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MANIPAL ACADEMY OF HIGHER EDUCATION

SIXTH SEMESTER B.DES (ID)/B.A. (ID) DEGREE EXAMINATION – APRIL 2018 SUBJECT: BID 306 – PROJECT MANAGEMENT

Friday, April 20, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 50

∠ Answer any FIVE of the following questions.

1. Explain the following terms:

- 1A. Project Network Techniques
- 1B. CPM in Project Management
- 1C. Sequence of Project Management
- 1D. Floats

 $(2\frac{1}{2} \text{ marks} \times 4 = 10 \text{ marks})$

- 2A. Explain the importance of resource leveling in project management.
- 2B. Enlist the characteristics of critical path in a network diagram.

(5+5 = 10 marks)

3. Differentiate between:

- 3A. CPM and PERT
- 3B. Activity and event
- 3C. AOA and AON networks
- 3D. EFT and LFT

 $(2\frac{1}{2} \text{ marks} \times 4 = 10 \text{ marks})$

4. A project comprises the following activities:

Activity	a	b	c	d	e	f	g	h	i	j
Alternative Nodes	1,2	2,3	2,4	3,5	3,6	4,6	4,7	5,8	6,8	7,8
Duration (days)	5	4	6	3	8	7	4	3	5	5

- 4A. Draw a network for the project.
- 4B. Calculate earliest and latest activity times for each activity.
- 4C. How much of slack do activity (3,5),(4,6) and (7,8) have?
- 4D. Highlight the activities which are critical.

(2+4+2+2 = 10 marks)

5. A project has the following activities, precedence relationships, and time estimates in weeks:

Activity	1-2	1-3	1-4	2-6	3-5	4-5	5-6	5-7	6-7	6-8	7-8	8-9
Optimistic Time	1	5	3	2	1	2	4	6	1	3	2	1
Most Likely Time	5	6	5	4	3	3	6	8	4	7	5	2
Pessimistic Time	9	7	7	6	5	4	8	10	7	11	8	3

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- 5A. Calculate the expected time or duration for each activity.
- 5B. Construct the network diagram
- 5C. Tabulate the values of ES,EF,LS,LF and slack for each activity
- 5D. Identify the critical path, and the project duration.

$$(2+4+2+2 = 10 \text{ marks})$$

- 6A. Define the term valuation. Briefly describe the purpose and principles of valuation.
- 6B. Write short notes on:
 - i) Profit based valuation
 - ii) Land and building method of valuation

$$(5+(2+3) = 10 \text{ marks})$$



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