

**SECTION A: ANSWER KEY**

| Q.<br>No. | a | b | c | d | Q.<br>No. | a | b | c  | d |
|-----------|---|---|---|---|-----------|---|---|----|---|
| 1.        |   | ✓ |   |   | 12.       |   |   | ✓  |   |
| 2.        |   | ✓ |   |   | 13.       |   |   | ✓  |   |
| 3.        |   |   | ✓ |   | 14.       |   | ✓ |    |   |
| 4.        |   |   |   | ✓ | 15.       |   |   |    | ✓ |
| 5.        | ✓ |   |   |   | 16.       |   |   | ✓* | ✓ |
| 6.        | ✓ |   |   |   | 17.       |   | ✓ |    |   |
| 7.        |   | ✓ |   |   | 18.       |   | ✓ |    |   |
| 8.        |   |   | ✓ |   | 19.       |   | ✓ |    |   |
| 9.        |   | ✓ |   |   | 20.       |   | ✓ |    |   |
| 10.       |   |   |   | ✓ | 21.       |   |   | ✓  |   |
| 11.       |   | ✓ |   |   |           |   |   |    |   |

\*For Question number 16, students marking either option 'c' or 'd' have been given points.

**SECTION B: ANSWER KEY****CELL BIOLOGY (13 points)**

22. (2 points)

a. \_\_T\_\_

b. \_\_F\_\_

c. \_\_F\_\_

d. \_\_F\_\_

23. (2 points)

a. \_\_F\_\_

b. \_\_T\_\_

c. \_\_T\_\_

d. \_\_F\_\_

24. (2.5 points)

| Statement | True | False |
|-----------|------|-------|
| a.        | ✓    |       |
| b.        | ✓    |       |
| c.        |      | ✓     |
| d.        |      | ✓     |
| e.        |      | ✓     |

25. (2.5 points)

- a. T
- b. F
- c. F
- d. T
- e. T

26. (1.5 points)

- a. F
- b. T
- c. F

27. (2.5 points)

- a. F
- b. T
- c. F
- d. F
- e. T

**PLANT SCIENCES (8 points)**

28. (2 points)

| a. | b. | c. | d. |
|----|----|----|----|
| ✓  |    |    |    |

29. (2 points)

a. F

b. T

c. T

d. F

30. (2 points)

a. F

b. T

c. T

d. F

31. (2 points)

I. D is a phycobilin pigment which gives cyanobacteria its characteristic blue-green colour.

II. C is the major pigment found in eukaryotic plants growing in deep marine waters.

III. A and E are the dominant photosynthetic pigments found in Pteridophytes.

### **ANIMAL SCIENCES (19.5 points)**

32. (2 points)

a. F

b. T

c. T

d. T

33. (4 points)

| Compound | As AED effective (✓)/ not effective (X) | Mechanism/s  |
|----------|---|--------------|
| A        | ✓                                       | iii, vi, vii |
| B        | ✓                                       | i, v, vii    |
| C        | X                                       | ii, iv       |
| D        | ✓                                       | i, v, vii    |

34. (2 points)

|  | Parasympathetic (P) or Sympathetic (S) |
|--|--|
| i. Increase peristalsis in Gastro intestinal tract | P                                      |
| ii. Constriction of bronchi in lungs               | P                                      |
| iii. Dilation of pupil                             | S                                      |
| iv. Inhibition of contraction of urinary bladder   | S                                      |

35. (3 points)

- a. \_\_T\_\_
- b. \_\_F\_\_
- c. \_\_T\_\_
- d. \_\_T\_\_
- e. \_\_T\_\_
- f. \_\_T\_\_

36. (2 points)

Answer: \_\_\_\_\_ 56.1 \_\_\_\_\_ kcal

37. (2.5 points)

a. \_\_T\_\_

b. \_\_T\_\_

c. \_\_T\_\_

d. \_\_F\_\_

e. \_\_F\_\_

38. (4 points)

Answer:

A: \_\_a\_\_ B: \_\_c\_\_ C: \_\_d\_\_ D: \_\_e\_\_

**GENETICS & EVOLUTION (14.5 points)**

39. (2 points)

i. Answer: \_\_\_\_\_ 1/64 \_\_\_\_\_

ii. Answer: \_\_\_\_\_ 67/256 \_\_\_\_\_

40. (2 points)

a. 47.5% DPh, 47.5% dph, 2.5% Dph, 2.5% dPh

b. 23.75% of each dPH, dPh, DpH, Dph

1.25% each of DPH, DPh, dpH, dph

41. (A) (2 points)

- a. \_\_T\_\_
  - b. \_\_F\_\_
  - c. . \_\_F\_\_
  - d. \_\_T\_\_

(B) (2 points)

|    |    |    |    |
|----|----|----|----|
| a. | b. | c. | d. |
|    |    |    | ✓  |

42. (2 points)

- a. \_\_\_T\_\_\_
  - b. \_\_\_F\_\_\_
  - c. \_\_\_T\_\_\_
  - d. \_\_\_T\_\_\_
  - e. \_\_\_-\_\_\_

43. (A) (2 points)

- a. \_\_\_T\_\_\_
  - b. \_\_\_T\_\_\_
  - c. \_\_\_F\_\_\_
  - d. \_\_\_F\_\_\_

(B) (2.5 points)

- a. T
- b. F
- c. T
- d. T
- e. T

**ETHOLOGY (7 points)**

44. (2.5 points)

- a. F
- b. F
- c. T
- d. F
- e. T.

45. (2 points)

- a. T
- b. F
- c. F
- d. F

46. (2.5 points)

- a. T
- b. F
- c. F

d. T

e. F

### **ECOLOGY (12 points)**

47. (2 points)

a. T

b. F

c. T

d. T

48. (2 points)

a. F

b. F

c. T

d. F

49. (2 points)

a. T

b. T

c. T

d. F

50. (3 points)

| a. | b. | c. | d. |
|----|----|----|----|
|    |    |    | ✓  |

**51. (3 points)**

- a. F
- b. T
- c. T
- d. T
- e. T
- f. F

**BIOSYSTEMATICS (5 points)**

**52. (2 points)**

- a. F
- b. F
- c. T
- d. F

**53. (3 points)**

- i. c
- ii. d
- iii. e
- iv. a
- v. b
- vi. h

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