



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

SUMMER-2024	
Exam Seat No.:	
Academic Year:2023-2024	Semester:IV
Class:SY	Program:B.Tech
Branch Code:ROB	Pattern:2022
Name of Course:Industrial Management	Course Code:ROB222015
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 2 pages.
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Question No. 1 Attempt following Question

- 1a) A1 What are the levels of industrial management? Explain their role and importance. (6) CO1
- A2 What is the contribution of Henry Fayol to Management thought?

Question No. 2 Attempt following Question

- 2a) Differentiate between Private sector and Cooperative Sector in details. (6) CO2

Question No. 3 Attempt following Question

- 3a) A1 Define the term 'Work Measurement'. Explain the term 'Qualified Worker' with respect to time study. (8) CO3
- A2 What is a multiple activity chart? State one application with suitable example.

OR

- 3b) B1 What are the advantages of double sampling plans? (8) CO3
- B2 The following is the elemental work carried out in assembly

Element	Observed Time (min)	Performance rating (%)	Frequency	Relaxation allowance (%)
1	3.60	80	1	10
2	1.60	80	1	12
3	6.00	75	1	12

4	0.50	100	1	10
5	3.50	100	1	10
6	0.85	80	1	12
7	3.80	90	1	10

Calculate the standard time for the job if the permissible contingency allowance of 3% is allowed.

3c) C1 What is statistical quality control? Describe the control charts for variables. (8) CO3

C2 What are the control functions in production planning and control?

OR

3d) D1 What is an outline process chart? State one application. 2M (8) CO3

D2 An industrial engineer of one company observed the following while carrying out a preliminary study to determine utilization of a fork lift truck

1) Fork Lift Working = 60%

2) Fork Lift Idle = 40%

How many observations need to be taken if the result is to be obtained with 95% confidence level at 5% error margin?

Question No. 4 Attempt following Question

4a) What is Supply chain management? Explain efficiency and transparency with respect to supply chain management (8) CO4

OR

4b) Enlist and explain supply chain challenges in automotive industry. (8) CO4

4c) What is the meaning of outsourcing? What are the current trends in supply chain management? (8) CO4

OR

4d) A1 What is demand planning in supply chain management? (8) CO4

A2 How can supply chain cost be reduced?

Question No. 5 Attempt following Question

5a) What are the differences between information system & management information system? (8) CO5

OR

5b) Explain the levels of Information system in detail. (8) CO5

5c) Enlist the types of Information system. Explain decision support system in detail. (8) CO5

OR

5d) State and explain what are the Ways of Developing Secure Information System. (8) CO5

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