





Duration: - 3 Hours

Marks: 80 Marks

- N.B.: (1) Question No 1 is Compulsory.  
(2) Attempt any three questions out of the remaining five.  
(3) All questions carry equal marks.  
(4) Assume suitable data, if required and state it clearly.



- Q.1 Solve any four** 20
- a. Explain Action Analytics with example.
  - b. What is the role of Centralization and Tie Strength in social network analysis?
  - c. Highlight the differences between Social Media Text Analytics and Hyperlink Analytics.
  - d. Explain the challenges faced while performing Social Media Analytics.
  - e. Explain how Social Network Visualization enhances the interpretation of large-scale online interactions.
- Q.2**
- a. What is social network structure? List at least two different networks that exist within Instagram. For each one, answer the following: 10
    - i. What constitutes a node?
    - ii. What constitutes an edge?
    - iii. Is it directed?
    - iv. Is it weighted? If so, what does the weight indicate?
    - v. What is the smallest component in the graph?
  - b. Explain each of the seven layers in Social Media Analytics and how their integration gives a complete view for business intelligence, with real-life examples. 10
- Q.3**
- a. Discuss the role of text analytics in social media analytics. Using a hypothetical social media dataset, explain the process of extracting meaningful insights using text analytic. 10
  - b. What is a social media-based recommendation system and how can social media-based recommendation systems be used to improve customer service and support, explain with example? 10
- Q.4**
- a. What is search engine optimization? What are the different methods to do it? consider a small, local bakery in Dadar struggled with low online visibility despite having a loyal customer base. Explain how they can improve the visibility using SEO strategies? 10
  - b. What are social media KPIs? Identify five essential KPIs for an e-commerce brand launching a new product via influencer marketing on Instagram. How do these KPIs support business decision-making? 10

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Time: 3-hour

Max. Marks: 80

- N.B.: (1) Question NO. 1 is Compulsory.  
 (2) Attempt any **THREE** questions out of the remaining five.  
 (3) All questions carry equal marks.  
 (4) Assume suitable data, if required, and state it clearly.  
 (5) Notations carry the usual meaning.

Q.1 Answer any **FOUR**.

20

- Explain the necessity of project management in achieving organizational goals.
- What is Goldratt's critical chain method?
- What are the numeric and non-numeric models of project selection?
- What is concurrent engineering?
- Explain various Reasons for project termination.
- Define scope creep. What are two ways to control it in a project?

Q.2

- Describe the typical and atypical project life cycles, highlighting the stages in the stage-gate process.

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- Assume that ABC Inc. is considering two projects, namely Project X and Project Y, and wants to calculate the NPV for each project. Both project X and project Y are four-year projects, and the cash flows of both projects for four years are given below:

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Year	Project A Cash Flows in Rs.	Project B Cash Flows in Rs.
1	5000	1000
2	4000	3000
3	3000	4000
4	1000	6750

The firm's cost of capital is 10% for each project, and the initial investment amount is Rs.10,000. Calculate the NPV of each project and determine in which project the firm should invest.

Q.3

- What are the advantages and risks of outsourcing in project management?
- List the key components of a project communication plan.
- Describe the methods of project cost estimation and differentiate between top-down and bottom-up budgeting approaches.

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Q.4

- What are the different types of contracts? Draw the graph showing risk exposure to the buyer and seller in various contract types.

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b. A small project consisting of ten activities has the following characteristics:

Activity	Preceding Activity	Time Estimate weeks		
		Optimistic	Most likely	Pessimistic
A	-	4	5	12
B	-	1	1.5	5
C	A	2	3	4
D	A	3	4	11
E	A	2	3	4
F	C	1.5	2	2.5
G	D	1.5	3	4.5
H	BE	2.5	3.5	7.5
I	H	1.5	2	2.5
J	F,G,I	1	2	3

Determine the critical path.

- Q.5 a. Explain the Probability and impact matrix. What are the risk response strategies for negative risks(threats) and positive risks(opportunities). 10
- b. Explain the four stages of team development and growth. 10
- Q.6 a. Discuss the various reasons for project termination and explain different types of project termination. 10
- b. Explain the importance of ethics in projects. 05
- c. Explain the Triple constraint of project management in brief. 05