IMPORTANT PRACTICE QUESTION SERIES FOR NEET EXAM – 1

SECTION - A : NUCLEIC ACIDS
(THE SEARCH FOR GENETIC MATERIAL, DNA, RNA)

1. To prove that DNA is the genetic material, Griffith used

(1) Neurospora crassa (2) Drosophila melanogaster

(3) Diplococcus pneumoniae (4) Escherichia coli

2. Who experimently proved that DNA is the basic genetic material?

(1) J. D Watson (2) H.G. Khorana (3) Alfred Griffith (4) Hershey & Chase

3. Radioactive (^{35}S) was detected in?

(1) Supernatant (2) Sediment (3) Both 1 and 2 (4) None of these

4. DNA was first discovered by

(1) Beadle and Tatum (2) Watson and Crick (3) Friedrich Miescher (4) A. Kornberg

5. With respect to the bacteriophage, choose the correct sequence of Harshey-Chase experiment.

(1) (a) Blending, (b) Infection, (c) Centrifugation

(2) (a) Infection, (b) Centrifugation, (c) Blending

(3) (a) Infection, (b) Blending, (c) Centrifugation

(4) (a) Centrifugation, (b) Blending, (c) Infection

6. A nucleoside is

(1) purine / pyrimidine + phosphate (2) purine / pyrimidine + sugar

(3) pyrimidine + purine + phosphate (4) Purine + sugar + phosphate

7. A DNA molecule makes complete turn after every

(1) 3.4 Å (2) 20Å (3) 10 bases (4) 12 bases

8. The two stands of DNA are

(1) Similar in nature and complementary (2) Antiparallel and complementary

(3) Always single stranded (4) Rarely double stranded

9. The similarity between DNA & RNA is that both

(1) are double stranded (2) have simillar sugars

(3) are polymers (4) have similar pyrimidines

10. In which of the following, double stranded RNA is present?

(1) bacteria (2) x 174 (3) retrovirus (4) reovirus

11. Why does cytosine make pair with guanine and not with adenine?

(1) Polar nature of C and A

(2) C - A pair would not reach across the double helix

(3) C - A pair would be wider than double helix

(4) Hydrogen bond forming functional groups are not complementary between C and A

12. Regarding to features of double helix structure of DNA which of the following is wrong

(1) Two polynucleotide chains have antiparallel polarity

(2) The bases in two strands are paired through phosphodiester bonds

(3) Adenine form two hydrogen bonds with thymine

(4) The pitch of the helix is 3.4 nm

13. In the experiments on the chemistry of DNA Chargaff estimated the base composition of human sperms and found that adenine constituted 31% and guanine 19%. The quantity of cytosine in DNA of a human somatic cell is likely to be

(1) 19% (2) 38% (3) 31% (4) 62%

14. In a given sample of nucleic acid G + A content is not equal to C + T. This indicates that sample is

(1) GC rich (2) AT rich

(3) single-stranded DNA (4) double-stranded DNA

15. Nucleic acid was artificially synthesized in vitro by–

(1) Ochoa and Kornberg (2) Nirnberg and Ochoa

(3) Nirenberg and Ochoa (4) Kornberg and Nirenberg

16. The haploid content of human DNA is

(1) $3{\cdot}3 \times 10^9$ bp (2) $3{\cdot}3 \times 10^9$ kbp (3) $4{\cdot}6 \times 10^6$ bp (4) 48502 bp

17. Histone proteins are rich in

(1) Tryptophan, Lysine (2) Arginine, Lysine (3) Histidine, Arginine (4) Histidine, Tryptophan

18. Bacterial DNA is associated with

(1) Few polyamines or basic proteins (2) Histone proteins

(3) No proteins (4) Non histone acidic proteins

19. Which was first genetic material?

(1) RNA (2) DNA (3) Protein (4) Both (1) and (2)

20. Which RNA occurs abundantly in a cell?

(1) r RNA (2) t RNA (4) m RNA (3) Primer RNA

21. The length of DNA molecule greatly exceeds the dimensions of the nucleus in the eukaryotic cells. How is this DNA accommodated?

