MCA (Dual Degree)
(SEM-VI) THEORY EXAMINATION 2017-18
SOFTWARE PROJECT MANAGEMENT

Time: 3 Hours   *Total Marks: 100*

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1.   **Attempt *all* questions in brief.**   **2 x 10 = 20**

   a.   Why software project management is needed?
   b.   List any four key characteristics of a project.
   c.   Write down the various stages of project development life cycle.
   d.   What is a critical path? Explain with example.
   e.   Briefly explain the concept of pair programming.
   f.   What do you understand by cost performance index?
   g.   Define software quality assurance.
   h.   What are the attributes of a good test case?
   i.   What do you mean by Baseline budget?
   j.   Briefly explain any two risks associated with project management.

SECTION B

2.   **Attempt any *three* of the following:**   **10 x 3 = 30**

   a.   Discuss problems associated with software project planning.
   b.   What is Work Breakdown Structure (WBS)? Explain the types of WBS.
   c.   What do you mean by software review? Discuss various types of software
        reviews in detail.
   d.   Define quality. Discuss the various measures of software quality.
   e.   Describe the risk management process.

SECTION C

3.   **Attempt any *one* part of the following:**   **10 x 1 = 10**

   (a)   Describe various software project estimation methods.
   (b)   What do you mean by software project plan? Discuss.

4.   **Attempt any *one* part of the following:**   **10 x 1 = 10**

   (a)   What is the use of Gantt chart in allocation of resources? Explain.
   (b)   Differentiate between PERT and CPM. Discuss steps involved in the
         construction of a PERT chart.

5.   **Attempt any *one* part of the following:**   **10 x 1 = 10**

   (a)   What is earned value system? Describe any two earned value indicators with
         suitable example.
   (b)   What is project schedule? Describe the principle of project scheduling.

6.   **Attempt any *one* part of the following:**   **10 x 1 = 10**

    (a)   Explain various maturity levels of Capability Maturity Model (CMM).

    (b)   What are the objectives of software testing? Explain issues to be considered in software testing and maintenance.

7.   **Attempt any *one* part of the following:**   **10 x 1 = 10**

    (a)   What is the purpose of cost benefit evaluation? Explain any two cost benefit evaluation techniques.

    (b)   What do you understand by risk identification? Explain different methods of risk identification.