

Shivagadhi English School

1st Terminal Examination 2081

Class :10 Subject: Science

F. M. 75

Time :3hrs

P.M. 30

1. Circle the correct alternative of the following questions. 10

a. Which of the following is a fundamental unit ?

i) Newton ii) Pascal iii) Kilogram iv) Jo

b. The number of scientific variables is

i) 2 ii) 3 iii) 4 iv) 10

c. Who is known as the father of taxonomy ?

i) Whittaker ii) Carl woese

iii) Haeckel iv) Linnaeus

d) Which phylum of the following has multi cellular , sessile & pore bearer animals ?

i) Annelida ii) Porifera iii) Coelenterate iv) Mollusca

e) To which kingdom do organism having cell walls belong ?

i) Monera , Fungi , animalia ii) Fungi , plantae protista

iii) Fungi , planate , animalia iv) Fungi , plantae monera

f) Which bee contains 16 chromosomes ?

i) Queen bee ii) Drone bee

iii) worker bee iv) Queen & worker

g) For how long can a queen honey bee live ?

i) about 2-3 years ii) about 6 weeks

iii) about 24 weeks iv) up to 10 years

h) Which bee is formed when the larva is fed royal jelly continuously?

i) Queen ii) Drone iii) Workers iv) queen & workers

i) Which nitrogenous base is not found in DNA ?

i) Adenine ii) Guanine iii) Thymine iv) Uracil

j) What plant did mendel use for his experiment ?

i) Pea ii) maize iii) Gram iv) Bean

Group B

Write very short answer to the following questions. 9x1=9

2. Why are controlled variables important in experiments ?

3. What is the unit of electric current ?

4. Name two vascular plants .

5. The spider has four pairs of jointed legs , which phylum does it belong?

6. Who proposed the five- Kingdom system of classification ?

7. Which be in the hive is responsible for laying eggs ?

8. Write the various types of bee found in the hive .

9. What is gene ?

10. Write the full form of IVF.

Group C

Short answer type questions 14x2=28

11. $v^2 = ut$ is valid or not ?

12. What is the unit of pressure ? why is it called derived unit ?

13. Find out the fundamental units involved in the given derived unit .

a) Newton b) Watt

14. Define independent variable . Write its importance in scientific research

15. The bryophytes are called amphibian plants why ?

16. List the five kingdoms with characteristic feature.

17. Write the importance of classification .

18. Why are honey bees called social insects ?

19. Write the classification of honey bee.

20. Why male bees die after mating with a queen.

21. Differentiate between autosomes & sex chromosome .

22. How is sex determined in humans ? Explain with a chart .

23 . What is a chrosome ? what are its constituents ?

24. Describe the law of dominance in short with a chart.

Group D

Long answer type questions 7x4=28

25. Raman wants to investigate which colour of an object has the highest capacity to absorb heat. He took four tin cans & painted them with black white , green & red colours respectively . He poured an equal amount of water into each in

a sunlight for an hour After that , he measured the temperature of the water in each can using a thermometer .

Answer the following questions . based on this experiment.

- i) Write the independent & dependent variables .
- ii) Which variables should be controlled by Raman ? Explain .
- iii) How will Raman ensure that the temperature measurements are accurate ?
- iv) What is the hypothesis of this experiment?

26. Niva claimed that an alternative formula for power is

$$p = mv^2 \text{ \& the formula for pressure is } p = \frac{mv}{A}$$

Check the validity of given formula by the analysis of units .

27. Ram visited his kitchen garden where he saw a bee sucking the nectar from mustard flower . Then he classified bee & mustard . In which phylum/ division did he put the bee & the mustard ? Write two characters of each .

28. Explain the life cycle of honey bee with diagram.

29. What is artificial insemination ? How is it differ from IVF ?

List the process of test tube baby .

30. In what ratio will black & brown dogs be seen when Black (BB) & brown (bb) dogs are crossed together ? Show with the help of chart up to f_2 generation .

31. Study the given diagram to answer the following questions

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	R	r
R	RR	Rr
r	Rr	rr

- i) Which filial generation is shown in the given diagram.
- ii) Write the phenotype & genotype of the generation .
- iii) Mention the character of parents participated in it .
- iv) How does it support the law of purity of gametes ?

The End