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**B. Sc. (Zoology) Semester - IV**  
**Paper – II**  
**(Molecular Biology and Immunology)**

**Unit -1**

DNA structure and organization

[https://youtu.be/S6LXyzZn5LS?si=na9\\_jzbE9tMuXHEX](https://youtu.be/S6LXyzZn5LS?si=na9_jzbE9tMuXHEX)

[https://youtu.be/n\\_4V5zn56BY?si=4ABQetISdcdp8HpX](https://youtu.be/n_4V5zn56BY?si=4ABQetISdcdp8HpX)

common features of DNA replication

<https://www.youtube.com/live/hR9IpioKkGE?si=uY1TcUhFjyZVsaYR>

Structure and Types of RNA

[https://youtu.be/Rcbx5znKo\\_8?si=rj1GzMh-hD4rVNnH](https://youtu.be/Rcbx5znKo_8?si=rj1GzMh-hD4rVNnH)

<https://youtu.be/WCrlm18KQ48?si=hIdA2-hfUMEJ4XPI>

<https://youtu.be/JVgGg7Gj3jo?si=V7Ch7I4Fz1feSfxs>

gene structure in prokaryotes and eukaryotes

<https://www.youtube.com/live/kfuqxU17Jrs?si=t3eBHMYfp2h6AcJ->

[https://youtu.be/bUebj444ulk?si=OSGZUJ7XzK\\_aDQmH](https://youtu.be/bUebj444ulk?si=OSGZUJ7XzK_aDQmH)

Bacterial transformation and gene map

[https://youtu.be/bUebj444ulk?si=OSGZUJ7XzK\\_aDQmH](https://youtu.be/bUebj444ulk?si=OSGZUJ7XzK_aDQmH)

Griffith experiment

[https://youtu.be/0yBD0xKbcVU?si=nkHrB9h-2A0iJJw\\_](https://youtu.be/0yBD0xKbcVU?si=nkHrB9h-2A0iJJw_)

Bacterial conjugation in bacteria

<https://youtu.be/vjCnzjrNkuE?si=-tRHG42yihMNIqyq>

<https://youtu.be/ysGU7rsjNeI?si=h98bfYKDSY4-lGID>

Transduction in Bacteria

[https://youtu.be/VKEX-VrrhQ8?si=-gJd0SK\\_wlr0V5eo](https://youtu.be/VKEX-VrrhQ8?si=-gJd0SK_wlr0V5eo)

<https://youtu.be/VKEX-VrrhQ8?si=ctNQkRVs0jEfhvsE>

**Unit -2**

Protein synthesis

<https://youtu.be/gG7uCskUOrA?si=buTTFsEjliVazXWE>

DNA Replication

<https://youtu.be/dKubyIRiN84?si=BOtH1ZcaeToyczRT>

DNA Replication

[https://youtu.be/9kp9wiYMQUU?si=q\\_loWfNP\\_ZfLYdet](https://youtu.be/9kp9wiYMQUU?si=q_loWfNP_ZfLYdet)

Models of DNA replication

<https://youtu.be/1rAPSWyiQSw?si=3EFPNmFbikOybRZ9>

Transcription and translation

[https://youtu.be/bKIpdDtJdK8Q?si=QqnPMqvX\\_YMc0kQb3](https://youtu.be/bKIpdDtJdK8Q?si=QqnPMqvX_YMc0kQb3)

**Unit- 3**

Immunity Innate and Acquired

<https://youtu.be/gPb7Uw3kDt0?si=luDytlTQiRJWhilQ>

<https://youtu.be/Te1EwOFWJBo?si=SZhmdPSZrmN2O3wq>



Organs of immune system

<https://youtu.be/OIW74k0P7qw?si=xjKXusj6NJs9AVBV>

Antigens and its type

<https://youtu.be/8TIADgNnL8s?si=9T9jg46ln7ebX1fd>

Antigen antibody reaction

<https://youtu.be/oynjZ9IVSzU?si=FrIe54RKVzGIg7hE>

[https://youtu.be/nNR\\_DmoBQ9E?si=F4XjCf9dfLuF-HZq](https://youtu.be/nNR_DmoBQ9E?si=F4XjCf9dfLuF-HZq)

#### **Unit -4**

Types of immune response

<https://www.youtube.com/watch?v=k9QAYP3bYmc&pp=ygUYVHlwZXMGb2YgaW1tdW5lIHJlc3BvbnNl>

Complement system

<https://www.youtube.com/watch?v=d6qFPegEYV0&pp=ygUSQ29tcGxlbWVudCBzeXN0ZW06>

[https://www.youtube.com/watch?v=2-](https://www.youtube.com/watch?v=2-57bqFSJ1E&pp=ygUSQ29tcGxlbWVudCBzeXN0ZW06)

[57bqFSJ1E&pp=ygUSQ29tcGxlbWVudCBzeXN0ZW06](https://www.youtube.com/watch?v=2-57bqFSJ1E&pp=ygUSQ29tcGxlbWVudCBzeXN0ZW06)

Cytokines-

<https://www.youtube.com/watch?v=ImgxOw91wc8&pp=ygUKQ3l0b2tpbmVzLQ%3D%3D>

<https://www.youtube.com/watch?v=pJcYGcQPssA&pp=ygUKQ3l0b2tpbmVzLQ%3D%3D>

Autoimmunity and immunodeficiencies

[https://www.youtube.com/watch?v=mRF-](https://www.youtube.com/watch?v=mRF-61n7xpE&pp=ygUjQXV0b2ltbXVuaXR5IGFuZCBpbW11bm9kZWZpY2llbmNpZXM%3D)

[61n7xpE&pp=ygUjQXV0b2ltbXVuaXR5IGFuZCBpbW11bm9kZWZpY2llbmNpZXM%3D](https://www.youtube.com/watch?v=mRF-61n7xpE&pp=ygUjQXV0b2ltbXVuaXR5IGFuZCBpbW11bm9kZWZpY2llbmNpZXM%3D)