**ĐÁP ÁN**

**I.Trắc nghiệm ( 7 điểm ) Mỗi câu đúng 0,25 điểm**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ĐỀ CHẴN

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *002* | *008* | *004* | *006* |
| 1 | B | D | C | B |
| 2 | C | A | D | B |
| 3 | C | D | A | C |
| 4 | B | B | C | C |
| 5 | D | B | B | D |
| 6 | A | D | D | B |
| 7 | B | D | C | D |
| 8 | A | C | A | D |
| 9 | C | B | C | A |
| 10 | C | D | C | A |
| 11 | D | A | B | D |
| 12 | D | C | B | D |
| 13 | B | C | D | C |
| 14 | B | A | C | B |
| 15 | D | A | A | D |
| 16 | D | B | B | A |
| 17 | A | C | A | D |
| 18 | A | B | D | A |
| 19 | C | B | A | C |
| 20 | C | D | D | C |
| 21 | A | D | D | C |
| 22 | A | C | A | A |
| 23 | C | B | B | B |
| 24 | B | C | D | B |
| 25 | A | D | B | C |
| 26 | B | A | A | A |
| 27 | D | C | C | A |
| 28 | D | A | B | A |

 | ĐỀ LẺ

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *001* | *005* | *003* | *007* |
| 1 | C | B | D | D |
| 2 | B | A | D | A |
| 3 | C | A | B | D |
| 4 | C | B | A | D |
| 5 | B | B | D | A |
| 6 | D | A | C | C |
| 7 | D | C | D | A |
| 8 | B | C | C | B |
| 9 | C | A | C | B |
| 10 | A | D | B | C |
| 11 | C | B | B | A |
| 12 | A | A | D | A |
| 13 | B | D | A | B |
| 14 | B | D | D | C |
| 15 | D | B | A | A |
| 16 | C | B | C | C |
| 17 | A | C | D | A |
| 18 | B | A | A | B |
| 19 | C | D | B | D |
| 20 | A | A | A | D |
| 21 | D | C | B | B |
| 22 | A | D | C | C |
| 23 | B | D | B | D |
| 24 | A | B | C | D |
| 25 | A | C | C | B |
| 26 | D | D | B | C |
| 27 | B | C | A | B |
| 28 | D | C | A | C |

 |

**II.Tự luận**

**Đề 001, 003,005,007**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Bài | ý |  Nội dung | Điểm | Ghi chú |
| 1 | a | A = 5 cmT = = 0,2 s  | 0,50,5 | Viết đúng CT cho 0,25 đ |
| b | Lập tỉ số:  =>  Quãng đường đi được trong 2T là s1 = 2.4A=8AQuãng đường đi được trong thời gian  dựa vào sơ đồ dao động -> s2 = A vậy  s = 66,6cmTốc độ v = = 148 cm/s | 0,250,25 |  |
| 2 |  |  Tính được =0,4 m | 0,5 | Viết đúng CT cho 0,25 đ |
|  | Tính được v =f = 40 m/s | 0,5 |  |
| 3 |  | Xác định được k = 3Tính được ==1,5 cm | 0,25 |  |
|  | Tính được v =f = 15 cm/s | 0,25 |  |

**Đề 002, 004, 006, 008**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Bài | ý |  Nội dung | Điểm |  |
| 1 | a | Biên độ A = 4 cmTần số: =1HZ | 0,50,5 | Viết đúng CT cho 0,25 đ |
| b | Lập tỉ số:  Quãng đường đi được trong 5T là s1 = 5.4A=20AQuãng đường đi được trong thời gian  dựa vào sơ đồ dao động -> s2 = A vậy s = 21A=84cmTốc độ v = = 84/5,25 = 16 cm/s | 0,250,25 |  |
| 2 |  |  Tính được m | 0,5 | Viết đúng CT cho 0,25 đ |
|  | Tính được v =f = 100 m/s | 0,5 |  |
| 3 |  | Xác định được k = 4Tính được == 2 cm | 0,25 |  |
|  | Tính được v =f = 240 cm/s | 0,25 |  |