

All IBO examination questions are published under the following Creative Commons license:



CC BY-NC-SA (Attribution-NonCommercial-ShareAlike) - https://creativecommons.org/licenses/by-nc-sa/4.0/

The exam papers can be used freely for educational purposes as long as IBO is credited and new creations are licensed under identical terms. No commercial use is allowed.

| STUDENT CODE: |  |
|---------------|--|
|               |  |

# Theoretical Test Part B Answer Key

The questions in Part B may have more than one correct answer. Fill your answers in the Answer Sheet. The marks, numbers, or characters to answer questions in Part B vary depending on questions. Unless mentioned otherwise, mark the correct answers with "O" and incorrect answers with "—" for multiple choice questions on the Answer Sheet clearly, as shown below.

| No. | A | В | C | D | E | F        |
|-----|---|---|---|---|---|----------|
| В0. | 0 |   | 0 | _ | - | <u>.</u> |

• EVERY CELL MUST BE FILLED IN, OTHERWISE IT IS 0 POINT. Then you will get the points.

(Mark the correct answers with "O" and incorrect answers with "--" on the Answer Sheet clearly. 0.3, 0.5, or 0.6 points per cell, depending on the number of cells for the answer of each question)

| NO. | A | В | C            | D | E   | F               | G                                      | P | Q | R | S | T                     |
|-----|---|---|--------------|---|-----|-----------------|--|---|---|---|---|-----------------------|
| B1  | О |   | · <b>=</b> • | О | О   |                 | 100 (100 (100 (100 (100 (100 (100 (100 |   |   |   |   | gradicion<br>Policina |
| B2  |   | О | О            |   | -== |                 |  |   | О |   | О |                       |
| В3  |   | О |              | О | О   | in the state of | energy of the                          |   |   |   |   |                       |

B4 (Fill in the correct set of answers. 0.6 points per cell)

| A | В | С | D | E |
|---|---|---|---|---|
| 5 | 2 | 5 | 8 | 7 |

(Mark the correct answers with "O" and incorrect answers with "--" on the Answer Sheet clearly. 0.5, or 0.6 points per cell, depending on the number of cells for the answer of each question)

| No  | A            | В        | С            | D | E | J. JF |  |  |  |
|-----|--------------|----------|--------------|---|---|-------|--|--|--|
| B5  | O            |          | О            | О |   |       |  |  |  |
| В6  | О            | ·O       | О            |   |   |       |  |  |  |
| В7  | brd bre      | <b>-</b> | О            |   | O | О     |  |  |  |
| B8  |              | O        |              | О |   | О     |  |  |  |
|     | B9 (deleted) |          |              |   |   |       |  |  |  |
|     |              |          | <del>,</del> |   |   |       |  |  |  |
| B10 |              | O        |              | O | О |       |  |  |  |

| B11  | О        | О         | ==                    | О        | , and and |                        |
|------|----------|-----------|-----------------------|----------|-----------|------------------------|
| B12  | 0        | tent tree | <b>=</b> <del>-</del> |          | О         | Parties and the second |
| B13  |          | О         |                       | <u>.</u> | О         | О                      |
| B14. |          | О         |                       |          | ·O        |                        |
| B15  | <b>=</b> |           |                       | O        | ·O        |                        |
| B16  | О        | О         | О                     | `        | <b>=</b>  |                        |
| B17  | O        | О         |                       |          | O         |                        |
| B18  | О        | О         | pot 644               |          | O         |                        |

### B19 (Fill in the correct set of answers. 0.6 points per cell)

| Function code | Structure code (I ~ V) |
|---------------|------------------------|
| a.            | II                     |
| b.            | V                      |
| c.            | I                      |
| d.            | III                    |
| e.            | IV                     |

# B20 (Indicate the correct set of answers. 0.375 points for each correct matching)

|        | I | П | III | IV | V | VI | VII | VIII |
|--------|---|---|-----|----|---|----|-----|------|
| Letter | b | а | e   | h  | f | g  | d   | c    |
| Number | 7 | 4 | 3   | 1  | 5 | 8  | 6   | 2    |

B21 (Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. 0.6 points per cell)

| Α | ·B | С | D | E |
|---|----|---|---|---|
| 0 | О  | 0 |   | 0 |

#### B22 (Fill in the correct answers. 0.6 points per cell)

| Structure/hormone                | Answer |
|----------------------------------|--------|
| α cells of the pancreatic islets | b      |
| Insulin                          | c      |
| Liver                            | e      |
| Adrenal medulla                  | g      |
| Cortisol                         | h      |

