Assignment 6

The due date for submitting this assignment has passed.

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

As per our records you have not submitted this assignment.

1) Which of the following function builds a vector for a particular vector implementation? *1 point*

- a. VecSetType
- b. VecSetFromOptions
- c. VecCreate
- d. None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. VecSetType

2) Which of the following function is used to get the vector type name (as a string) from the object Vec? *1 point*

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
d. VecGetType

3) Which of the following function is used to configure the vector from the options database? *1 point*

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. VecSetFromOptions

4) Which of the following function used in PETSc to insert or add a block of values into a matrix? *1 point*

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
d. MatSetValues

5) Which function in PETSc returns a pointer to the element values in the matrix? *1 point*

- a. MatSetType
- b. MatGetArray
- c. MatCreate
- d. MatSetValues

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. MatGetArray

6) Which is an abstract PETSc object that manages all Krylov methods? *1 point*

- a. SNES
- b. KSP
- c. TS
- d. PC

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. KSP

7) Which is an abstract PETSc object that manages all nonlinear solvers? *1 point*

- a. SNES
- b. KSP
- c. TS
- d. PC

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. SNES

8) To compute y = x + beta y in PETSc which function needs to be used? *1 point*

- a. VecAXPY
- b. VecAYPX
- c. VecAXPBY
- d. VecMAXPY

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. VecAYPX

9) Which is an abstract PETSc object that manages all time-steppers (ODE integrators)? *1 point*

- a. SNES
- b. KSP
- c. TS
- d. PC

No, the answer is incorrect.
Score: 0

Accepted Answers:
c. TS

10) Which PETSc object is used to manage data for a structured grid in 1, 2, or 3 dimensions? *1 point*

- a. DMDA
- b. KSP
- c. TS
- d. PC

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. DMDA