

## MODEL QUESTIONS

### PART 1 : ENGLISH

- \_\_\_\_\_ bravery is a great virtue  
a. No article                      b. the  
c. an                                      d. a
- How can you afford to live \_\_\_\_\_ that meagre a salary.  
a. with                                      b. in  
c. on                                      d. to
- Either James or his brothers \_\_\_\_\_ written the mail  
a. have                                      b. has  
c. is                                      d. are
- He plays cricket \_\_\_\_\_ ?  
a. didn't he                      b. don't he  
c. isn't he                      d. doesn't he
- There was \_\_\_\_\_ food in the fridge. It was nearly empty.  
a. a little                                      b. a few  
c. little                                      d. few

### PART 2 : PHYSICS

- Red light has a wavelength of  $7000 \text{ \AA}$ . In  $\mu\text{m}$  it is  
a.  $0.7 \mu\text{m}$                                       b.  $7 \mu\text{m}$   
c.  $70 \mu\text{m}$                                       d.  $0.07 \mu\text{m}$
- The distance travelled by a body, falling freely from rest in one, two and three seconds are in the ratio  
a.  $1 : 2 : 3$                                       b.  $1 : 3 : 5$   
c.  $1 : 4 : 9$                                       d.  $9 : 4 : 1$
- The rate of change of angular momentum is equal to  
a. Force  
b. Angular acceleration  
c. Torque  
d. Moment of Inertia
- If the distance between two masses is doubled, the gravitational attraction between them  
a. is reduced to half  
b. is reduced to a quarter  
c. is doubled  
d. becomes four times

- If the length of the wire and mass suspended are doubled in a Young's modulus experiment, then, Young's modulus of the wire  
a. remains unchanged  
b. becomes double  
c. becomes four times  
d. becomes sixteen times

### PART 3 : CHEMISTRY

- which of the following has higher electro negativity  
a. fluorine  
b. chlorine  
c. bromine  
d. iodine
- Noble gases have the electron affinity of value  
a. low                                      b. high  
c. zero                                      d. very high
- The electron affinity and atomic size are proportional  
a. directly  
b. inversely  
c. not but independent  
d. none of these
- The hybridization in  $\text{SF}_6$  is  
a.  $\text{sp}^3$                                       b.  $\text{sp}^3\text{d}$   
c.  $\text{sp}^3\text{d}^2$                                       d.  $\text{sp}^3\text{d}^2$
- Para magnetism is common in  
a. p-block                                      b. s-block  
c. d-block                                      d. f-block

### PART 4 : MATHEMATICS

- Matrix A is of order  $2 \times 3$  and B is of order  $3 \times 2$  then order of matrix BA is  
a.  $3 \times 3$                                       b.  $2 \times 3$   
c.  $2 \times 2$                                       d.  $3 \times 2$
- In a third order determinant the cofactor of  $a_{23}$  is equal to the minor of  $a_{23}$  then the value of the minor is  
a. 1                                      b.  $\Delta$