#### B23 (Fill in the correct answers. 0.6 points per cell)

| Structure/hormone  | Answer |
|--------------------|--------|
| Sertoli cells      | e      |
| Anterior pituitary | b      |
| Gonadotropin       | a      |
| releasing hormone  |        |
| FSH                | c      |
| Inhibin            | g      |

B24 (Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. 0.5 points per cell)

| a | c        | d | е | f | h |
|---|----------|---|---|---|---|
|   | -pag pas |   |   |   | О |

| cT | т           | ENT    | CO     | DE |
|----|-------------|--------|--------|----|
| O. | $\cup \cup$ | TELET. | $\sim$ | レレ |

## B25 (Fill in the correct answer. 0.6 points per cell)

| Mechanism              | Figure number |
|------------------------|---------------|
| Blocking of step A     | I             |
| Facilitation of step B | IV            |
| Blocking of step C     | I             |
| Facilitation of step D | V             |
| Blocking of step E     | ·III          |

B26 (Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet

clearly. 0.6 points for each correct matching)

| Mechanism             | Answer |  |
|-----------------------|--------|--|
| Blocking of step A    |        |  |
| Enhancement of step B | О      |  |
| Blocking of step C    |        |  |
| Enhancement of step D | -      |  |
| Blocking of step E    | 0      |  |

| TTS | IDENT | CODE |
|-----|-------|------|

B27 (Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. 0.6 points per cell)

| Statement                                  | Answer   |
|--|----------|
| a. D remain the same distance apart        |          |
| b. A move closer to the ends of the B      | О        |
| c. C become shorter                        | 0        |
| d. B become wider                          |          |
| e. D lines move closer to the end of the B | 300 Juli |

B28 (Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. 0.6 points per cell)

| A | В           | С | D | E |
|---|-------------|---|---|---|
| O | <del></del> |   |   | О |

**B29 (3 points)** 

<u>6</u>:00

(Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. 0.6 points per cell)

| No. | А   | В | С   | D          | Е                      | F |
|-----|-----|---|-----|------------|------------------------|---|
| B30 | .== |   | ·== | О          | <b>6-4</b> 6 <b>-4</b> |   |
| B31 |     | О |     | О          | О                      |   |
| B32 | О   | O |     | <b>~</b> ~ | О                      |   |

(Fill in the correct answers. 0.75 points per cell)

| B33.1. | QqRr |
|--------|------|
| B33.2. | 192  |
| B33.3. | 0.6  |
| B33.4. | 8%   |

B34 (Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. 0.5 points per cell)

| А | В | С | D | E |
|---|---|---|---|---|
|   |   | 0 | O |   |

B35a-c. problem set. (Fill in the correct answers. 1 point per question, 3 points total)

B35a I+III

B35b A, D, E

B35c \_\_\_\_\_C

(Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. 0.6 points per cell)

| No. | А          | В       | С | D         | Е       |
|-----|------------|---------|---|-----------|---------|
| B36 | · real ser | О       | О |           | <b></b> |
| B37 |            | <b></b> | O | -lead (me |         |

B38 (3 points)

(Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. 0.6 points per cell)

| No. | A        | В      | С       | D       | Е         |
|-----|----------|--------|---------|---------|-----------|
| B39 |          | ent en | ,aa aa  | О       | ted evi   |
| B40 | Pi en    | O      | <b></b> | O       | О         |
| B41 |          | O      | <b></b> | О       | Park 244- |
| B42 | <b>,</b> |        | О       |         | О         |
| B43 | О        |        | О       | <b></b> | O         |

B44 (Indicate true (T) or false (F). 0.6 points for each correct matching)

| А | В | С            | D | Е            |
|---|---|--------------|---|--------------|
| F | T | $\mathbf{T}$ | F | $\mathbf{F}$ |

B45 (Indicate true (T) or false (F). 0.75 points for each correct matching)

| Α | В | С | D |  |
|---|---|---|---|--|
| Т | F | T | F |  |

B46.1 (Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. <u>0.25</u> points per cell)

| С | D | Е | F |
|---|---|---|---|
| О |   |   |   |

B46.2 (Fill in the correct answer. 1.5 points)

1/8

B47.1 (Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. <u>0.3</u> points per cell)

| А | В | С | D | Е |
|---|---|---|---|---|
| 0 |   |   |   |   |

B47.2 (Fill in the correct answer,  $\underline{1.5}$  points)

0.069

0K - 5 0,07

B48 (Fill in the correct answer. 3 points)

5/16

B49 (Fill in the correct answer. 3 points)

Chromosome 5

B50 (Mark the correct answers with" O" and incorrect answers with "--" on the Answer Sheet clearly. 0.5 points per cell)

| A | В       | С | D  | E |
|---|---------|---|----|---|
|   | one pin | O | == |   |