

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION MAY 2026
(Sixth Semester)

Branch – NETWORKING & MOBILE APPLICATION

MAJOR ELECTIVE COURSE – II – SOCIAL NETWORK ANALYSIS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	What is a “leader” in social network analysis typically characterized by? (i) Has no connections (ii) Has the highest number of connections (iii) Avoids communication (iv) Is isolated	K1	CO1
	2	Show which concept is illustrated when two employees frequently interact because they sit near each other. (i) Homophily (ii) Structural holes (iii) Propinquity (iv) Density	K2	CO1
2	3	Name the type of network segment that is identified by the researcher rather than by member themselves. (i) Named network segment (ii) Unnamed network segment (iii) Primary group (iv) Clique	K1	CO2
	4	Show which group is formed when every member is directly connected to every other member. (i) Cluster (ii) Clique (iii) Segment (iv) Structural equivalence group	K2	CO2
3	5	Which method can be used to find informal systems in an organization? (i) Reviewing payroll records (ii) Examining seating arrangements only (iii) Mapping communication patterns (iv) Checking policy manuals	K1	CO3
	6	Show which of the following option is best for representing an emergent network in an organization. (i) Formal chart (ii) Informal advice (iii) Legal order (iv) Written rule	K2	CO3
4	7	What is meant by "diffusion" in networks? (i) Isolation of nodes (ii) Deletion of connections (iii) Spread of information, behavior or disease (iv) Network breakdown	K1	CO4
	8	Infer what happens when individuals have low adoption thresholds? (i) Diffusion slows down (ii) Diffusion is less likely (iii) Diffusion spreads more easily (iv) No diffusion occurs	K2	CO4
5	9	Name the ethical principle that ensures participants data is not disclosed without permission. (i) Cohesiveness (ii) Confidentiality (iii) Bridging (iv) Selection	K1	CO5
	10	Infer why informed consent is crucial in studies involving criminal networks. (i) To increase centrality (ii) To ensure ethical protection of participants (iii) To strengthen cohesiveness (iv) To promote diffusion	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	What is the term network? Explain its relevance as an information map.	K1	CO1
		(OR)		
	11.b.	Relate the concept of structural holes, weak ties and their importance in social networks.		
2	12.a.	Summarize how network segmentation can be done from the point of view of the observer.	K2	CO2
		(OR)		
	12.b.	Illustrate and explain the relationship between effectiveness and structural holes in social networks.		
3	13.a.	Apply the concept of informal systems to identify hidden networks in an organization.	K3	CO3
		(OR)		
	13.b.	Identify how social circles and clustering in a network influence collaboration and group cohesion.		
4	14.a.	Analyze epidemiological diffusion models with social influence diffusion models.	K4	CO4
		(OR)		
	14.b.	Examine how network structure (density, clustering, centrality) influences the speed and pattern of diffusion.		
5	15.a.	Inspect the social network analysis as a research paradigm and explain its advantages in studying social behaviour.	K4	CO5
		(OR)		
	15.b.	Analyze the issue of reverse or complex causality in social network analysis of crime.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Name the roles and positions of nodes in a network and discuss their impact on information dissemination.	K2	CO1
2	17	Explain and illustrate the role of social networks in enhancing individual and group effectiveness.	K2	CO2
3	18	Analyze the effect of skewed social connections on information flow within a network.	K4	CO3
4	19	Examine the strengths and limitations of the basic diffusion model in explaining real-world influence and decision-making.	K4	CO4
5	20	Explain the ethical challenges faced in social network research and suggest solutions to protect anonymity, privacy, confidentiality, and consent.	K5	CO5

Z-Z-Z

END