II ND PUC BOTANT NEET PART II

# Question 1

The building block of nucleic acid is:

1. Nitrogenous base
2. Ribose sugar
3. Phosphate group
4. Nucleotide

# Question 2

Which of the following base pairs in DNA are correct?

1. Adenine-Cytosine
2. Guanine-Cytosine
3. Adenine-Guanine
4. Guanine-Thymine

# Question 3

In the Griffith experiment, which of the following resulted in the death of the mice?

1. Live S strain bacteria → Inject into mice
2. Live R strain bacteria → Inject into mice
3. Heat-killed S strain bacteria → Inject into mice
4. Heat-killed R strain bacteria → Inject into mice

# Question 4

In which of the following processes does copying of genetic information from one strand of DNA into RNA take place?

1. Replication
2. Transcription
3. Mutation
4. Translation

# Question 5

Which of the following is/are<strong> </strong>the characteristic(s) of genes?

1. Replication and transmission to progeny
2. Mutability
3. Storage of hereditary information
4. All of the above

# Question 6

Which of the following does not define the transcription unit in a DNA?

1. Terminator
2. Promoter
3. The inducer
4. Structural gene

# Question 7

VNTR are useful in DNA profiling because they:I. Are hypervariableII. Are inheritedIII. Synthesize constitutive enzymesChoose the correct option given below?

1. I, II, III are correct
2. I and II are correct
3. I and III are correct
4. II and III are correct

# Question 8

In a genetic code, some codons do not code for amino acids that function as stop codons. Which of the following does not belong to this group?

1. UAG
2. UAA
3. UUU
4. UGA

# Question 9

Which of the following codes has a dual function?

1. AUG
2. UUU
3. UGA
4. UAA

# Question 10

In point mutation, how many base pairs are inserted or deleted?

1. Three
2. Multiples of three
3. Two
4. One

# Question 11

Match the following:

|c|c|c| <p align="center" class="MsoNormal">1.<o:p></o:p> & <p align="center" class="MsoNormal">Splicing<o:p></o:p> & <p align="center" class="MsoNormal">a.<o:p></o:p> & <p align="center" class="MsoNormal">Addition of methyl guanosine triphosphate at 5’–end<o:p></o:p>  
<p align="center" class="MsoNormal">2.<o:p></o:p> & <p align="center" class="MsoNormal">Capping<o:p></o:p> & <p align="center" class="MsoNormal">b.<o:p></o:p> & <p align="center" class="MsoNormal">Addition of adenylate residues at 3’–end<o:p></o:p>  
<p align="center" class="MsoNormal">3.<o:p></o:p> & <p align="center" class="MsoNormal">Tailing<o:p></o:p> & <p align="center" class="MsoNormal">c.<o:p></o:p> & <p align="center" class="MsoNormal">Removal of non-coding introns<o:p></o:p>

1. 1 - c, 2 - b, 3 - a
2. 1 - c, 2 - a, 3 - b
3. 1 - a, 2 - c, 3 - b
4. 1 - b, 2 - a, 3 - c

# Question 12

The tendency of offspring to differ from parents is called:

1. Resemblance
2. Variation
3. Inheritance
4. Heredity

# Question 13

 Which of the following is not a correct statement with respect to DNA?

1. It is a long polymer
2. It is found in the nucleus
3. First identified by Friedrich Meischer
4. It is a basic substance

# Question 14

Which one of the following is correct regarding mature mRNA in eukaryotes?

1. Exons and introns do not appear in the mature RNA.
2. Exons appear but introns do not appear in the mature RNA.
3. Introns appear but exons do not appear in the mature RNA.
4. Both exons and introns appear in the mature RNA.

# Question 15

The last human chromosome that was completely sequenced is:

1. Chromosome 21
2. Chromosome X
3. Chromosome 11
4. Chromosome 1

# Question 16

In double helix model of DNA, how far is each base pair from the next base pair?

1. 3.4 nm
2. 0.34 nm
3. 2.0 nm
4. 34 nm

# Question 17

By which of the following bonds, a nitrogenous base is linked to the pentose sugar?

1. Phosphate bond
2. Ester bond
3. Peptide bond
4. N-glycosidic bond

# Question 18

The location of promoter site and the terminator site for transcription is:

1. 3 (downstream) end and 5 (upstream) end, respectively of the transcription unit
2. 5 (upstream) end and 3 (downstream) end, respectively of the transcription unit
3. The 5 (upstream) end
4. The 3 (downstream) end

# Question 19

The chemical name for thymine is known as:

1. 5-methoxy uracil
2. 3-methoxy uracil
3. 5-methyl uracil
4. 3-methy uracil

# Question 20

Which of the following enzymes are used to transcript a portion of the DNA into mRNA?

1. RNA polymerase
2. DNA polymerase
3. Protein polymerase
4. Hydrolase

# Question 21

DNA generally acts as a template for the synthesis of:

1. Protein only
2. DNA only
3. RNA only
4. RNA and DNA both

# Question 22

GUG specifies amino acid valine. However, when functioning as initiation codon it specifies \_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Methionine
2. Valine
3. Lysine
4. Isoleucine

# Question 23

Meselson and Stahl used which radio isotopes for their experiment?

1. N
2. O
3. C
4. All of the above

# Question 24

In the absence of Lactose, what is expected to happen according to lac operon model?

1. Structural genes transcribe for lactose permease
2. Repressor protein binds to the operator site
3. RNA polymerase interacts with DNA to initiate transcription
4. β-galactosidase, lactose permease and thiogalactoside transacetylase are synthesized