



Attempt questions first; check the separate key afterward. Show all working. Draw accurate figures where required.

A. Very short answers - 1 mark each

1. Why is reproduction important for a species?
2. Distinguish reproduction from growth.
3. Does asexual reproduction normally involve gamete fusion?
4. Compare sexual and asexual reproduction.
5. Name the asexual method in Amoeba.
6. Illustrate binary fission in successive stages.
7. Name the method in yeast that produces a small outgrowth.
8. Explain how budding differs from fission.

B. Short answers / practice - 2 marks each

9. Which structure produces spores in Rhizopus?
10. Explain how spores aid survival and dispersal.
11. Name a plant propagated by stem cuttings.
12. Explain two benefits of vegetative propagation in agriculture.
13. Name the male and female reproductive parts of a flower.
14. Draw and label a bisexual flower.
15. What is pollination?
16. Distinguish pollination from fertilisation.
17. Where does a pollen tube usually grow after germination on stigma?
18. Trace events from pollination to seed formation.
19. What does a fertilised egg become after early development begins?
20. Distinguish zygote, embryo and seed in flowering plants.

C. Application / reasoning - 3 marks each

21. Name the male and female human gametes.

22. Explain why gametes normally carry half the chromosome number.

23. Does fertilisation restore the diploid chromosome number?

24. If gametes have 12 chromosomes each, find zygote chromosome count.

25. Name a condition required for seed germination other than suitable temperature.

26. Design a fair test of the role of water in germination.

27. Name the fusion of male and female gametes.

28. A species has 30 chromosomes in ordinary body cells. Find the normal gamete count.

29. Explain why seed dispersal reduces competition near the parent plant.

30. Can a seed germinate without soil if water, oxygen and suitable temperature are supplied?

31. Compare wind-pollinated and insect-pollinated flowers using two adaptations each.

D. Extended practice - 5 marks per pair

32. Are all seeds dispersed by wind?
33. Compare adaptations for wind, water and animal dispersal.
34. Can offspring from sexual reproduction differ from both parents?
35. Explain sources and significance of variation, contrasting clonal and sexually produced offspring.

ANSWER KEY - Numerical / closed questions

3) No. 5) Binary fission. 7) Budding. 9) Sporangium. 11) Example: rose. 13) Stamen; pistil/carpel. 17) Through style toward ovule. 19) Embryo. 21) Sperm; ovum. 23) Yes. 24) 24. 25) Water and oxygen. 27) Fertilisation. 28) 15. 30) Yes, using stored food initially. 32) No. 34) Yes.