

PYQSide

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)

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

Scan or tap for the full solution 

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

Scan or tap for the full solution 

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

Scan or tap for the full solution 

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

Scan or tap for the full solution 

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

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

Scan or tap for the full solution 

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

Scan or tap for the full solution 

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

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

Scan or tap for the
full solution



ANSWER KEY

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