## Molecular: chromosomes

1 – All the following true about DNA except:

- A Form from many nucleotides strung together
- B DNA + protein = chromosomes
- C DNA is warped around histone core in eukaryotes
- D T and A bind by 3 hydrogen bonds

Answer: D

2 – Choose the correct option about human cells:

- A Have 22 pairs of chromosomes
- B The sex chromosomes in male are XX
- C The normal number of sex chromosomes is 4
- D Human has 44 outosomes and 2 sex hormones

Answer: D

3 – Choose the false matching:

A – Prokaryotes .....single chromosome + plasmid

- B Eukaryotes .....DNA found in cytoplasm
- C Telomeres ...... center of chromosome

D – B+C

Answer: A

4 – Choose the right option:

A – Monosomics (2n + 1) B – Nullisomics (2n-2) C – Trisomics (2n-1)

D – C+B

ANSWER: B

5 – The normal gametes contain of:

A – 2 sets of chromosomes

B – Don't contain any chromosomes

C – 1 set of chromosomes

D-3 sets of chromosomes

Answer: c

6 – The number and appearance of chromosomes in the nucleus of eukaryotic cells. Is

definition of?

- A Euploidy
- B Monosomic
- C Karyotypes
- D Aneuploidy

Answer: c

7 - \*\*\*\* in which phase we can study the chromosomes as well as we can?

- A Anaphase
- B Metaphase
- C Prophase
- D Telophase

Answer: B

- 8 All the following false except:
- A In karyotype the chromosomes arranged from the smaller to largest
- B Female chromosomes formula = 44/XX
- C In deletion disordered the chromosome became taller
- D Deficiency in short arm of chromosome 5 cause klinflter syndrome

9-\*\*\*\*\* What is the percentage of abnormal individuals of nondisjunction in meiosis II?

A – 100 % B – 50 % C – 75 %

ANSWER: B

10 – About structural chromosomal aberration choose the right one

A – Chromosome might breakage because of x-rays

B - \*\* in translocation: parts of 2 homologous chromosomes are joined

C - the paracentric inversion are much less than pericentric

D – They all right

Answer: A

## Syndromes and disordered

1 – All this syndromes happened because of increase in the number of chromosomes except:

- A Down syndrome
- B Patau syndrome
- C Edwards syndrome
- D Turner syndrome

Answer: D

2 – \*\*\*\*\* A characteristics of syndrome infect males which there is at least 1 extra X chromosome:

A – Hearing impairment B – Small testes C – Cleft lip D – A+C

ANSWER: B

3 - \*\*\*\*\* the number of outosomes in a turner infected female

A - 45 B - 44 C - 1 D - 46

Answer: B. The number of outosomes will not change .but the sex chromosomes number will.

4 – The syndrome which happen because of extra genetic material on chromosome 13

- A Patau
- B Edward
- C Down
- D None of the above

Answer: A

5 – The syndrome which the risk of contracting increase with age: \*\*\*\*

A – Down B – Edwars C – Patau D – turner

Answer: A