

Duration 3 hours

Total Marks: 80

Instruction to the candidates, if any:-

1. Q.No.1 is compulsory
2. Attempt any three from remaining five
3. Assume any suitable data if required

Q.1 Answer the following (any five)

- i. Explain project overrun.
- ii. Explain types of project risk management.
- iii. Draw a project life cycle.
- iv. How are CATS and RATS used as control tools by the project manager?
- v. Give characteristics of an entrepreneur.
- vi. Explain "Project Commissioning".

(20)

Q2. (a) Given the following activities required for staging a community play on Independence Day,

- i. Construct an AON diagram.
- ii. Determine the earliest completion time for the play and the critical path.
- iii. Based on the critical path, what completion date are you 80% confident of achieving? 40% confident?

(12)

Activity	Predecessor	Time (Days)		
		a	m	b
1	-	2	4	6
2	-	5	5	5
3	2	3	5	7
4	1	7	10	13
5	1	11	12	13
6	2,4	5	6	7
7	3	9	10	11
8	3,6	5	7	9
9	4	7	9	11
10	5	3	3	3
11	7	15	17	19
12	8	6	8	10
13	9,10	7	8	15
14	7	12	14	16
15	12,13	16	17	18

Q.2. (b) Compare functional organization and pure project organization.

(08)

Q.3 An ancillary unit specializing in the manufacture of special purpose high pressure coolant pumps has entered into a contract with a large machine tool manufacturing company. The number of pump units to be supplied per month according to the contract is as shown in the table. According to this table, the company is to supply 50 coolant pumps during the first month followed by another 100 units during the second month and so on. The table displays the production goal over the next ten months. The third column gives the total number of units to be produced at the end of one month, at the end of three months and so on. This is the desired cumulative supply position.

Month	Planned	Cumulative
1	50	50
2	100	150
3	150	300
4	200	500
5	200	700

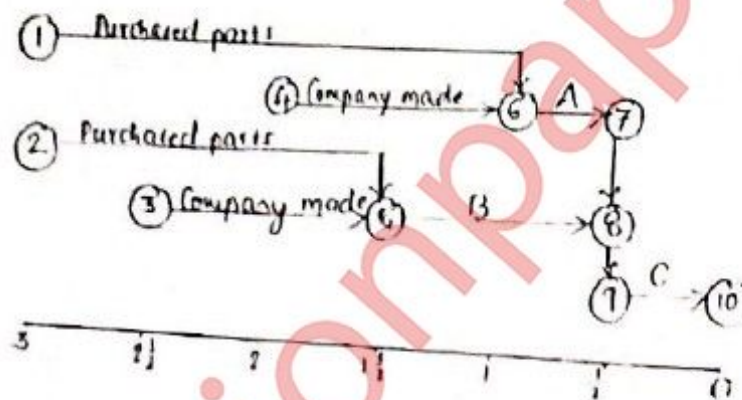
Turn Over

6	200	900
7	200	1100
8	150	1250
9	50	1300
10	50	1350

However, due to several unforeseen circumstances, the production of the pump units started a month later than originally scheduled. Further, the planned production schedule could not be achieved. After completion of 5 months, it was decided by the ancillary unit to take stock of the situation

Month	Unit Supplied	Cumulative
1	0	0
2	50	50
3	100	150
4	150	300
5	150	450

The major steps or processes involved in the manufacture of pump is given below.



This is called the progress flowchart. The pump unit C consists of two sub-assemblies A and B. The parts that go into the production of each sub-assembly are partly manufactured by the ancillary unit itself and partly purchased from another supplier. The status during the first five months is given in the following table:-

Event	Description	Status
1	Order placed for the parts that go into subassembly A	1350
2	Order placed for the parts that go into subassembly B	1000
3	Begin manufacture of parts that go into subassembly B	1200
4	Begin manufacture of parts that go into subassembly A	1050
5	Begin subassembly B	900
6	Begin subassembly A	900
7	Finish subassembly A	800
8	Finish subassembly B	600
9	Begin final assembly	600
10	Complete final subassembly and testing of units	450

Carry out the LOB study at the end of five month period, and identify the activities that are lagging behind.

(20)

Turn Over

- Q.4 (a) Give five different project cost estimates. (10)
- Q.4 (b) Explain the concept of work breakdown structure. (10)
- Q.5 (a) Explain the difference between industrial licence and letter of intent. (10)
- Q.5 (b) Explain different inventory techniques. Explain ABC and VED analysis in detail. (10)
- Q.6 (a) Explain tools and techniques used for achieving project quality control. (10)
- Q.6 (b) Give classification of entrepreneurs according to the type of business, use of professional skill, motivation, growth and stages of development. (10)

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