

मंगलाबाई भागवत फाऊंडेशन

Time :2 hours

Science and Technology – Part II

Marks:40

- Note :-**
- i) All questions are compulsory.
 - ii) Use of a calculator is not allowed.
 - iii) The numbers to the right of the questions indicate full marks.
 - iv) In case of MCQS (Q. No. 1 A), only the first attempt will be evaluated and will be given credit.
 - v) For each MCQ, the correct attentive (A), (B), (C), or (D) with sub question number is to be written as an answer.
E.g. i) (A), (ii) (B), (iii) (C).
 - vi) Scientifically correct, labelled diagrams should be drawn wherever necessary.

Q.1. (A) Write the correct alternative. (5)

- i. Transgenic raw potatoes generate the immunity against disease.
a) Plague b) Cholera c) Leprosy d) TB
- ii. At In Andhra Pradesh power plant based on natural gas has been installed.
a) Samarakota, b) Hyderabad, c) Vishakha Patnam, D) Kakinada,
- iii. on the inner surface of fallopian ducts push the egg towards uterus.
a) Cilia b) Tentacles c) Flagelia d) Fibres
- iv. Keeping ready is practice to check the preparedness of facing the disaster.
a) First aid b) Mock Drill c) Ambulance d) Fire Brigade
- v. influence is stronger in case of adolescents.
a) Teacher's, b) Father's c) Relative's d) Peer Group

(B) Answer the following questions. ()

- i. Considering the relationship in the first pair. Complete the second pair.
Skin, Keratin :: Blood :
- ii. Find the odd man out :-
Frog, Toad, Salamander, Tortoise
- iii. Which type of disasters are described in the following statement ?
The huge waves in Chennai engulfed many human lives in December 2004.
- iv) Name the process in which there is formation of glucose from non-carbohydrate source.

iv. Match the pairs :

Column "A"

i) Indeterminate

Column "B"

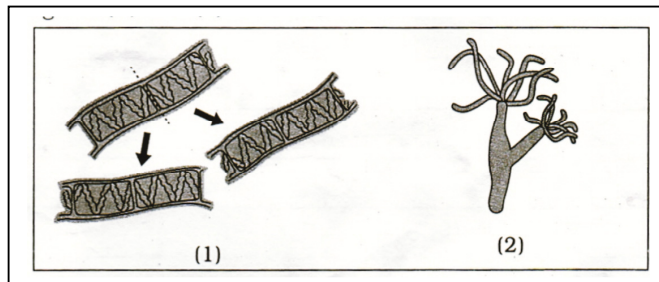
1. Tiger, Lion
2. Giant Squirrel / Shekhru
3. Red Panda, Musk Deer

Q.2. (A) Give scientific reasons. (Any two) (4)

- i) Destroying trees is to destroy everything.
- ii) Body temperature of reptiles is not constant.
- iii) Hydroelectric power generation is advantageous.

(B) Answer the following question. (Any three) (6)

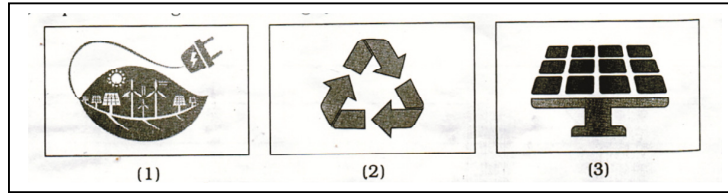
- i. Write a short note on sacred grove ?
- ii. What are the effects of alcoholism ?
- iii. What are edible vaccines ?
- iv. Draw a flow chart showing energy transformation in thermal power point ?
- v. Identify the living organism and write their type of reproduction shown in figures.
(1) & (2)



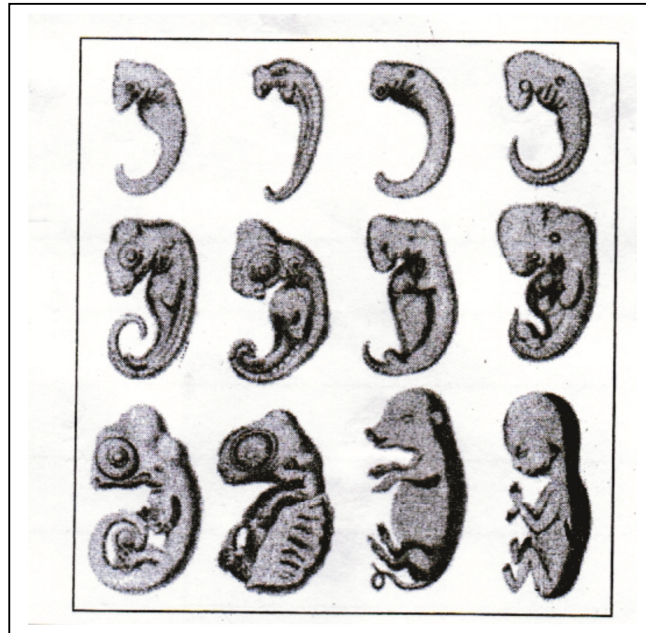
Q.3. Answer the following questions. (Any five) (15)

- i) **Answer the following questions.**
 - a) What is Biotechnology ?
 - b) Give one use of Biotechnology ?
 - c) Write one commercial use of Biotechnology ?
- ii) Write the process of cheese making.
- iii) Write the uses of stem cells.
- iv) Explain glycolysis in details.
- v) Distinguish between mitosis and meiosis.
- vi) What are the modes of reproduction in the following organisms ?
 - i) Mucor ii) Bryophyllum iii) Paramecium

vii) Explain meaning of the following symbols :



viii) Observe the picture and answer the following questions :



- 1) Which evidence of evolution is shown in this picture ?
- 2) What can be explained with this evidence ?
- 3) Give one more example of evidences of evolution ?

Q.4. Answer any one of the following. (Any one) (5)

- i) Give the functions of the following
 - a) Testis
 - b) Scrotum
 - c) Seminal Vesicles
 - d) Uterus
 - e) Fallopian Tubes

- ii) Describe different ways in which cyber crimes are performed.