(1) Super coiling in nucleosomes (2) DNase digestion

(3) Through elimination of repetitive DNA (4) Deletion of non-essential genes

22. Which of the following is/are wrong regarding double helical structure of DNA

(a) DNA is made up of two polynucleotide chains

(b) Backbone of DNA is constituted by sugar & Nitrogenous base

(c) The two chain have anti parallel polarity

(d) The pitch of the helix is 3.4 A^o

(1) b & c (2) a & d (3) b only (4) b & d

23. Which of the following is not a criteria for determination of genetic material

(1) Ability of replication

(2) Chemically and structurally stable

(3) It should be non mutable

(4) Ability to expres itself in form of Mendelian characters

24. Choose the incorrect one:

(1) Nucleosomes in chromatin are seen as "beads on string structure"

(2) Nucleosome in a histone octamer

(3) Nucleosome is present in both prokaryotic & eukaryotic DNA

(4) A typical nucleosome contains 200 bp. of DNA helix

25. Number of Nucleosomes found in helical coil of 30 nm chromatin fibre is

(1) 6 (2) 10 (3) 12 (4) 15

26. Which is incorrect regarding nucleosome?

(a) A typical nucleosome contain 200 bp of DNA helix

(b) Histone are rich in the basic amino acid residue lysines & arginines

(c) The packaging of chromatin at higher level require additional set of proteins that collectively are referred to as Non-histone chromosomal (NHC) protein

(1) a only (2) a & c both (3) c only (4) None

27. Which is incorrect for t-RNA

(1) t-RNA has an anticodon loop that has bases complementary to the codon of m-RNA
(2) t-RNA are specific for each amino acid
(3) Three t-RNA are present for stop codon
(4) In actual structure, the t-RNA is a compact molecule which looks like inverted L.

28. Heat killed pathogenic bacterial cells and live nonpathogenic cells are mixed and injected into mice. The result would be
(1) Mice develop disease and die
(2) Mice die without developing disease
(3) Mice remain healthy
(4) 50% mice develop disease and die
(5) All mice remain healthy but lose vision.

29. Chargaff's rules are applicable to
(1) Single stranded RNA
(2) Single stranded DNA and RNA
(3) Single stranded DNA
(4) Double stranded DNA.

SECTION - B
DNA REPLICATION, TRANSCRIPTION, GENETIC CODE AND TRANSLATION

1. The experimental system used in the studies on the discovery of replication of DNA has been
(1) *Drosophila melanogaster*
(2) *Pneumococcus*
(3) *Escherichia coli*
(4) *Neurospora crassa*

2. DNA replication is
(1) Semiconservative and semi discontinous
(2) Semiconservative and discontinous
(3) Conservative
(4) Conservative and discontinous

3. DNA replication is aided by
(1) DNA polymerase only
(2) DNA ligase only
(3) Both DNA polymerase and ligase
(4) RNA polymerase

4. A DNA strand on which new strand is produced is called
(1) complementary
(2) template
(3) primer
(4) elongating

5. In DNA replication, primer strand is formed by
(1) A small piece of deoxyribonucleotide polymer
(2) A small piece of ribonucleotide polymer
(3) Deoxyribonucleotides + pyrophosphates
(4) DNA replicase + nucleotide + ATP

6. The enzyme which catalyses the formation of RNA from DNA template is known as
(1) Reverse transcriptase
(2) RNA polymerase
(3) DNA polymerase
(4) Nucleases

7. Ligase - an ezyme is used for
(1) joining bits of DNA
(2) splitting DNA thread into small bits
(3) denaturation
(4) none of the above

8. The protein which helps to unwind DNA double helix during replication is
(1) DNA polymerase (2) DNA gyrase (3) helicase (4) DNA topoisomerase

9. Small fragments of DNA synthesized during replication of DNA are called

(1) Nucleotides (2) Genes
(3) Okazaki fragements (4) Single stranded DNA

10. The strand of DNA which is synthesized continuously during replication is called
(1) leading strand (2) lagging strand (3) sense strand (4) antisense strand

11. DNA polymerase enzyme was discovered by
(1) Kornberg (2) Nirenberg (3) Khorana (4) Ochoa

12. The first codon discovered by Nirenberg and Mathaei was
(1) GGG (2) CCC (3) UUU (4) AAA

13. A codon is said to be degenerate because
(1) It degenerates soon after coding
(2) more than one amino acid can be coded by a single codon
(3) the same amino acid can have many codons
(4) all the above

