



### USE OF PREPOSITION

1. The committee regrets that it cannot accede \_\_\_\_\_ your request for a month's paid leave.  
A. for                                      B. to                                      C. in                                      D. with
2. Our college is affiliated \_\_\_\_\_ the University of Sindh.  
A. with                                      B. to                                      C. for                                      D. in

### ERROR DETECTION

1. George has not completed the assignment yet and Maria hasn't neither.  
A                                      B                                      C                                      D
2. The sun rose before I got up.  
A                      B                      C                      D

### USE OF VERBS

1. Lucy is a good girl and .....for a brother.  
A. long                      B. longs                      C. is longing                      D. longed
2. Mango is fruit that I.....  
A. am always liking                      B. have been always liking  
C. have always liked                      D. have been always liked

### USE OF PAIRS OF WORDS:

1. Some wicked ..... made .....of their idol.  
A. fun, fans                      B. fan, fun                      C. fans, fun                      D. fans, fans
2. The male child who is the only..... to the property has long, smooth, golden.....  
A. hare, heir                      B. heir, hare                      C. hairs, hare                      D. heir, hair

### USE OF TENSES

1. I wish I were young forever.  
A. Present indefinite tense                      B. Present perfect tense  
C. Past indefinite tense                      D. Past perfect tense
2. Death toll of the earthquake victims is feared to have increased.  
A. Past indefinite tense                      B. Past perfect tense  
C. Present indefinite tense                      D. Present perfect tense

**PART-II MATHEMATICS**

1.  $\frac{d}{dx}(ax - b)^n =$

- a)  $n(ax^{n-1} - b)$
- b)  $n(ax - b)^{n-1}$
- c)  $nax^{n-1}$
- d)  $na(ax - b)^{n-1}$

2. If  $f(x) = \cos x$ , then  $f'(\pi) =$

- a) -1
- b) 0
- c)  $\frac{1}{2}$
- d) 1

3.  $\frac{d}{dx}(5^x) =$

- a)  $\frac{5^x}{\ln 5}$
- b)  $\frac{\ln 5}{5^x}$
- c)  $5^x \ln 5$
- d)  $5^x$

4.  $\int \frac{f'(x)}{f(x)} dx =$

- a)  $\ln x + c$
- b)  $\ln f(x) + c$
- c)  $\ln f'(x) + c$
- d)  $f'(x) \ln f(x) + c$

5.  $\int_1^2 (x^2 + 1) dx =$

- a)  $\frac{3}{10}$
- b) 2
- c)  $\frac{10}{3}$
- d) 0

6.  $\int_0^2 f(x) dx =$

- a)  $\int_2^0 f(x) dx$
- b)  $-\int_0^2 f(x) dx$
- c)  $-\int_{-2}^0 f(x) dx =$
- d)  $\int_0^1 f(x) dx + \int_1^2 f(x) dx$

SAMPLE PAPER

### **PHYSICS (PART-III)**

- 1. If the x-component of the resultant of two vectors is positive and its y-component is negative, the resultant subtends an angle of \_\_\_\_\_ on x-axes.**
  - a)  $0^\circ$
  - b)  $90^\circ$
  - c)  $180^\circ$
  - d)  $180^\circ + \theta$
- 2. A motorbike undergoes suffers head on collision with another motorbike with 100 N force of impact for a short time of 2 seconds. The impulse is given by**
  - a) 50 NS
  - b) 100 NS
  - c) 150 NS
  - d) 200 NS
- 3. If a certain transformer having 200 turns in its primary coil converts 11000 voltages to 220 volts for domestic purpose then the number of turns in secondary coil should be:**
  - a) 3
  - b) 4
  - c) 5
  - d) 6
- 4. The process which converts low voltage signals to high voltage is called \_\_\_\_\_:**
  - a) Amplification
  - b) Transistor
  - c) Output
  - d) Input
- 5. The minimum energy needed by a gamma ray photon to create an electron-positron pair is:**
  - a) 1.00 Mev
  - b) 1.01 Mev
  - c) 1.02 Mev
  - d) 1.03 Mev

SAMPLE