

#### GRADE 11 PHYSICAL SCIENCES MARCH TEST

#### QUESTION 1

Various options are provided as possible answers to the following questions. Choose the correct answer and write ONLY the LETTER (A-D) next to the QUESTION NUMBER (1.1-1.6) on your folio paper. Example 1.7: D.

 The graphs below show the relationship between the net force and the acceleration for two masses: X and Y.



Which one of the following statements is true?

- A ASSESSMENT PROPERTY.
- 8 Letterare contract
- C VILLEGAN DAY
- D. Normal Commercial C
- 1.2 In which of the following cases would the resultant force acting on an object be equal to ON.
  - A decemporary obstacles accommodely
  - \$ 1800 beautiful from a trought of the little of the latest
  - Butter for the control of the control
  - D. A. Martin R. Marchell December 1, 1987, p. 18.
- 1.3 Which of the statements below best describes Weightlessness?
  - A Prichard Symmetric Street, by Superior
  - and significantly of second of the figure assembly as a property.
  - Antiquirum numbrant exemple interpretarily growing a succession.
  - A three-description and source for an integration of the con-
- 1.4 The inertia of an object ....

Millions.

- A Parameterson and the
- \$ . The property of the language of the langua
- C. Physician dray day a constraints
- D. Company of the Mathematical growth of the contraction
- 1.5 An astronaut has a weight F<sub>i</sub> on Earth. What distance, in terms of the radius of the Earth (r), will the astronaut be if his weight is a 54 of his weight (F<sub>i</sub>) on the

Physical Semann.

surface of the Earth?

- 31

S C

0

- 1.6 A box is pushed forward with a force of 100N but does not move. A possible reason for this is that:
  - A COUNTRY DIAMETER
  - Million J. V. Serman, and South P. 1981.
  - C Thomas across to use their Other
  - D THE STATE AND

[12]

#### QUESTION 2

The grade 11 learners learn that there is more than one way to determine the resultant of two vectors. One way is the component method. They want to use this method to find the resultant of the forces acting on a bucket by the ropes from which the bucket is suspended. The bucket is suspended.

21 Set of the best of Committee

(2)

(19)

2.2 The tension in ripe P is 130N at an angle of 30" to the vertical and the tension in Q is 51 52N at 45" to the vertical.



#### Calculate the MAGNITUDIC of the:

221 Hot (4)

222 W. Hartingowe and E. C. Community (4)

2.2.3 Resultant of the horizontal components. (10)

2.2.4 Resultant of the vertical components. (1)

225 Section the Supposition of Street Name (6)

23 Laurel - Common of the Notice (0)

20 Paper Paper Paper Service

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**Karin Nielsen-Saines** 

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web jan 1 2017 the tightening sequence is generally following a star pattern or similar circular patterns if present are only used for the latest passes which ensures a better alignment of matching flanges and avoids local overloads in the gasket and rigid body motion in the joint bickford 1995

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web bolt torque is calculated for a flanged assembly using the following equation applied torque  $t \ k \ f \ d \ 12$  in fps unit where t torque in ft lb k dimensionless nut factor or tightening factor f axial force in pounds d nominal bolt diameter in inches in the metric system torque applied  $t \ k \ d \ f \ 1000$  where t torque in n m f bolt load in n

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web easy handling bolt numbering shall be done clockwise around the flange with the following sequence the table below shows the torque sequence for flanges with 4 to 32 bolts number of bolt studbolt tightening sequence to follow4 bolt flange1 3 2 48 bolt flange1 5 3 7 2 6 4 812 bolt flange1 7 4 10 2 8 5 11 3 9 6 1216 bolt

#### bolt tightening sequence procedures maxpro corp - Mar 09 2023

web for flanges with 12 or more bolts 1 st round 20 percent of final torque 2 nd round 40 percent of final torque 3 rd round 80 percent of final torque 4 th round 100 percent of final torque final round clockwise or counter clockwise around the flange please take note the above bolt tightening sequences are the most

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web jan 27 2021 the gasket type and arrangement of the flange connection are both critical to choosing which tightening sequence an assembler can use this article which is intended for supervisors engineers or anyone else who oversees bolted flange assembly or maintenance will discuss different torque sequences

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 $\begin{array}{c} \text{web number of bolt stud bolt tightening sequence to follow 4 bolt flange 1 3 2 4 8 bolt flange 1 5 3 7 2 6 4 8 12 bolt flange 1 7 4 10 2 8 5 11 3 9 6 12 16 bolt flange 1 9 5 13 3 11 7 15 2 10 6 14 4 12 8 16 20 bolt flange 1 11 6 16 3 13 8 18 5 15 10 20 2 12 7 17 4 14 9 19 24 bolt flange \\ \end{array}$ 

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web ensure the bolt lengths allow for a minimum of 2 3 threads protruding beyond the top of the nut when tightened bolts must be tightened according to the below sequence options assemble bolts hand tight maximum 30 of final tightening torque as per below cross pattern sequences

### tightening sequence inertech - Jul 13 2023

web step 1 liberally lubricate all load bearing surfaces including threads and flat washers then install and finger tighten all fasteners number the bolts flange according to the bolt torque sequence step 2 set the torque wrench to 1 3 of the target

torque value and tighten in an order bolts 1 2 3 4 until all have been tightened hytorc flange pattern calculator - Apr 10 2023

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web tightening sequence the first pass lightly tighten the first bolt then move directly across or 180 degrees for the second bolt then move1 4 turn around the circle or 90 degrees for the third bolt and directly across for the fourth continue this sequence until all bolts are tightened when tightening a four bolt flange use a criss cross bolt tightening sequence why it matters energed blog - Nov 05 2022

web dec 17 2020 bolt tightening sequence why it matters to complete a flange joint securely it is essential to control the stress variation in the flange joint components in the case of the gasket this needs to be compressed evenly across the flange face if you were to tighten adjacent bolts when those opposite remain loose the result will be bolt tightening procedure piping designer - Jun 12 2023

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