14. Which of the following serves as a termination codon?
(1) AUG (2) CGC (3) UAG (4) GUG

15. In the genetic code dictionary, how many codons are used to code for all the 20 essential amino acids?
(1) 20 (2) 64 (3) 61 (4) 60

16. There are 64 codons in genetic code dictionary because
(1) There are 64 types of tRNA found in the cell
(2) There are 44 meaningless and 20 codons for amino acids
(3) There are 64 amino acids to be coded
(4) Genetic code is triplet

17. The DNA chain acting as template for mRNA synthesis has the following order of bases AGCTTCGA. What will be the order of bases in mRNA?
(1) TCGT AAGCT (2) UCTG AAG CU (3) UCG UAG CT (4) UCG AAG CU

18. Which of the following is Pribnow box?
(1) 5' AATAAT3' (2) 5' ATATTA3' (3) 5' TATAAT3' (4) 5TAATTA3'

19. During elongation occuring in translation, the enzyme which catalyses the synthesis of peptide bond is
(1) Peptidyl transferase (2) Peptidyl synthetase
(3) Protease (4) Amino acyl synthetase

20. Identify the characteristic which is not applicable to the genetic code
(1) Non-Polar (2) Non-overlapping (3) Commaless (4) Universal

21. In DNA replication, the role of RNA primer is to–
(1) Activate the DNA template
(2) Synthesize DNA nucleotides for the formation of new strand
(3) Initiate the formation of new strand on the template
(4) Perform all these functions

22. At the end of the process of DNA replication the newly formed lagging strand is also continuous due to the

(1) Okazaki fragements (2) Semiconservative method of replication
(3) DNA ligases (4) Double-stranded nature of DNA

23. Find out the correct matching

a	Helicase	i.	Joining of nucleotides
b	Gyrase	ii.	Opening of DNA
c	Primase	iii	Unwinding of DNA
d	DNA polymerase III	iv.	RNA priming

(1) a – ii, b – iii, c – iv, d – i (2) a – i, b – ii, c – iii, d – iv
(3) a – iv, b – iii, c – i, d – ii (4) a – ii, b – iv, c – iii, d – i

24. Transcriptionally active chromatin is called as ___(a)___and transcriptionally inactive chromatin is called as ____(b)_____. One strand of DNA, replication is continuous & it is called as ____(c)_____while on another strand of DNA replication is discontinuous & it is called as _____(d)_____ . Here (a), (b), (c) & (d) respectively:
(1) (a) Heterochromatin, (b) Euchromatin, (c) Lagging strand, (d) Leading strand
(2) (a) Euchromatin, (b) Heterochromatin, (c) Leading strand, (d) Lagging strand
(3) (a) Heterochromatin, (b) Euchromatin, (c) Leading strand, (d) Continuous strand
(4) (a) Euchromatin, (b) Heterochromatin, (c) Discontinuous strand, (d) Leading strand

25. Termination of the translation process occurs at the
(1) 5’ end of the DNA template (2) 3’ end of the mRNA
(3) 3’ end of t-RNA (4) 5’ end of mRNA

26. The amino acid valine is recognised by the triplets GUU, GUC, GUA and GUG and this character of the code is referred to as
(1) Degeneracy (2) Universality (3) Non-ambiguity (4) Commalessness

27. The wobble concept was proposed by
(1) Watson and Crick (2) Nirenberg and Lederberg
(3) Nirenberg and Matthaei (4) Crick

28. The m-RNA, AUGCAGGAUCGU recognises four amino acid and this character of the code referred to as
(1) Degeneracy (2) Universality (3) Non-amibiguity (4) Commalessness

29. Sigma factor is component of
(1) RNA polymerase (2) Dissociation factor (3) DNA ligase (4) DNA polymerase

30. After reaching into cytoplasm the m-RNA attaches itself to
(1) 40S particle (2) ER (3) 70 ribosomes (4) 60S particle

31. Functional unit of gene that specifies synthesis of one polypeptides is
(1) Recon (2) Cistron (3) Codon (4) Muton

32. Starting and stopping codons are
(1) AUG and UGA (2) GUA and AAA (3) UCA and UAA (4) GUC and AUG

33. The amino acids with a single code are
(1) Phenylalanine and glycine (2) Methionine and Tryptophan
(3) Glutamic acid and Arginine (4) Proline and Glycine

34. Given below sequence of the processed m–RNA ready for translation:
5'AUG CUA UACCUCCUUUAUCUGUGA–3' How many different t–RNA molecule require to translate this m–RNA–
(1) 8 (2) 7 (3) 6 (4) 5

