

SECTION A: ANSWER KEY

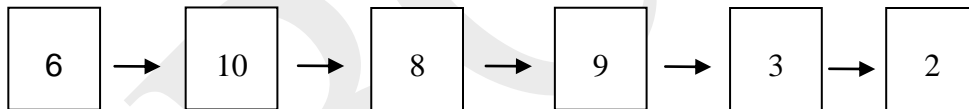
Q. No.	a	b	c	d	Q. No.	a	b	c	d
1.		✓			16.	✓			
2.				✓	17.		✓		
3.				✓	18.			✓	
4.	✓				19.			✓	
5.			✓		20.		✓		
6.			✓		21.	✓			
7.				✓	22.				✓
8.			✓		23.				✓
9.		✓			24.			✓	
10.		✓			25.		✓		
11.				✓	26.			✓	
12.		✓			27.	✓			
13.		✓			28.	✓			
14.			✓		29.				✓
15.				✓	30.				✓

SECTION B: ANSWER KEY**CELL BIOLOGY (11 points)**

31. (2 points)

Statements	True	False
A		✓
B		✓
C	✓	
D		✓

32. (2.5 points)



33. (1.5 points)

Statements	True	False
A	✓	
B		✓
C	✓	

34. (2 points)

Statements	True	False
A	✓	
B		✓
C		✓
D	✓	

35. (1 point)

Answer: _____ 4

36. (2 points)

Answer: _____ 2001

PLANT SCIENCES (10 points)

37. (2 points)

Statements	True	False
A	✓	
B		✓
C	✓	
D		✓

38. (3 points)

1. Metaxylem: _____ 6, 12
2. Pith: _____ 7
3. In mature dicot root, this region is enlarged and serves for food (starch) storage. : _____ 8
4. These cells remain meristamatic and give rise to lateral roots. _____ 10
5. Apoplastic pathway is hindered because of this structure: _____ 9

39. (2 points)

Interpretations	Correct	Incorrect
A		✓
B	✓	
C	✓	
D	✓	

40. (2 points)

Results	Expected	Not expected
A	✓	
B		✓
C	✓	
D	✓	

41. (2 points)

a.	b.	c.	d.
			✓

ANIMAL SCIENCES (10 points)

42. (2 points)

Statements	True	False
1		✓
2	✓	
3		✓
4	✓	

43. (3 points)

a. Anoxia tolerant: _____ 2, 3

b. Anoxia intolerant: _____ 1

c. Anoxia tolerance or intolerance cannot be predicted: _____ -

44. (3 points)

Processes	P	Q
a.	✓	
b.		✓
c.		✓
d.	✓	
e.	✓	
f.	✓	

45. (2 points)

1. Animal prefers to run on ground. _____ B
2. Animals swim in aquatic habitat. _____ D
3. Animals live a subterranean life. _____ C
4. Climbing animals living in and moving through trees. _____ A

GENETICS & EVOLUTION (16.5 points)

46. (1.5 points)

Statements	True	False
A		✓
B	✓	
C	✓	

47. (2.5 points)

Description	Genotype
A	XO or 2
B	XXY or 5
C	XXX or 4
D	XYY or 6
E	XX/XY chimera or 1

48. (2 points)

a.	b.	c.	d.
		✓	

49. (2 points)

Answer: _____ 0.17 or 17%

50. (2 points)

Statements	True	False
A		✓
B		✓
C	✓	
D		✓

51.

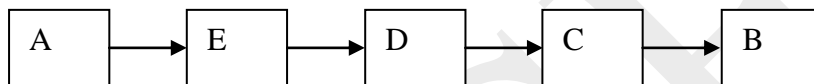
i. (2 points)

Answer: _____ $1/64$ or 0.0156 or 1.56%

ii. (2 points)

Answer: _____ $3/64$ or 0.0468 or 4.68%

52. (2.5 points)

**ECOLOGY (8 points)**

53. (2 points)

 f_1 : _____ 2 f_2 : _____ 3 f_3 : _____ 1 f_4 : _____ 4

54.

