

Library

(REVISED COURSE)

(3 Hours)

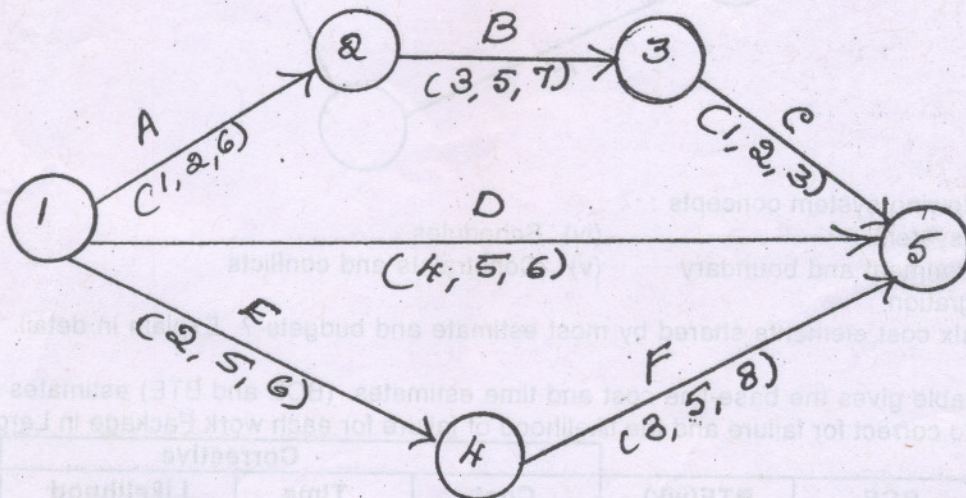
[Total Marks : 100

- N.B. (1) Question No. 1 is compulsory.
 (2) Attempt any four questions out of remaining six questions.
 (3) All questions carry equal marks.
 (4) Assume suitable data if necessary.
- (a) State the difference between CPM and PERT. Describe how GERT overcomes the limitations of PERT/CPM. 10
 - (b) What is the role of RFP ? Describe the contents of RFP. 10
 - (a) Draw the AON and AOA Network diagram for the following project and show the critical path. 10

Activity	Time	Immediate predecessor
A	2	—
B	5	A
C	2	A
D	5	B
E	5	B
F	5	C
G	1	D
H	1	D
I	2	G
J	1	E,F,H,I

- (b) For the following networks given, (a, m, b) for each activity. Compute :
- t_e and v for each activity
 - ES, EF, LS and LF for each activity
 - T_e and V_p for the project.

10



3. (a) Given the following scenario : 10
- Project** :— Write 20 programs per week for 50 weeks
Budget :— Budgeted cost per program is Rs. 3K
 At the end of 10 weeks 150 programs are written in 510 K.
 Calculate in Rs.

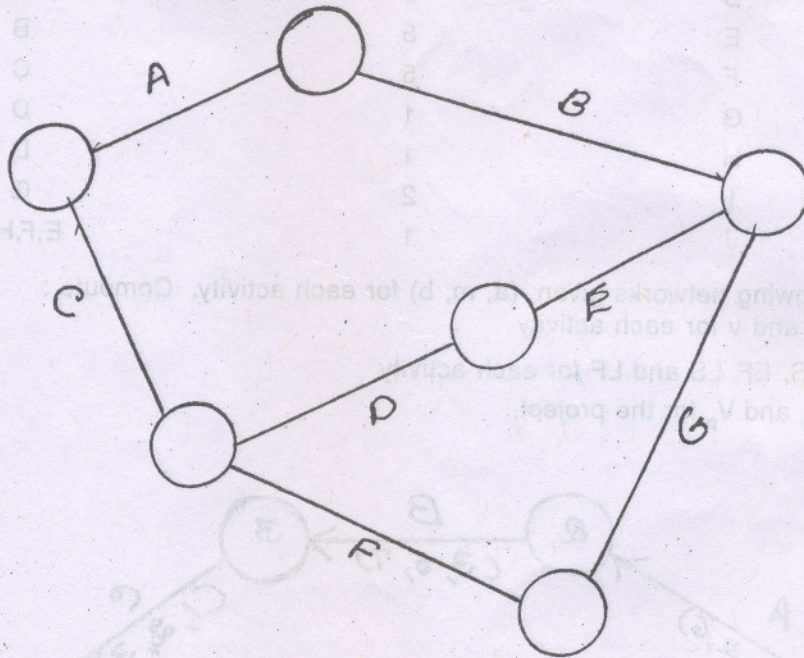
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|----------|----------|----------|---------|----------|
| (1) BCWS | (2) BCWP | (3) ACWP | (4) CPI | (5) SPI |
| (6) AV | (7) SV | (8) CV | (9) EAC | (10) ETC |

(b) The following project network and associated cost are given (T in days) c in \$ 1000s)

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Activity	Normal		Crash		Cost slope
	T _n	C _n	T _c	C _c	
A	6	6	3	9	
B	9	9	5	12	
C	3	4.5	2	7	
D	5	10	2	16	
E	2	2	2	2	
F	4	6	1	10	
G	8	8	5	10	

- (i) What is the earliest the project can be completed under normal conditions ? What is the direct cost ?
- (ii) What is the least costly way to reduce the project completion time by 2 days ? What is the project cost ?
- (iii) What is the earliest the project can be completed and what is the least costly way of doing this ? What is the project cost ?



- 4. (a) Explain the following system concepts : 10
 - (i) Sub system
 - (iv) Schedules
 - (ii) Environment and boundary
 - (v) Constraints and conflicts
 - (iii) Integration
- (b) What are the six cost elements shared by most estimate and budgets ? Explain in detail. 10
- 5. (a) The following table gives the base-line cost and time estimates (BCE and BTE) estimates of the cost and time to correct for failure and the likelihood of failure for each work Package in Largesse. 5

WBS element	BCE	BTE(wk)	Corrective		
			Cost	Time	Likelihood
L	\$ 20,000	9	\$ 4000	2	0.2
V	16,000	8	4000	2	0.3
T	32,000	5	8,000	2	0.1
U	20,000	7	12,000	3	0.2
S	16,000	3	4,000	1	0.3

- Compute expected cost (EC) and expected time (ET) for each activity.
- (b) What is feasibility study ? Explain its contents and purpose. 5
- (c) What is an influence diagram ? How it is used to identify and analyze risk sources and assign priorities to those sources. 10

6. (a) Describe the uses of PNIS throughout the phases of project life cycle. **10**
- (b) List out of the responsibility of the project manager in terminating the project. **5**
- (c) What are the advantages and disadvantages of functional organization ? **5**

7. Write short notes on any two :— **20**
- (a) System Development Cycle (ii) PDM (iii) Work Brakedown Structure (WBS)
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