35. Which of the following is exclusive property of transcription found in RNA-polymerase
(1) Initiation (2) Elongation (3) Termination (4) Processing

36. Which of the following mutation forms the genetic basis of proof that codon is a triplet and it is read in a contiguous manner
(1) Chromosomal structural mutations (2) Chromosomal numerical mutations
(3) Substitutional mutation (4) Frame shift insertion or deletion mutation

37. What is wrong about transcription?
(1) RNA polymerase is associated with initiation factor & termination factor
(2) There is only one RNA polymerase is present in eukaryotes.
(3) In eukaryotes, hn-RNA undergoes additional processing called as capping & tailing.
(4) Transcription is monocistronic in eukaryotes & polycistronic in prokaryotes.

38. Read the following statements.
(a) During protein synthesis formation of a peptide bonds do not require energy
(b) The UTRS are present at both 5' and at 3' end.
(c) The structural gene in a transcription unit could be said as monocstronic mostly in eucaryotes.
How many of above statement are correct.
(1) One (2) Two (3) Three (4) All are correct

39. Enzyme required for peptide formation is
(1) Peptidase (2) Peptidyl transferase (3) Protease (4) Nitrate reductase

40. cDNA is formed by
(1) DNA dependent DNA polymerase (2) RNA dependent DNA polymerase
(3) DNA dependent RNA polymerase (4) DNA ligase

41. Mode of DNA replication in Escherichia coli is
(1) Conservative and unidirectional (2) Semiconservative and unidirectional
(3) Conservative and bidirectional (4) Semiconservative and bidirectional.

42. Match the columns

Column I	**Column II**
a. Termination	1. Aminoacyl tRNA synthetase
b. Translation	2. Okazaki fragments
c. Transcription	3. GTP dependent release factor
d. DNA replication	4. RNA polymerase

(1) a – 2, b – 3, c – 1, d – 4 (2) a – 1, b – 4, c – 2, d – 3
(3) a – 3, b – 1, c – 4, d – 2 (4) a – 2, b – 4, c – 1, d – 3
(5) a – 2, b – 4, c – 1, d – 3.

43. In Rous sarcoma virus, the flow of information is
(1) DNA → RNA → Proteins (2) DNA → Proteins → RNA

(3) RNA → DNA → RNA → proteins (4) RNA → DNA → proteins

44. While working on Neurospora crassa Beadle and Tatum proved

(1) Every gene is responsible for a specific enzyme

(2) Plant cells are totipotent

(3) DNA replication is semiconservative

(4) Viruses have genetic material.

45. The sequence of events mentioned below are symbolised by alphabets. Choose the correct answer where the alphabets are matched with the processes

RNA $\xrightarrow{a}$ **DNA** $\xrightarrow{b}$ **DNA** $\xrightarrow{c}$ **mRNA** $\xrightarrow{d}$ **Polypeptide**

(1) a = Reverse transcription. b= Replication, c = Transcription, d = Translation

(2) a = Replication, b = Transformation, c = Transcription, d = Translation

(3) a = Reverse transcription, b = Transformation c= Transcription, d = Translation

(4) a = Replication, b = Transduction. c = Translation, d = Transcription.

46. Match the column:

Column I		**Column II**	
a.	Transforming principle	i.	Watson & Crick
b.	Semiconservative replication	ii.	Gamow
c.	Lac operon model	iii.	Griffith
d.	Triplet codon	iv	Jacob & Monod

(1) a. iii, b. i, c. iv, d. ii (2) a. iv, b. ii, c. iii, d. i

(3) a. i, b. ii, c. iii, d. iv (4) a. iii, b. iv, c. i, d. ii

SECTION - C

REGULATION OF GENE EXPRESSION, HGP AND DNA FINGERPRINTING

1. Which of the following is/are the level of regulating of gene expression in eukaryotes

(a) Translational level

(b) Transport of mRNA from nucleus to the cytoplasm

(c) Processing level

(d) Transcriptional level

(1) a, b only (2) d, c, b only (3) d, c, a only (4) d, c, b, a all

2. Operon contains

(1) Operator and regulator genes

(2) Operator and structural gene

(3) Operator and regulator genes repressor

(4) Operator gene, regulator gene repressor, structural genes and promoter gene

3. Which one of the following is the correct sequence of structural gene in lac operon?

(1) z, a, y (2) z, y, a (3) a, z, y (4) y, a, z

4. According to Operon concept a regulator gene forms

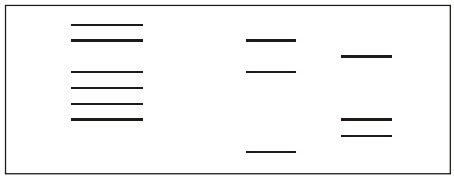
(1) A general inhibitor (2) A small peptide
(3) A repressor (4) An inducer

