GENETICS

PYQ –Overdose
Genetics Med Exam (2019)

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Q1: DNA Gyrase consider as :

Answer : type two topoisomerase.

Q2: Robertsonian translocation occurs only with five chromosomes:

Answer : 13,14,15,21 and 22.

Q3: IF T(nitrogenous base) = 34% , How much (cytosine) C=?? :

Answer : 16%.

Q4: The most common inversion seen in human is on chromosome:

Answer : chromosome 9.

Q5: RNA polymerase transcription rate is:

Answer : 30-50 nucleotide/ second.

Q6: (30 s) intiation complex compose of all except:

Answer : methionine trna.

Q7: Aziz Sancar was awarded Nobel Prize for his work on:

Answer : DNA repair.

Q8: Cancer cells are immortal because of the activity of which enzyme:

Answer : Telomerase enzyme.

Q9: Regulatory region in DNA is :

Answer : promoter.

Q10: Promoter have all except :

Answer : primer.

Q11: Telomeres are rich in:

Answer : G (Guanine).

Q12: Replication and Transcription are similar in all of the following except:

Answer: both strands are copied in DNA replication.

Q13: All of the following is correct about DNA polymerase alpha activity except:

Answer : has 3'- 5' exonuclease activity.

Q14: The anti codon of tRNA base pairs with codon of mRNA , select answer:

Answer : UAC.

Q15: One of them is initiation code in e.coli :

Answer : GUG.

Q16: (21st amino acids) is:

Answer : selenocysteine.

Q17: Choose the wrong statement :

Answer: mature mRNA contains introns.

Q18: Post- translational hydroxylation for which amino acids:

Answer: Proline and Lysine.

Q19: Initiation of transcription in eukaryotes primarily controlled by:

Answer : formation of pre initiation complex.

Q20: IN transcription of prokaryote, any of these process occur in initiation process :

Answer : transform from closed complex to open complex.

Q21: Two amino acids have a single gentic code:

Answer : tryptophan and methionine.

Q22: principle DNA polymerase in eukaryotic is:

Answer : delta DNA polymerase.

Q23: Not part of initiation complex of DNA replication in eukaryotes:

Answer : CDKs(cyclin- dependent kinase).

Q24: what is the force that drive the reaction:

Amino acid+ ATP $\longrightarrow$ aminoacyl-AMP+PPi

Amino acyl-AMP+ tRNA ⟶ amino acyl- tRNA +AMP

Answer: cleavage of pyrophosphate.

Q25: what is true about transcription process:

Answer : proteins assist in transcription process.

Q26: Diphtheria toxin work by:

Answer : inactivate the eukaryotic elongation factor thus prevent translocation.

Q27: How chloramphenicol inhibit protein synthesis?

Answer : it inhibt prokaryotic peptidyl transferase enzyme.

Q28: enzyme that help in transcribtion of (tRNA):

Answer: RNA polymerase III.

Q29: helix –de stabilizing protein is:

Answer: helicase.

Q30: DNA polymerase that is located in mitochondria:

Answer: DNA polymerase gamma.

Q31:DNA polymerase that has no replication activity:

Answer : DNA polymerase beta.

Q32: enzyme which remove the RNA primers and replace them by DNA pieces:

Answer : DNA polymerase I.

Q33:RNA polymerase in prokaryote and eukaryote are similar in the following except:

Answer : they have same number of subunit.

Q34: DNA transcription differ from RNA transcription in:

Answer : DNA transcription needs a primer .

Q35: Exchange of DNA which allow mixing genetic s of father and mother to produce new combination is:

Answer: DNA Recombination.

Q36: all of the following is correct about restriction enzymes except:

Answer : they are human origin.

Q37: What is the type of mutation in sickle cell anemia?

Answer: mis –sense mutation.

Q38: Nucleotide sequence found in -10 bp region in prokaryote:

Answer: TATAAT.

Q39: enzyme that recognize peptide bond:

Answer : transferase enzyme.

Q40:on of the following statement is false:

Answer: Jacobsen syndrome is caused by deletion in 11P arm.

Q41: Order the following process ascending:

Answer: recognition,nicking,excision,replace then sealing.

Q42: The RNA for the Alzheimar related gene is 2400 nucleotide long when isolated from neurons, but 2900 nucleotide long when isolated from glial cells.genomic DNA isolatedfrom two cell type show identical nucleotide sequence, which of the following mechanism best account for the differences in the size of m-RNA:

Answer : alternative splicing.

Q43: Which form of DNA is left handed:

Answer : Z form.

Q44: Primer length in DNA replication in prokaryote:

Answer : 10 nucleotide.

Q45: If someone take toxin and this toxin inhibits RNA polymerase II which RNA synthesis will be affected:

Answer : m-RNA.