The H. N. S. B. Ltd. Science College, Himatnagar

Internal Examination September/October - 2016

B.Sc. Sem-5   Subject: MICROBIOLOGY   Date: 29/9/2016

Marks: 40   Paper Code: CC- MI -503 CLASSICAL GENETICS   Time: 1½ hr

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Part –A   Answer any Five of following.   [05]

Q.1)   Chromosome map is also called as ....

   a) Recombination map   b) Linkage map

   c) Genetic map   d) b & c both

Q.2)   10 map units equal to ....% recombination

   a) 1   b) 0.1

   c) 0.01   d) 10

Q. 3) What ....is correct order at cell cycle event.

   a) G2 → S → G1 → M   b) G1 → S → G2 → M

   c) S → G1 → G2 → M   d) M → G1 → G2 → S

Q. 4) Who give the theory of X-linked inheritance.

   a) Gregor Mendal   b) Robine holiday

   c) Thomas Hunt Morgan   d) Thomas Brno

Q. 5) If sequence on the one strand of DNA is 5´ ACCGTAC 3´ then

   Complementary strand would be ....

   a) 5´ TGGGATG 3´   b) 5´ TGGGTAG 3´

   c) 5´ TGGCATG 3´   d) 5´ TGGCTAC 3´

Q. 6) Human being contain .... pair chromosome number

   a) 23   b) 22

   c) 21   d) 46

Part-B   Answer any Five of following.   [05]

Q.7 What is the meaning of check point in cell cycle?

Q.8 Define: cytokinesis.

Q.9 Give the example of human traits.

Q.10 Define: coupling.

Q.11 Equation of map distance.

Q.12 Define chromosome.

Q.13 What is trait?

PART-C   **Answer any Three of following.**   [06]

Q.14 Give full form of **DNA, RNA** and **SxL**.

Q.15 Enlist the observable seven character of pea plant?

Q.16 What is test cross?

Q.17 What is the meaning of gene marker?

Q.18 Explain: Heterogametic and Homogametic.

PART-D   **Answer any Four of following.**   [12]

Q.19 Give short note on genetic linkage.

Q.20 Explain nature of genetic material.

Q.21 Short note on the stability of chromosome complement.

Q.22 Short note on crossing over.

Q.23 Chromosome interference in double crossing over.

Q.24 Explain probability of Mendal.

PART-E   **Answer any Two of following.**   [12]

Q.25 Gene mapping from three-point test crosses.

Q.26 The principle of independent assortment.

Q.27 Determination of X-linked inheritance.

Q.28 Short not on "fields of genetic".

-: **Best of Luck** :-