the steps involved in process planning? Explain in detail.

Or

- (b) Explain how process capabilities are analyzed in a multi product system.
14. (a) Explain the various charts used in line of balance.

Or

- (b) What is meant by dispatching? Enumerate and list the various functions of dispatching and explain various documents raised by the dispatcher.
15. (a) Discuss the ABC analysis and its significance in the inventory control with suitable examples.

Or

- (b) Discuss the costs associated with inventory.

PART C — (1 × 15 = 15 marks)

16. (a) Explain the functional and operational aspects of products design with suitable examples.

Or

- (b) A manufacturer sells a product for Rs.10 per unit. He incurs a fixed cost of Rs. 50,000 and Variable cost of Rs.7 per unit. Find the break even production quantity and also the number of units to be produced to get a profit of Rs. 10,000.
-