(I) (0.5 point)

a.	b.	c.	d.
		✓	

(II) (0.5 point)

Answer: _____(F/E) x 100%

(III) (0.5 point)

Answer: _____[(H+I)/F] x 100 % or [(F – G) / F] x 100%

(IV) (0.5 point)

Answer: _____(I / E) x 100%

(V)(2 points)

Equation	Holds True	Does not hold true
a.	✓	
b.		✓
c.		✓
d.		✓

55. (2 points)

Descriptions	True	False
A		✓
B	✓	
C		✓
D	✓	

ETHOLOGY (6.5 points)

56.

(I) (2.5 points)

Statements	True	False
A		✓
B		✓
C	✓	
D		✓
E	✓	

(II) (2 points)

Answer: _____ 10

57. (2 points)

Statements	True	False
A	✓	
B	✓	
C		✓
D		✓

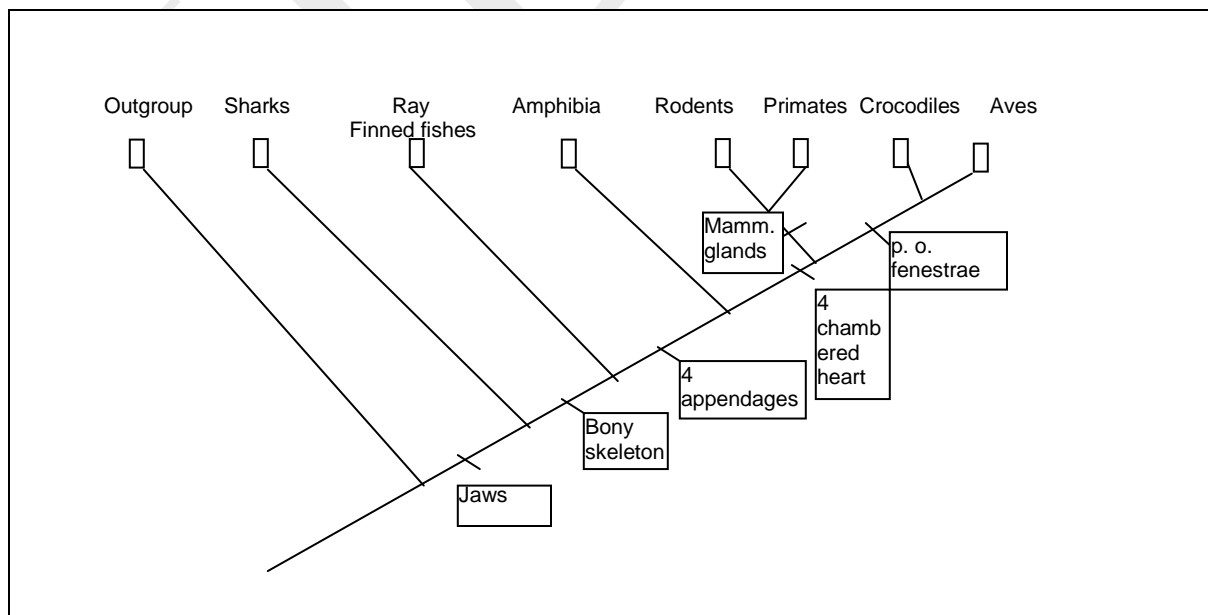
BIOSYSTEMATICS (8 points)

58.

(I) (3.5 points)

Sr. No.	Class/group	Bony skeleton	Four chambered heart	Four Appendages	Mammary glands	Jaws	Post orbital fenestrae
1	Outgroup	0	0	0	0	0	0
2	Sharks	0	0	0	0	1	0
3	Ray-finned fishes	1	0	0	0	1	0
4	Amphibia	1	0	1	0	1	0
5	Primates	1	1	1	1	1	0
6	Rodents	1	1	1	1	1	0
7	Crocodiles	1	1	1	0	1	1
8	Aves	1	1	1	0	1	1

(II) (2.5 points)



(III) (1 point)

a.	b.	c.	d.
			✓

(IV) (1 point)

a.	b.	c.	d.
	✓		

***** END OF SECTION B *****