5. In lac operon, sturctural gene 'Z' synthesises
(1) β-galactosidase (2) Galactosidase permease
(3) Galactosidase transacetylase (4) None of the above.

6. The function of promoter in lac-operon is to
(1) Bind to gyrase (2) Bind to RNA polymerase
(3) Code for DNA polymerase (4) Process mRNA.

7. Due to high degree of polymorphism, size of VNTR varies from
(1) 0.1—2kb (2) 0.1—20 kb
(3) 0.01 — 20 kb (4) 0.1 — 200 kb

8. Which suspect would you charge with the crime
Crime scene sample
Victim Suspect 1 Suspect 2



(1) Both suspect 1 and 2 (2) Only suspect 1
(3) Only suspect 2 (4) Neither suspect 1 nor suspect 2

9. Match the column:

Column – I		Column – II	
a.	VNTR	**i.**	β–Galactosidase
b.	Lac operon	**ii.**	DNA ligase
c.	Genetic code	**iii.**	DNA finger printing
d.	Okazaki fragments	**iv.**	Unambiguous

(1) a. iv, b. ii, c. iii, d. i (2) a. iii, b. i, c. iv, d. ii
(3) a. i, b. ii, c. iii, d. iv (4) a. iii, b. iv, c. i, d. ii

10. The basis of DNA finger-printing is
(1) The double helix (2) Error in base sequence
(3) Polymorphism in sequence (4) DNA replication

11. Which of the following is not related with HGP
(1) BAC & YAC cloning vector (2) Bioinformatics
(3) VNTR (4) EST'S

12. Read the following sentence
(a) The technique of DNA finger printing was initially developed by Alec Jeffreys.
(b) Hybridisation using labelled VNTR probe is one of the step utilize in DNA finger printing
(c) 99.9% of base sequence among human is the same

Pick up wrong statements-

(1) 'a' only (2) 'b' only (3) 'c' only (4) None

13. Best method to determine parternity is

(1) Protein analysis (2) Chromosome counting

(3) Gene counting (4) DNA finger printing

MISCELLANEOUS QUESTIONS

1. Which is true according to Chargaff's rule

(1) A + G = T + C (2) A = C (3) G = T (4) $\frac{A + T}{C + G} = 1$

2. DNA element with ability to change its position is

(1) Cistron (2) Transposon (3) Intron (4) Recon.

3. Intron is part of DNA which

(1) Codes for protein synthesis (2) Helps in joining pieces of DNA

(3) Does not code for protein synthesis (4) Initiates transcription.

4. In DNA replication, the leading strand is the one which replicates in

(1) 5' ⟶ 3' direction continuously (2) 3' ⟶ 5' direction continuously

(3) 5' ⟶ 3' direction discontinuously (4) 3' ⟶ 5' direction discontinuously.

5. Hargobind Khorana was awarded Nobel Prize for

(1) Deciphering genetic code (2) Artificial gene synthesis

(3) Nucleotide sequence of t RNA (4) Discovery of transposons.

6. t-RNA has the function of

(1) Transcription

(2) Adapter for attaching amino acids over mRNA template

(3) Transferring information to mRNA

(4) Carry genetic code to cytoplasm.

7. Length of mRNA that carries information for complete polypeptide synthesis is

(1) Muton (2) Codon (3) Operon (4) Cistron.

8. Codon AUG specifies

(1) Methionine (2) Valine (3) Tyrosine (4) Phenylalanine

9. Which one codes for an amino acid

(1) Cistron (2) Exon (3) Intron (4) Codon

10. Okazaki fragments are

(1) RNA primers (2) Short DNA fragments on leading strand

(3) Short DNA fragments on lagging strand (4) DNA fragments from dimerisation

11. Repressor binds to operator of lac operon

(1) Lactose is unable to remove the repressor (2) RNA polymerase is activated

(3) Galactosidase does not act on lactose (4) Structural genes z, y and a fail to transcribe.

