

## BIOLOGY ENTRANCE EXAM – 04

**I. One point is given for each correct answer.**

*(max. 15 points)*

|    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |
|----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
|    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| a) | X |   |   |   |   | X | X |   |   |    |    | X  |    |    |    |
| b) |   |   |   | X |   |   |   |   | X |    |    |    |    |    |    |
| c) |   | X |   |   |   |   |   |   |   | X  | X  |    |    | X  | X  |
| d) |   |   | X |   | X |   |   | X |   |    |    |    | X  |    |    |

**II. One point is given for each correct answer.**

*(max. 5 points)*

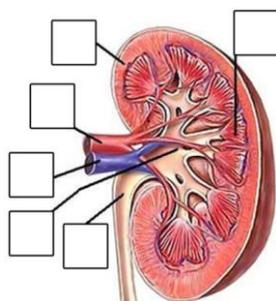
|          |          |          |          |          |          |          |          |          |           |           |           |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
| <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> |
| X        | X        |          |          | X        |          |          | X        |          |           |           | X         |

**III. Two points are given for each correct answer.**

*(max. 8 points)*

**IV. One point is given for each correct answer.**

*(max. 6 points)*



**V. One point is given for each correct answer.**

*(max. 6 points)*

|                                       |                          |                                       |
|---------------------------------------|--------------------------|---------------------------------------|
|                                       | Interphase               | Metaphase                             |
| Mitotic spindle                       | Not present              | Present                               |
| Appearance (structure) of chromosomes | Decondensed and uncoiled | Highly condensed and supercoiled      |
| Cellular localization of chromosomes  | Irregularly scattered    | Aligned in the equator of the spindle |