Endocrine System Lab
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PART 1
1. Label the endocrine glands in the following diagram.
2. Using contrasting colors, color the endocrine organs in the figure below.
3. Examine the interior of a skull and locate the sella turcica that protects the pituitary gland. This bony structure’s can be translated to mean ______________

PART 2
Set 71 - Endocrine System
Study the microscopic anatomy of different endocrine glands utilizing Viewmaster Set 71 The Endocrine System. Drawings optional.

1. Pancreas (xs)
   - P – exocrine tissue which produces digestive enzymes
   - Arrow ➔ points to islets which contain alpha and beta cells that produce endocrine products
     o Name these two endocrine products
     Note how the endocrine and exocrine tissue differ though the are adjacent to each other

2. Pancreatic islets (of Langerhans) (xs)
   - Note how the islets differ from surrounding exocrine tissue

3. SKIP

4. SKIP

5. Adrenal Gland (xs)
   - Note the different presentation of the adrenal medulla and cortex
     Neural tissue can be found in the ______________
     Glandular tissue can be found in the ______________
     The cortex is stimulated by ______________
     The medulla is stimulated by ______________

6. SKIP

7. Pituitary gland (ls)
   - Note the similarity in presentation of the medulla and cortex to that of the adrenal gland in slide 5
     Neural tissue can be found in the ______________
     Glandular tissue can be found in the ______________
     The anterior pituitary is stimulated by ______________
     The posterior pituitary is stimulated by ______________

8. SKIP

PART 3
Hormone Abbreviations

1. ACTH
2. ADH
3. FSH
4. hGH
5. LH
6. NE
7. PRL
8. PTH
9. TSH
PART 4
Main Endocrine Organs and their Hormones
Write the name of the endocrine gland that secretes the following hormones

<table>
<thead>
<tr>
<th>Hormone</th>
<th>Endocrine Gland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ACTH</td>
<td>________________</td>
</tr>
<tr>
<td>2. ADH</td>
<td>________________</td>
</tr>
<tr>
<td>3. androgens</td>
<td>________________</td>
</tr>
<tr>
<td>4. calcitonin</td>
<td>________________</td>
</tr>
<tr>
<td>5. cortisol</td>
<td>________________</td>
</tr>
<tr>
<td>6. epinephrine/NE</td>
<td>________________</td>
</tr>
<tr>
<td>7. estrogen/progesterone</td>
<td>________________</td>
</tr>
<tr>
<td>8. FSH</td>
<td>________________</td>
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<tr>
<td>9. glucagon</td>
<td>________________</td>
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<tr>
<td>10. hGH</td>
<td>________________</td>
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<tr>
<td>11. insulin</td>
<td>________________</td>
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<tr>
<td>12. LH</td>
<td>________________</td>
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<tr>
<td>13. melatonin</td>
<td>________________</td>
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<tr>
<td>14. oxytocin</td>
<td>________________</td>
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<tr>
<td>15. prolactin</td>
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<tr>
<td>16. PTH</td>
<td>________________</td>
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<tr>
<td>17. TSH</td>
<td>________________</td>
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<tr>
<td>18. melanocyte stimulating h</td>
<td>________________</td>
</tr>
</tbody>
</table>

PART 5
Hormone Function
1. decreases blood glucose levels by transporting glucose into body cells ________
2. stimulates oocyte production and estrogen secretion __________
3. decreases blood calcium levels by inhibiting osteoclasts __________
4. darkens skin pigmentation __________
5. increases resistance to stress, increases blood glucose levels and decreases inflammation __________
6. stimulates production of milk __________
7. promotes the fight-or-flight response __________ & __________
8. triggers ovulation and stimulates secretion of estrogen/progesterone __________
9. increases metabolism and basal metabolic rate __________
10. increases sex drive in females __________
11. decreases water loss by increasing reabsorption of water into blood and decreasing urine production __________
12. stimulates secretion of hormones by the adrenal cortex __________
13. stimulates uterine contractions and milk release during suckling __________
14. increases blood glucose levels by stimulating the liver to break down glycogen into glucose __________
15. stimulates the secretion of testosterone __________
16. stimulates sperm production __________