12. Enzyme catalysing peptide formation is located in

(1) Smaller subunit of ribosome (2) Larger subunit of ribosome

(3) Central part of tRNA (4) None of the above

13. Who was awarded Nobel Prize for in vitro synthesis of polyribonucleotides?
(1) Kornberg (2) Tatum (3) Ochoa (4) Khorana

14. What is correct
(1) mRNA is polycistronic in eukaryotes and moncistronic in prokaryotes
(2) mRNA is polycistronic in both eukaryotes and prokaryotes
(3) mRNA is monocistronic in both eukaryotes and prokaryotes
(4) mRNA is polycistronic in prokaryotes and monocistronic in eukaryotes

15. VNTR is employed for
(1) Protoplasmic culture (2) DNA finger printing
(3) Regulation of plant growth hormones (4) Enhancing photosynthesis in desert plant.

16. Smallest part of DNA that can undergo recombination is
(1) Muton (2) Cistron (3) Replicon (4) Recon

17. DNA and RNA differs by
(1) Nitrogen bases and sugars (2) Nitrogen bases and phosphate groups
(3) Number of C- atoms in sugars (4) Sugar and phosphate groups.

18. DNA acts as a template for synthesis of
(1) RNA (2) DNA (3) Both (1) and (2) (4) Protein

19. Length of DNA with 23 base pairs is
(1) 78·4 Å (2) 78·2 Å (3) 78 Å (4) 74 ·8 Å

20. Find the correct match
(1) UUA – Valine (2) AUG – Cysteine (3) AAA – Lysine (4) CCC– Alanine

21. – CCA 3' end of t-RNA is called
(1) Anticodon loop (2) DHU loop
(3) T→C (4) Amino acid binding site

22. Portion of gene which is transcribed but not translated is
(1) Exon (2) Intron (3) Cistron (4) Codon

23. The bond formed between phosphate and pentose sugars of DNA is
(1) Sulphide bond (2) Phosphodiester bond
(3) Hydrogen bond (4) Covalent bond

24. Unwinding due to release of coiling tension ahead of moving replication fork is due to
(1) Gyrase (2) Unwindase (3) Topoisomerase (4) All the above

25. Synthesis of RNA molecule is terminated by
(1) Alpha factor (2) Gamma factor (3) Delta factor (4) rho factor

26. Transcription
(1) Starts at initiations region and ends at stop region
(2) Starts at operator region and ends at telomeric end
(3) Starts at promoter region and ends are terminator region

(4) Starts at CCA box and ends at TATA box.

27. In ATG ACC AGG ACC CCA ACA sequence, the first base gets mutated. It will affect
(1) Change in types and sequence of amino acids
(2) Change in first amino acid only
(3) No change
(4) One amino acid less

28. Hn-RNA is
(1) Heteronuclear RNA (2) Homonuclear RNA
(3) Heterogeneous RNA (4) Useful RNA.

29. Continuously functional genes which are regulated on the tissue level are
(1) House keeping genes (2) Luxury genes
(3) Mild genes (4) Gene battery.

30. Which amino acid is specified by genetic codes ACU, ACC, ACA, ACG showing degeneracy?
(1) Leucine (2) Methionine (3) Glycine (4) Threonine

31. Transfer of DNA bands from agarose gel to nitrocellulose or nylon membrane is
(1) Southern transfer (2) Western transfer (3) Northern transfer (4) Eastern transfer

32. Complete turns in 45000 bp DNA would
(1) 45 (2) 450 (3) 4500 (4) 45, 000.

33. Teminious central dogma of protein synthesis is **(□ = →)-**
(1) DNA □ DNA □ mRNA □ protein (2) mRNA □ gRNA □ DNA □ Protein
(3) gRNA □ DNA □ mRNA □ Protein (4) DNA □ gRNA □ mRNA □ Protein

34. DNA replication requires
(1) DNA polymerase (2) DNA ligase (3) RNA polymerase (4) All the above

35. The RNA primer is used in
(1) Translation (2) Replication (3) Conjugation (4) Transformation

36. In a DNA, percentage of thymine is 20% what is the percentage of guanine
(1) 20% (2) 40% (3) 30% (4) 60%

37. According to the lac-operon concept, which functional unit of the bacterial genetic material is responsible for suppressing the activity of the operator gene in the absence of lactose?
(1) Structural gene (2) Regulator gene (3) Repressor protein (4) Promoter gene.

