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1B4M18227

(Pages : 2)

Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Fourth Semester B.Sc Degree Examination, March 2018
ZO4C04 – Genetics & Immunology
(2016 Admission onwards)

Max. Time: 3 hours

Max. Marks: 64

Give illustrations and figures wherever necessary

PART A

One word questions. Answer all questions. (Each question carries 1 mark)

1. Name the sex linked bleeder's disease?
2. Give an example of multifactorial disorder.
3. Name the enzyme which mediate the synthesis of nucleic acids?
4. Name the deficiency factor of Haemophilia A.
5. Which human chromosome carries the gene for MHC?
6. Which is the largest human chromosome?
7. Name the first line defence against viral infection.
8. The branch of genetics which deals with science of better living.
9. Name any one auto immune disorder.
10. Who discovered split genes?

(1 x 10 = 10 Marks)

PART B

Short answer question: Answer any seven. (Each question carries 2 marks).

11. What is central dogma of molecular biology?
12. What are plasmids?
13. What is gene therapy?
14. Comment on Junk DNA.
15. What are interferons?
16. What is Bursa of Fabricius?
17. What are adjuvants?
18. What is protein engineering?
19. Explain one gene one enzyme hypothesis with suitable examples.
20. What are Barr bodies?

(2 x 7 = 14 Marks)

PART C

Paragraph questions: Answer any four. (Each question carries 5 marks)

21. Write an account on Amniocentesis.
22. Explain hazards of genetic engineering.
23. Describe briefly the jumping genes.
24. Give an account of vaccines.
25. Write an account of various vectors used in genetic engineering.
26. Describe briefly phenylketonuria.

(4x5=20 Marks)

PART D

Essay Questions. Answer any two.. (Each question carries 10 marks)

27. Write an essay on disease caused by chromosomal mutations.
28. Explain the origin and characteristics of cancer cells.
29. Write brief account on recombinant DNA technology and its application.
30. What are immunoglobulins? Explain the structure and add a notes on its role.

(2 x 10 = 20Marks)

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Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Fourth Semester B.Sc Degree Examination, March 2018
ZO4B04 T – Animal Diversity – Chordata Part II
 (2016 Admission onwards)

Max. Time: 3 hours

Max. Marks: 80

Part A**Answer ALL the following questions: Each question carries 1 Marks**

1. What is the scientific name of Pigeon ?
2. How many cranial and spinal nerves are in Pigeon ?
3. Give the native place of Rhea .
4. How many major air sacs found in pigeon ?
5. What are the ear ossicles ?
6. Name the androgen producing cells in Testis.
7. Give the phalangeal formula of hind limb of *Oryctolagus*.
8. What are arbor vitae ?
9. AV valves connected to papillary muscles by
10. Name the epidermal sheath covering the beak of *Columba*.

(10 x 1=10 marks)**Part B****Answer any TEN questions: Each question carries 2 Marks**

11. Differentiate between mesoarchium and mesovarium.
12. What is panting ? give its significance .
13. Mention about extinct birds .
14. What is pecten ? mention its function .
15. Give the characters of Sphenisciformes .
16. Give desert adaptations of Ostrich .
17. Mention the ventricles of brain in *Columba* .
18. Differentiate between synsacrum and pygostyle ?
19. What are Stringiformes ? Give example.
20. Describe syrinx .
21. Give the names of two flightless birds.
22. What are Wolffian and Mullarian ducts?

(10 x 2=20 marks)

Part C

Answer any FIVE question. Each question carries 6 Marks

23. Describe the important characters of class Mammalia .
24. Explain the skull of *Columba* .
25. Give the evolutionary significance of Archeopteryx .
26. Write notes on Palaeognathe ? Give examples.
27. Explain the structure of Rabbit eye .
28. Explain respiratory mechanism in *Columba* .
29. Describe the structure and fuction of skin in *Oryctolagus* .
30. Write notes on 1. *Phoca* 2. *Phocaena* 3. *Trichechus* 4. *Pteropus* 5. *Physeter* .

(5 x 6 =30 marks)

Part D

Answer any TWO questions. Each question carries 10 Marks

Answer any FIVE question. Each question carries 6 Marks

31. Explain the digestive system of *Oryctolagus* .
23. Describe the important characters of class Mammalia
32. Explain respiration and respiratory mechanism in *Oryctolagus*.
24. Explain the skull of *Columba*.
33. Explain the feathers in *Columba* .
25. Give the evolutionary significance of Archeopteryx .
34. Describe the flight muscles and flight adaptations in *Columba* .
26. Write notes on Palaeognathe ? Give examples.

(2 x 10= 20 marks)

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