Assignment 7

The due date for submitting this assignment has passed.

As per our records, you have not submitted this assignment.

Due on 2023-03-10, 23:59 IST.

1) Which of the following functions sets all components of a vector to a single scalar value?
   - a. VecSetType
   - b. VecSet
   - c. VecSetFromOptions
   - d. VecCreate
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - a. VecSetType

2) Which of the following functions creates a new vector of the same type as an existing vector?
   - a. VecSetType
   - b. VecDuplicate
   - c. VecCreate
   - d. VecSetType
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - a. VecDuplicate

3) Which of the following functions is used to set the local and global sizes of a matrix?
   - a. MatSetValue
   - b. MatSetFromOptions
   - c. MatDestroy
   - d. MatSetType
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - a. MatSetValue

4) Which of the following functions is used in PETSc to set up the internal matrix data structures for later use?
   - a. MatSetValues
   - b. MatSetFromOptions
   - c. MatCreate
   - d. MatSet
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - a. MatSetValues

5) Which function in PETSc sets the function to compute the Jacobian as well as the location to store the matrix?
   - a. SNESSetFunction
   - b. SNESGetFromOptions
   - c. SNESGetJacobian
   - d. SNESGetJacobian
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - a. SNESSetFunction

6) Which function in PETSc creates an empty treenode?
   - a. TSNewTreenode
   - b. TSNewType
   - c. TSNewTime(type)
   - d. TSNewData
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - a. TSNewTreenode

7) Which function in PETSc gets the time of the most recently completed step?
   - a. TSSetTime
   - b. TSSetTimeStep
   - c. TSSetTimeDep
   - d. TSSetTimeRuntimes
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - a. TSSetTime

8) Which function in PETSc allows one to reset the time?
   - a. TSSetTime
   - b. TSSetTimeStep
   - c. TSSetTimeDep
   - d. TSSetTimeRuntimes
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - a. TSSetTime

9) Which function in PETSc sets the maximum (or final) time for time stepping?
   - a. TSSetMaxTime
   - b. TSSetMinTime
   - c. TSSetTimeStep
   - d. None of the above
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - a. TSSetMaxTime

10) Which PETSc function creates a global vector from a DM object?
    - a. DMDestroyLocalVector
    - b. CMShardGlobalVector
    - c. DMDestroyGlobalVector
    - d. CMCreateGlobalVector
    No, the answer is incorrect.
    Score: 0
    Accepted Answers:
    - c. DMDestroyGlobalVector