38. During translation in eukaryotes the anticodon to be aligned with the initiation codon is
(1) 5' – UAC – 3' (2) 3' – UAC – 5' (3) 5' – UCA – 3' (4) 3' – CAU – 5'

39. In a DNA segment having six coils, there are 22 nitrogen base pairs linked by two hydrogen bonds. How many cytosine bases are found in that segment?
(1) 22 (2) 38 (3) 44 (4) 76

40. Identify the triplet codons which code for amino acids serine and proline.
(a) UCC (b) CCA (c) GGG (d) AAG
The correct answer is
(1) a and c (2) b and d (3) c and d (4) a and b

41. The strand of DNA acting as template for m-RNA transcription is

(a) Coding strand (b) Noncoding strand (c) Sense strand (d) Antisense strand

The correct answer is

(1) a and c (2) a and d (3) b and c (4) b and d

42. An eukaryotic gene contains two kinds of base sequences. Which of these plays an important role in protein synthesis

(1) Introns (2) Exons (3) Both (1) and (2) (4) None of these

IMPORTANT PRACTICE QUESTION SERIES FOR NEET EXAM – 1 (ANSWERS)

SECTION - A

1.	(3)	**2.**	(4)	**3.**	(1)	**4.**	(3)	**5.**	(3)	**6.**	(2)	**7.**	(3)
8.	(2)	**9.**	(3)	**10.**	(4)	**11.**	(4)	**12.**	(2)	**13.**	(1)	**14.**	(3)
15.	(1)	**16.**	(1)	**17.**	(2)	**18.**	(1)	**19.**	(1)	**20.**	(1)	**21.**	(1)
22.	(4)	**23.**	(3)	**24.**	(3)	**25.**	(1)	**26.**	(4)	**27.**	(3)	**28.**	(1)
29.	(4)												

SECTION - B

1.	(3)	**2.**	(1)	**3.**	(3)	**4.**	(2)	**5.**	(2)	**6.**	(2)	**7.**	(1)
8.	(3)	**9.**	(3)	**10.**	(1)	**11.**	(1)	**12.**	(3)	**13.**	(3)	**14.**	(3)
15.	(3)	**16.**	(4)	**17.**	(4)	**18.**	(3)	**19.**	(1)	**20.**	(1)	**21.**	(3)
22.	(3)	**23.**	(1)	**24.**	(2)	**25.**	(2)	**26.**	(1)	**27.**	(4)	**28.**	(3)
29.	(1)	**30.**	(1)	**31.**	(2)	**32.**	(1)	**33.**	(2)	**34.**	(2)	**35.**	(2)
36.	(4)	**37.**	(2)	**38.**	(2)	**39.**	(2)	**40.**	(2)	**41.**	(4)	**42.**	(3)
43.	(3)	**44.**	(1)	**45.**	(1)	**46.**	(1)						

SECTION - C

1.	(4)	**2.**	(4)	**3.**	(2)	**4.**	(3)	**5.**	(1)	**6.**	(2)	**7.**	(2)

8.	(2)	**9.**	(2)	**10.**	(3)	**11.**	(3)	**12.**	(4)	**13.**	(4)		

Miscellaneous Questions

1.	(1)	**2.**	(2)	**3.**	(3)	**4.**	(1)	**5.**	(2)	**6.**	(2)	**7.**	(4)
8.	(1)	**9.**	(4)	**10.**	(3)	**11.**	(4)	**12.**	(2)	**13.**	(3)	**14.**	(4)
15.	(2)	**16.**	(4)	**17.**	(1)	**18.**	(3)	**19.**	(2)	**20.**	(3)	**21.**	(4)
22.	(2)	**23.**	(2)	**24.**	(3)	**25.**	(4)	**26.**	(3)	**27.**	(2)	**28.**	(3)
29.	(1)	**30.**	(4)	**31.**	(1)	**32.**	(3)	**33.**	(3)	**34.**	(4)	**35.**	(2)
36.	(3)	**37.**	(2)	**38.**	(2)	**39.**	(2)	**40.**	(4)	**41.**	(4)	**42.**	(2)