Assignment 7

The due date for submitting this assignment has passed.

Due on 2021-03-10, 23:59 IST.

As per our records you have not submitted this assignment.

1) Which of the following function sets all components of a vector to a single scalar value? *1 point*

- a. VecSetType
- b. VecSet
- c. VecSetFromOptions
- d. VecCreate

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. VecSet

2) Which of the following function creates a new vector of the same type as an existing vector? *1 point*

- a. VecSetType
- b. VecDuplicate
- c. VecCreate
- d. VecGetType

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. VecDuplicate

3) Which of the following function is used to set the local and global sizes of a matrix? *1 point*

- a. MatSetType
- b. MatSetFromOptions
- c. MatSetSizes
- d. MatGetType

No, the answer is incorrect.
Score: 0

Accepted Answers:
c. MatSetSizes

4) Which of the following function is used in PETSc to set up the internal matrix data structures for later use? *1 point*

- a. MatSetType
- b. MatSetFromOptions
- c. MatCreate
- d. MatSetUp

No, the answer is incorrect.
Score: 0

Accepted Answers:
d. MatSetUp

5) Which function in PETSc, sets the function to compute the Jacobian as well as the location to store the matrix? *1 point*

- a. SNESSetFunction
- b. SNESSetFromOptions
- c. SNESSetJacobian
- d. None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
c. SNESSetJacobian

6) Which function in PETSc creates an empty timestepper? *1 point*

- a. TSSetType()
- b. TSSetUp()
- c. TSSetProblemType()
- d. TSCreate()

No, the answer is incorrect.
Score: 0

Accepted Answers:
d. TSCreate()

7) Which function in PETSc gets the time of the most recently completed step? *1 point*

- a. TSSetTime()
- b. TSGetTime()
- c. TSGetTimeStep()
- d. TSGetStepNumber()

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. TSGetTime()

8) Which function in PETSc allows one to reset the time? *1 point*

- a. TSSetTime()
- b. TSGetTime()
- c. TSGetTimeStep()
- d. TSGetStepNumber()

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? *1 point*

- a. TSGetMaxTime()
- b. TSSetMaxTime()
- c. TSSetMaxSteps()
- d. None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. TSSetMaxTime()

10) Which PETSc function creates a global vector from a DM object? *1 point*

- a. DMCreateLocalVector()
- b. DMGetGlobalVector()
- c. DMCreateGlobalVector()
- d. DMCreateMatrix()

No, the answer is incorrect.
Score: 0

Accepted Answers:
c. DMCreateGlobalVector()