CAREER POINT

MOCK TEST PAPER

CENTRAL BOARD OF SENIOR SECONDARY EXAMINATION

SET-1

Series CPC

Code No. 16/1/B

Roll No. | | | | | | | | |

Candidates must write the Code on the title page of the answer-book

- Please check that this question paper contains 4 printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate
- Please check that this question paper contains **30** questions.
- Please write down the Serial Number of the question before attempting it.
- 15 minute time has been allotted to read this question paper. The students will read the question paper only and will not write any answer on the answer-book during this period.

BIOLOGY

Time allowed: 3 hours **Maximum Marks : 70**

P.T.O

General Instructions:

1. *All questions are compulsory.*

2. *This questions paper consists of four Sections A, B, C and D. Section A contains 8 questions of one mark each, Section B is of 10 questions of two marks each, Section C is of 9 questions of three marks each and Section D is of 3 questions of five marks each.*

3. *There is no overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks and all the three questions of 5 marks weightage. A student has to attempt only one of the alternatives in such questions.*

4. *Wherever necessary, the diagrams drawn should be neat and properly labelled.*

SECTION A

Q.1 Give example of analogues organs. **[1]**

Q.2 Name any two industrially important enzymes. **[1]**

Q.3 Name an immunosuppressive agent. **[1]**

Q.4 A bilobed, dithecous anther has 100 microspore mother cells per microsporangium. How many male gametophytes this anther can produce ? **[1]**

Q.5 Mention one application of pollen bank. How are pollens stored in a bank ? **[1]**

Q.6 What is meant by 10% law ? **[1]**

Q.7 In *Pisum sativum*, which is dominant, inflated pod or constricted pod ? **[1]**

Q.8 Name the cells of immune system that are affected by HIV ? **[1]**

SECTION B

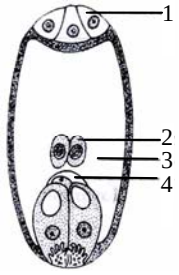
Q.9 Amniocentesis for sex determination is banned in our country. Is this ban necessary ? Comment. **[2]**

Q.10 Explain what is meant by biofortification. **[2]**

Q.11 A human female experiences two major changes, menarche and menopause during her life. Mention the significance of both the events. **[2]**

Q.12 Draw a diagram of fully developed male gametophyte. **[2]**

Q.13 In the given figure of embryo sac label the parts (1), (2), (3) and (4) **[2]**



Q.14 Name any five hybrid varieties of crop plants which have been developed in India. **[2]**

Q.15 Expand CAM. **[2]**

Q.16 Construct a pyramid of biomass starting with phytoplanktons. Label 3 trophic levels. Is the pyramid upright or inverted ? Why **[2]**

Q.17 What happens when a red-coloured homozygous 4 'O' clock plant is crossed with a heterozygous 4 'O' clock plant ? Work out all the genotypes and phenotypes. **[2]**

Q.18 What is contact inhibition ? How does this phenomenon operate in cancer cells ? **[2]**

SECTION C

Q.19 What is Biological evolution based on Darwinism. **[3]**

Q.20 What is GEAC ? What are its objectives ? **[3]**

Q.21 For which variety of Indian Rice, the patent was filed by U.S.A. company ? **[3]**

Q.22 Discuss the advantages of GMOs. **[3]**

Q.23 Mention any two probable reasons for rapid rise of populations in our country from about 350 million at the time of independence to about 1 billion by the year 2000. **[3]**

Q.24 What is interspecific hybridization ? Give one example of a crop in which it is practiced and mention one advantage derived from it. **[3]**

Q.25 What is inbreeding in plants ? What happens to the recessive alleles in this process ? **[3]**

Q.26 Why do generally human males suffer from haemophilia ? Can women also suffer from it ? Explain. **[3]**

Q.27 In garden pea (Pisum sativum), a plant with yellow seeds was crossed with a plant with green seeds. Work out all the possible genotypes and phenotypes of F_1 and F_2 generations. Comment on the pattern of inheritance in this cross. **[3]**

SECTION D

Q.28 Differentiate between diagnostics and therapeutics. Give one example of each **[5]**

Q.29 What is meant by the following : **[5]**

(i) Somatic hybrid

(ii) Micropropagation

(iii) Explant

(iv) Somaclones

(v) Tissue culture

Q.30 Describe the components of an ecosystem. **[5]**