PROJECT MANAGEMENT
(HMTS 4202)

Time Allotted : 3 hrs   **Full Marks : 70**

Figures out of the right margin indicate full marks.

Candidates are required to answer Group A and
<u>any 5 (five)</u> from Group B to E, taking <u>at least one</u> from each group.

Candidates are required to give answer in their own words as far as practicable.

Group – A
(Multiple Choice Type Questions)

1. Choose the correct alternative for the following: **10 × 1 = 10**

(i)   Which one of the following is a characteristic of a project?
  (a) Ongoing   (b) Repetitive
  (c) Unique   (d) No definite beginning or end.

(ii)   Sub-dividing project into smaller work elements is known as _____
  (a) organization breakdown structure
  (b) work breakdown structure
  (c) cost breakdown structure
  (d) resource breakdown structure.

(iii)   Critical path in network analysis refers to _____
  (a) technically most difficult tasks within the project
  (b) the shortest path through the activity network
  (c) the longest path through the activity network
  (d) the tasks requiring maximum resources.

(iv)   The process to even out resource demand by delaying non-critical activities is known as _____
  (a) resource allocation   (b) resource levelling
  (c) resource mapping   (d) resource optimizing.

(v)   What is the correct sequence of project life cycle?
  (a) Plan, define, deliver, execute
  (b) Define, deliver, plan, execute
  (c) Plan, define, execute, deliver
  (d) Define, plan, execute, deliver.

(vi)   _____ verifies that the product meets quality requirements.
  (a) Quality control   (b) Quality assurance
  (c) Quality planning   (d) Quality management.

(vii)   Project audit is a method for _____
  (a) quality control   (b) quality planning
  (c) quality improvement   (d) quality assurance.

(viii)   In relation to project management, MS Project is a _____
  (a) technique   (b) tool   (c) skill   (d) knowledge.

(ix)   Crashing of project refers to _____
  (a) shortening of the project duration
  (b) ensuring project is completed on time
  (c) reducing duration of non-critical activities
  (d) inability to finish project on time.

(x)   Milestones and deliverables are defined through _____
  (a) project audit   (b) project scheduling
  (c) project report   (d) project life cycle.

Group – B

2.(a)   Define project. What are the triple constraints of a project?

(b)   What are the differences between project and operations?

(c)   What is project management? Why is it important?
                                                    4 + 4 + 4 = 12

3.(a)   What is a detailed project report (DPR)? Highlight the broad areas covered under a typical DPR.

(b)   What do you understand by capital cost and operating cost in relation to project. Explain giving at least 4 examples of each.
                                                    6 + 6 =12

Group – C

4.(a)   What is project scheduling? Discuss 2 important techniques of project scheduling.

(b)   What do you mean by project appraisal? What are the various factors to be considered in technical appraisal?
                                                    6 + 6 =12

5.(a)   Explain project life cycle.

(b)   What is the meaning of crashing of project duration? Why is it necessary?
                                                    8 + 4 = 12

Group – D

6. (a) Define the term 'activity' in a network. What is a dummy activity?

   (b) The 3 time estimates of a project are given below:

Activity	Optimistic time (t_o)	Most likely time (t_m)	Pessimistic time (t_p)
1 - 2	4	6	14
1 - 3	7	11	15
2 - 4	6	15	18
3 - 4	2	5	8
4 – 5	6	10	14
3 - 5	7	16	19

Using forward and backward pass calculation, arrive at the critical path and the expected project completion time.

2 + 10 = 12

7. (a) What is Total Quality Management (TQM)? What are the steps involved in TQM?

   (b) What are the purpose and benefits of project audit?

6 + 6= 12

Group – E

8. The details of a proposed project are as under:

Capital investment	:	Rs. 20 lakhs
Life of the project	:	6 years
Project implementation period	:	1 year
Cost of capital	:	14%

The below mentioned cash flows start occurring from the end of first year from project implementation (Rs. in lakhs):

Year	1	2	3	4	5	6
Cash Flow (Rs.)	2.00	5.00	8.00	6.00	3.00	2.00

Assess if the project is worthwhile to be taken up for implementation using NPV method.

Also estimate the internal rate of return, compare with the cost of capital and offer your comments.

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9. Write short notes (any 3)

   (i)   Organization breakdown structure
   (ii) PERT & CPM
   (iii) Criteria for software selection for project management
   (iv) Sources of project finance (any 4)

4 × 3= 12