

NAME :- FAIZ ULHAQ.

ID# 16036.

PAPER :- MICROBIOLOGY.

INSTRUCTOR:: FAZIL ZAHIR.

QNO 1:-

(1) ----PROBIOTICS.

2)----- SYNBIOTIC.

3) ----BACTERIOSTATIC.

4) -----NORMAL FLORA.

5) -----COMMENSALISIM.

6) -----CONJUGATION.

7) -----PLASMID.

8) ----NORMAL MICROBIAL FLORA.

9) -----TRANSCRIPTION.
AND TRANSLATION.

-----*****-----*****---

QNO 2 :--

ANS :-- NORMAL FLORA:-

ARE THE MICROORGANISM THAT LIVE ON ANOTHER LIVING ORGANISM(HUMAN OR ANIMALS) OR INANIMATE OBJECTS WITHOUT CAUSING DISEASES..

THIS NORMAL FLORA HELPS TO PREVENT US BECOMING COLONISED WITH MORE DANGEROUS BACTERIA, WHICH MIGHT TO INFECTION.

ADVANTAGES ::--

THE NORMAL FLORA PREVENT COLONIZATION BY PATHOGENS BY CI
COMPETING FOR ATTACHMENT SITES OR FOR ESSENTIAL NUTRIENTS . THIS IS
THOUGHT TO BE THEIR MOST IMPORTANT BENEFICIAL EFFECT, WHICH HAS
BEEN DEMOSTRATED IN THE ORAL CAVITY, THE INTESTINE, THE SKIN, AND THE
VAGINAL EPITHELIUM.

DISADVANTAGES :--

THEY CAN CAUSE DISEASE IN THE FOLLOWING:

- * WHEN INDIVIDUALS BECOMES IMMUNNO COMPROMISED .
- * WHEN THEY CHANGE THEIR USUAL ANATOMIC LOCATION.
- * COST OF PRODUCTION, STORAGE AND DELIVERY AND THE RISK
OFCONTAMINATION.
- * REQUIRES DETAILED KNOWLEDGE OF THE MICRO-ORGANISM'S
PATHOGENESIS, PROTECTIVE EPITOPES AND EFFECTIVE IMMUNE RESPONSE.

-----*****-----*****-----*****

QNO 3:---

ANS :-- STAGES OF PATHOGENESIS :--

STAGE I:--

- * BACTERIA ARE PHAGOCYTOSED BY ALVEOLAR MACROPHAGES.
- * THEY MAY GETS DISTROYED ARE GROW.
- *) WHEN THEY GROW, THEY DESTROY THE MACROPHAG, FORM INITIAL NIDUS
OF DEVELPING TUBERCLE.

STAGE II :--

- * CIRCULATING MONOCYTES ARE RECRUITES AT NIDUS.
- * WHERE THEY ARE PHAGOCYTIZED BUT NOT DESTROYED.

STAGE III:--

- * DELAYED TYPE OF HYPERSENSIVITY : DESTROYS THE BACTERIA
LADENMACROPHAGES.

* LEADS TO TISSUE DAMAGE CAUSING CASEOUS NECROSIS.

STAGE IV:--

* IF DELAYED TYPE OF HYPERSENSITIVITY RESPONSE IS POOR.

* IT MAY BREAK OPEN INTO LYMPHATIC AND BLOOD VESSELS.

1) STAGE OF INFILTRATION.

2) STAGE OF ACTIVE ULCERATION.

3) STAGE OF REGRESSION.

4) STAGE OF CICATRIZATION.

-----*****-----*****-----

QNO 4:--

ANS :- TRANSFER OF GENE FROM BACTERIUM:--

IN BACTERIA OR OTHER ORGANISM , GENE TRANSFER MAINLY TWO WAYS:-

1) VERTICAL GENE.

2) HORIZONTAL GENE TRANSFER.

METHODS OF GENE TRANSFER:-

BACTERIA CAN ACQUIRED DNA (I .E NEW GENES) IN 3 BASIC WAYS :-

1) TRANSFORMATION:--

* UPTAKE AND RETENTION OF EXTERNAL DNA MOLECULES.

* HOMOLOGOUS RECOMBINATION CAN THEN OCCUR.

2) CONJUGATION:--

DIRECT TRANSFER OF DNA FROM ONE BACTERIUM TO ANOTHER.

3) THE TRANSFER OF DNA BETWEEN BACTERIA BY A VIRUS.

*A VIRUS (PHAGE) PARTICLE CAN TRANSFER DNA PRAGMENT FROM ONE HOST CELL TO ANOTHER FOLLOWED RECOMBINATION.

* REQUIRE A VIRUS TO BE PACKAGED WITH BACTERIAL DNA BY MISTAKE.

-----***-----*****-----*****

QNO5 :---

1) SYMBIOTIC RELATIONSHIP:-

ANIMAL RELAY ON EACH OTHER TO SOME HAVE LIFELONG RELATIONSHIP WITH OTHER ORGANISM IS CALLED SYMBIOTIC RELATIONSHIP.

THERE ARE THREE DIFFERENT TYPE OF SYMBIOTIC RELATIONSHIP:

- * MUTUALISM.
- * COMMENSALISM.
- * PARASITISM.

2) ANTIMICRIBIAL DRUG :--

A DRUG USED TO TREAT MICROBIAL INFECTION " ANTIMICROBIAL " IS A GENERAL

TERM THAT REFAIR TO A GRUOP OF DRUGS THAT INCLUDES ANTI BIOTIC , ANTI FUNGALS, ANTI PROTIZOLS AND ANTI VIRUS.

3)

ANTI MICROBIAL RESISTANCE : -

ANTI MICROBIAL RESISTANCE IS THE ABILITY OF MICROBES TO RESIST THE EFFECTS OF DRUGS IN SAM DOSAGE. WHEN THE DRUG LOOSE THE ABILITY TO EITHER KILL OR INHIBIT THE GROWTH OF MICROBES AND THE MICROBES GAIN THE ABILITY TO SURVIVE IN THE PRESENCE OF DRUGS TO WHICH PREVIOUSLY SUSCEPTIBLE THIS IS CALLED RESISTANCE.

4) PROBIOTIC :- ARE OFTEN CALLED" GOOD"OR "HELPFUL" BACTERIA BECAUSE THEY HELP KEEP YOUR GUT HEALTHY.

- PROBIOTIC ARE LIVE BACTERIA AND YEAST THAT ARE GOOD FOR AND HAVE BENIFICIAL EFFECT IN THE HOST BY IMPROVING ITS INTESTINAL MICROBIAL BALANCE.

Prebiotics:-

