1. DNA Replication occurs at -
(a)G_0&G_1
(b) G_2 - stage
(c) S - Stage
(d) Mitotic phase

2. In the base sequence of one strand of DNA is GAT , TAG ,CAT , GAC what shall be the sequence of its complementary strand-
(a) CAT, CTG, ATC, GTA
(b) GTA, ATC, CTG, GTA
(c) ATC, GTA, CTG, GTA
(d) CTA, ATC, GTA, CTG

3. Which one of the following hydrolyses internal phosphodiester bonds in a polynucleotide chain –
(a) Lipase
(b) Protease
(c) Exonuclease
(d) Endonuclease

4. The direction of D.N.A. replication is :
(a) From 5' end towards 3' end
(b) From 3' end towards 5' end
(c) Amino terminus to carboxy terminus
(d) Carboxy terminus to amino terminus

5. Which of the following enzyme is used in DNA multiplication :-
(a) RNA polymerase
(b) DNA endonuclease
(c) Exonuclease
(d) DNA Polymerase

6. Which of the following enzyme is used to join DNA fragments :-
(a)Terminase
(b) Endonuclease
(c) Ligase
(d) DNA polymerase

7. DNA replication includes :-
(a) DNA ligase
(b) DNA polymerase and ligase
(c) RNA polymerase and ligase
(d) All of these

8. The strand of DNA, which does not code for anything is referred to as :-
(a) Template strand
(b) Antisense strand
(c) Coding strand
(d) Noncoding strand

9. Replication fork is –
(a) Large opening of the DNA helix
(b) Small opening of the DNA helix
(c) Tightly coiled part of DNA helix
(d) Loosely coiled part of DNA helix

10. Main enzyme of DNA replication is –
(a) DNA dependent RNA polymerase

(b) DNA dependent DNA polymerase
(c) RNA dependent RNA polymerase
(d) RNA dependent DNA polymerase

11. A DNA strand on which new strand is produced is called

(a) complementary (b) template
(c) primer (d) elongating

12. The strand of DNA which is synthesized continuously during replication is called

(a) leading strand (b) lagging strand
(c) sense strand (d) antisense strand

13. Which of the following serves as a termination codon ?

(a) AUG (b) CGC
(c) UAG (d) GUG

14. Which of the following is Pribnow box?

(a) 5' AATAAT3' (b) 5' ATATTA3'
(c) 5' TATAAT3' (d) 5TAATTA3'

15. In DNA replication, the role of RNA primer is to–

(a) Activate the DNA template
(b) Synthesize DNA nucleotides for the formation of new strand
(c) Initiate the formation of new strand on the template
(d) Perform all these functions

16. Termination of the translation process occurs at the

(a) 5' end of the DNA template (b) 3' end of the mRNA
(c) 3' end of t-RNA (d) 5' end of mRNA

17. Sigma factor is component of

(a) RNA polymerase (b) Dissociation factor
(c) DNA ligase (d) DNA polymerase

18. 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–

(a) 8 (b) 7
(c) 6 (d) 5

19. 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.

(a) One (b) Two
(c) Three (d) All are correct

20. 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

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

21. 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

(a) a→iii, b→i, c→iv, d→ii (b) a→iv, b→ii, c→iii, d→i
(c) a→i, b→ii, c→iii, d→iv (d) a→iii, b→iv, c→i, d→ii

22. Which may be attached with Adenine base in RNA -
(a) Guanine
(b) Cytosine
(c) Uracil
(d) Thymine

23. During transcription, the DNA site at which RNA polymerase binds is called :-
(a) Promoter
(b) Regulator
(c) Receptor
(d) Enhancer

24. Which one of the following makes use of RNA as a template to synthesize DNA –
(a) DNA dependant RNA polymerase
(b) DNA polymerase
(c) Reverse transcriptase
(d) RNA polymerase

25. The enzyme responsible for transcription is :-
(a) D.N.A polymerase-I
(b) R.N.A. polymerase
(c) Reverse transcriptase
(d) D.NA. polymerase-III

26. Correct order of molecular weight is :-
(a) DNA < r-RNA < t-RNA

(b) DNA < m-RNA < r-RNA
(c) t-RNA < m-RNA < DNA
(d) t-RNA < DNA < m-RNA

27. DNA acts as a template for synthesis of :-
(a) RNA
(b) DNA
(c) Both '1' and '2'
(d) Protein

28. The most abundant RNA of cell is :-
(a) r-RNA
(b) t-RNA
(c) m-RNA
(d) None of these

29. Inverse transcription was discovered by :-
(a) Watson and Crick
(b) Khorana
(c) Temin an Baltimore
(d)Meischer

30. Transcription unit in DNA is –
(a) Promoter
(b) Structural gene
(c) Terminator
(d) All

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