

NEET MOLECULAR BASIS OF INHERITANCE — THE SEARCH FOR GENETIC MATERIAL (GRIFFITH, AVERY–MACLEOD–MCCARTY, HERSHEY–CHASE) — PYQS

Max. Marks: 32

Questions: 8

Section A (MCQ) — 8 questions

Q.1 Match List-I with List-II

List - I	
A.	Alfred Hershey and Martha Chase
B.	Euchromatin
C.	Frederick Griffith
D.	Heterochromatin

List - II	
I.	<i>Streptococcus pneumoniae</i>
II.	Densely packed and dark-stained
III.	Loosely packed and light-stained
IV.	DNA as genetic material confirmation

Choose the correct answer from the options given below: [NEET (UG) 2025]

- (1) A-IV, B-III, C-I, D-II (2) A-III, B-II, C-IV, D-I
(3) A-II, B-IV, C-I, D-III (4) A-IV, B-II, C-I, D-III

Scan or tap for the full solution 

Q.2 Match List I with List II

List-I		List-II	
A.	Frederick Griffith	I.	Genetic code
B.	Francois Jacob & Jacques Monod	II.	Semi-conservative mode of DNA replication
C.	Har Gobind Khorana	III.	Transformation
D.	Meselson & Stahl	IV.	Lac operon

Choose the correct answer from the options given below: [NEET (UG) 2024]

- (1) A-III, B-II, C-I, D-IV (2) A-III, B-IV, C-I, D-II
(3) A-II, B-III, C-IV, D-I (4) A-IV, B-II, C-II, D-III

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Q.3 Unequivocal proof that DNA is the genetic material was first proposed by [NEET (UG) 2023]

- (1) Alfred Hershey and Martha Chase
(2) Avery, MacLeod and McCarty
(3) Wilkins and Franklin
(4) Frederick Griffith

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Q.4 If DNA contained sulfur instead of phosphorus and proteins contained phosphorus instead of sulfur, what would have been the outcome of Hershey and Chase experiment? [NEET (UG) 2022 (Phase 2)]

- (1) Radioactive phosphorus in bacterial cells
(2) No radioactive sulfur in bacterial cells
(3) Both radioactive sulfur and phosphorus in bacterial cells
(4) Radioactive sulfur in bacterial cells

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Q.5 The final proof for DNA as the genetic material came from the experiments of [NEET 2017]

- (1) Griffith
(2) Hargobind Khorana
(3) Avery, MacLeod and McCarty
(4) Hershey and Chase

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Q.6 Transformation was discovered by : [AIPMT 2014]

- (1) Griffith (2) Watson and Crick
(3) Hershey and Chase (4) Meselson and Stahl

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Q.7 The unequivocal proof of DNA as the genetic material came from the studies on a: [AIPMT 2011 (Mains)]

- (1) Viroid (2) Bacterium
(3) Fungus (4) Bacterial virus

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Q.8 Transformation experiment was first performed on which bacterium : - [AIPMT 2002]

- (1) *Diplococcus pneumoniae*
- (2) *Pasteurella pestis*
- (3) *E. coli*
- (4) *Salmonella*

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full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7	8			
Ans.	1	2	1	4	4	1	4	1			