1st Semester Regular/Back Examination – 2014
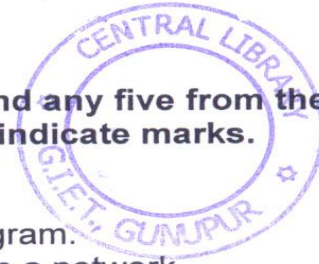## PROJECT MANAGEMENT
BRANCH(S): INDUSTRIAL ENGINEERING & MANAGEMENT,INDUSTRIAL ENGINEERING
Time: 3 Hours
Max Marks: 70

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1   Answer the following questions: (2 x 10)
   a) Distinguish between an activity and an event.
   b) Distinguish between AOA and AON network diagram.
   c) State Fulkerson's rule for numbering the nodes in a network.
   d) How expected time of an activity determined in PERT?
   e) What is meant by resource leveling in project scheduling?
   f) List various phases/ steps followed in execution of a project.
   g) Distinguish between monitoring and control.
   h) Name some tools/ charts used for project scheduling and control.
   i) List various types of risks associated with project.
   j) Sixty percent work of a project was scheduled to be completed by end of March at budgeted cost of 10 lakh rupees. But on review it was found that only fifty percent work has been completed at actual expenditure of rupees 9 lakhs. Determine Schedule Performance Index, Cost Performance Index and Critical Ratio

Q2 a) Write the duties and responsibilities of Project Manager.   (4)
    b) Explain matrix organization. Write its advantages.   (3)
    c) List some common reasons for failure of a project.   (3)

Q3   What are different types of feasibility analysis? Discuss various aspects   (10)
      that are considered in analysis of technical feasibility?

Q4   A firm has three projects A , B and C under considerations. It has   (10)
      identified critical factors as availability of inputs, availability of markets,
      economy of operation, low risk, favourable government policy and
      compatibility with promoter's interest. The company has rated the
      important factors for each project is as follows.

Factors	Weight	Scores (0 to 100)		
		A	B	C
Availability of inputs	0.20	90	85	85
Availability of markets	0.20	75	90	50
Economy	0.20	50	90	85
Less risks	0.15	90	65	80
Favouable government policy	0.15	90	85	70
Compatibility	0.10	60	80	70

      Which project should be selected? Give your recommendation with
      justification.

Q5 a) Distinguish between Finish-to-start (FS), Start-to-start (SS), Finish-to-   (4)
       Finish (FF), and Start-to-finish (SF) relationship between activities
    b) A project has 10 activities. The duration and precedence relationship   (6)
       between activities is given below.

Activity	A	B	C	D	E	F	G	H	I	J
Predecessor	-	-	A	A	A	B,C	B,C	D,G	F,G	E,H
Duration	5	4	3	4	5	6	5	4	3	3

Draw network diagram and determine minimum duration of project. Find critical path and total float for each activity.

Q6 a) Explain the various methods of Project termination in detail. (5)
   b) Explain Project Audits and the various methods of Audits in detail. (5)

Q7 a) If a project requires the expenditure of Rs. 18,00,000 and it is expected (10)
   that the project will start yielding return at the end of three years as
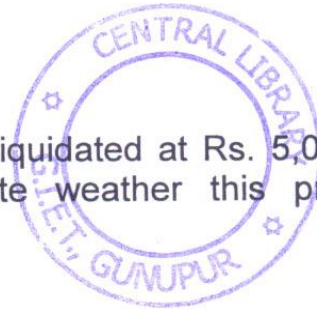   under.
   Return after 3rd year Rs. 3,00,000
   Return after 4th year Rs. 3,00,000
   Return after 5th year Rs. 4,00,000
   Return after 6th year Rs. 4,00,000
   Return after 7th year Rs. 4,00,000
   After end of 8th year, the project can be liquidated at Rs. 5,00,000. If
   present interest rate is 10% , evaluate weather this project is
   economically viable or not.

Q8   Write Short Notes (Any Two) (5 x 2)
   a) GERT
   b) Project Management Information System (PMIS)
   c) Project Charter
   d) Project Financing