**ĐÁP ÁN PHẦN TỰ LUẬN KHỐI 10**:

|  |  |  |  |
| --- | --- | --- | --- |
| **Câu** | **Ý** | **Nội dung** | **Điểm** |
| **1****(1 điểm)** |  | + Tính được: **ω = 2πf = 10π ( rad/s)**+ Tính được: **v = R. ω = 18,85 m/s**+ Tính được : **aht = ω2R = 592,2 m/s2** | **0,25****0,25****0,25x2** |
| **2****(1điểm)** |  | + Tính được quãng đường xe đi được kể từ lúc hãm phanh là: Wđ2 – Wđ1  = A → **S = 12,86 m < 15 m** **→ an toàn** | **0,25****0,25x2****0,25** |
| **3****(1,5điểm)** | a | **Wt = mgh = 480J** | **0,25 x2** |
| b | **Wđ =** $\frac{1}{2}mv^{2}$ **= 270 J** | **0,25 x2** |
| c | + Trong quá trình rơi: động năng tăng, thế năng giảm.+ Cơ năng không được bảo toàn vì thế năng không chuyển hóa hoàn toàn thành động năng. | **0,25****0,25** |
| **4****(1điểm)** | a | Đây là va chạm mềm | **0,25** |
| b | Áp dụng định luật bảo toàn động lượng cho hệ kín gồm hai vật mX và mY ( mX + mY)v = mX.vX ….. mX + mY = 5 mX → $\frac{m\_{Y}}{m\_{X}}=4$ | **0,25****0,5** |
| **5****(0,5điểm)** |  | + Tính được công suất cần thiết để nâng vật lên: $P=\frac{A}{t}= \frac{mgh}{t}=3000W=3 kW$ → Máy 4 là phù hợp nhất | **0,25****0,25** |

**Lưu ý:**

* Sai 01 đơn vị trừ 0,25đ nhưng trừ không quá 0,5đ toàn bài.
* Nếu học sinh làm bằng cách khác đúng thì vẫn được điểm tuyệt đối số điểm của bài.

**ĐÁP ÁN TRẮC NGHIỆM KHỐI 10**

**Đáp án - Mã đề 153:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Câu** | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** |
| **A** | ● | ○ | ● | ○ | ○ | ○ | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● |
| **B** | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ○ | ● | ○ | ○ | ○ | ○ | ○ | ● | ● | ○ | ○ |
| **C** | ○ | ● | ○ | ● | ○ | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ● | ○ | ○ | ○ | ○ |
| **D** | ○ | ○ | ○ | ○ | ● | ○ | ○ | ○ | ○ | ● | ○ | ● | ● | ● | ○ | ○ | ○ | ○ | ● | ○ |

**Đáp án - Mã đề 170:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Câu** | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** |
| **A** | ○ | ○ | ○ | ○ | ○ | ○ | ● | ○ | ○ | ● | ● | ○ | ○ | ○ | ○ | ● | ● | ○ | ○ | ● |
| **B** | ● | ● | ○ | ○ | ● | ● | ○ | ○ | ● | ○ | ○ | ○ | ○ | ● | ● | ○ | ○ | ○ | ○ | ○ |
| **C** | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ○ | ○ | ○ | ○ | ● | ○ | ○ |
| **D** | ○ | ○ | ● | ● | ○ | ○ | ○ | ● | ○ | ○ | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ● | ○ |

**Đáp án - Mã đề 203:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Câu** | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** |
| **A** |  |  |  |  | ● |  |  |  | ● |  |  |  |  |  |  | ● |  |  |  |  |
| **B** | ● | ● | ○ | ● | ○ | ● | ● | ○ | ○ | ● | ● | ○ | ● | ● | ○ | ○ | ● | ○ | ○ | ○ |
| **C** | ○ | ○ | ● | ○ | ○ | ○ | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ● | ○ |
| **D** | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ○ | ○ | ● | ○ | ○ | ○ | ○ | ● |

**Đáp án - Mã đề 234:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Câu** | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** |
| **A** | ○ | ○ | ● | ○ | ○ | ● | ● | ○ | ● | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ● | ○ | ● |
| **B** | ● | ○ | ○ | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ● | ● | ○ | ● | ○ | ● | ○ | ● | ○ |
| **C** | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **D** | ○ | ● | ○ | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ○ | ● | ○ | ○ | ○ | ○ |