

DEPARTMENT OF ZOOLOGY
QUESTION BANK
CLASS:- +3 1ST YEAR SCIENCE
SUBJECT:- ZOOLOGY HONOURS (1st SEMESTER)
PAPER :- CORE- I

Part-I

Fill in the blanks:-

[Each question carry 1 mark]

1. Paramecium belongs to Kingdom.
2. Osmoregulation takes place to kingdom.
3. is known as temporary stomach of body.
4. In amoeba, locomotion takes place by
5. Plasmodium belongs to Class.
6. In protozoa , excretion takes place through process.
7. is the infective stage of plasmodium vivax.
8. is the feeding stage of plasmodium vivax.
9. Plasmodium is a parasite.
10. In euglena , nutrition is
11. is the vector of P. Vitax.
12. Is the infective stage of E. Histolytic.
13. Amoebic dysentery is caused by
14. Cerebral malaria is caused by
15. Metronidazole is used to treat disease.
16. Chloroquine is used to treat disease.
17. In amoeba , nutrition is type.
18. Multiple fission of asexual reproduction is seen in
19. Diatomaceous earth is formed by
20. In slime mould , type of nutrition is seen.
21. is known as “ slipper shaped animalcule”.
22. is a dimorphic protozoa.
23. Canal system is seen in phylum.
24. Siliceous spicules are seen in class of phylum porifera.
25. is known as “venus flower basket”.
26. is the fresh water sponge.
27. In sponge, type of body wall is seen.
28. Euspongia belongs to phylum.
29. Calcareous spicules made up of
30. is the fresh water coelenterate.
31. Nematoblast cells are seen in phylum.
32. is known as “ Portuguese man of war”.
33. Aurelia belongs to class.
34. Polymorphism is the significant characteristics of phylum.

35. Atoll reef is seen in
36. Budding is seen in
37. is the feeding stage of coelenterate.
38. zooids of coelenterate acts as offence and defence organ
39. is the habitat of fasciola.
40. Flat worms belongs to class.
41. Taenia belong to class.
42. The embryo of taenia sodium lives in pig body is known as
43. proglottid of taenia continuous branched uterus.
44. Faswola causes disease in man.
45. Round worms belongs to phylum.
46. is a pseudocoelomate animal.
47. Scientific name of filarial worm is
48. is the vector of filarial worm.
49. is the infective stage of filarial worm.
50. Heterazan drug is used to treat disease in man.
51. organ is the habitat of ascaris.

PART II

Short Answer Type (Answer Within 2 To 3 Sentences)

[Each Question Carry 1 ½ Mark]

1. State three characters of kingdom protista.
2. Name different hosts of P.vitax.
3. Name different hosts of F.hepatica.
4. Name different hosts of T. Sodium.
5. Name different hosts of W. Bancrofti.
6. What is the function of flagellum in euglena ?
7. What is the function of trichocyst in paramecium ?
8. What is the function of food vacuole ?
9. What is function of contractile vacuole ?
10. State 3 characters of class ciliate.
11. State 3 characters of Class- sarcodina.
12. State 3 characters of Class- sporozoa.
13. State 3 characters of Class- flagellate.
14. State 3 characters of phylum porifera.
15. State 3 characters of Class- Calcarea.
16. State 3 characters of Class- Demospongiac.
17. State 3 characters of canal system.
18. State different types of spicules in sponges.
19. What is coenocytes cell.
20. What is pinacocyte cell ?
21. What is spongocoel ?
22. What is Apopyle ?
23. What is Prosopyle ?
24. What is function of incurrent canal ?
25. State 3 characters of phylum enidaria .

26. State 3 characters of Ctenophora.
27. State 3 characters of class Hydrozoa.
28. State 3 characters of Class scyphozoa.
29. State 3 characters of anthozoa.
30. What is the function of chid oblast cell.
31. What is polymorphism ?
32. What is mutagenesis ?
33. What is the function of dactyl zooids ?
34. What is coral ?
35. State 3 importance of coral.
36. What is coral reef ?
37. State 3 characters of phylum- platyhelminthes .
38. Sate 3 importance of coral reef ?
39. Name different hosts of F. Hepatica.
40. State three characters of cestoda
41. State different types of proglottids.
42. State 3 preventive measures of fascioliasis.
43. State 3 preventive measures of tacniasis.
44. State 3 symptoms of fascioliasis.
45. State 3 symptoms of tacniasis.
46. State three general charactersof phy- memathelminthes.
47. State 3 symptoms of ascariasis.
48. State 3 preventive measures of ascariasis.
49. State 3 symptoms of filariasis.
50. State 3 preventive measures of filariasis.

Part III

[Each question carry 2 ½ mark]

WRITE SHORT NOTES ON :-

- | | |
|---|----------------------|
| 1. Protista | 15. Reproduction |
| 2. Protozoa | 16. Minuta form |
| 3. Diatom | 17. Magna form |
| 4. Slime mould | 18. Binary fission |
| 5. Ciliate | 19. Multiple fission |
| 6. Flagellata | 20. Conjugation |
| 7. Sarcodina | 21. Autogamy |
| 8. Sporozoa | 22. Syngamy |
| 9. Structure of Euglena (Draw a labelled diagram) | 23. Porifera |
| 10. Structure of Paramecium (Draw a labelled diagram) | 24. Spicules |
| 11. Structure of sporozoite. | 25. Calcarea |
| 12. Pseudopodia | 26. Conidaria |
| 13. Flagella | 27. Ctenophore |
| 14. Locomotion | 28. Hydrozoa |
| | 29. Scyphozoa |

- | | |
|--|--|
| 30. Importance of coral reef | 41. Hexacanth embryo. |
| 31. Medusa | 42. Structure of taccia sodium (labelled diagram) |
| 32. Poly p | 43. Cysticercus larva |
| 33. Zooids | 44. Pathogenicity of T. Sodium. |
| 34. Platyhelminthes | 45. Nematode. |
| 35. Cestoda | 46. Rhabditi form larva |
| 36. Structure of miracidium larva (labelled diagram only.) | 47. Microfiliariac |
| 37. Characters of redia larva. | 48. Difference between male ascarius & female ascarius . |
| 38. Characters of sporocyst larva. | 49. Parasitic adaptation |
| 39. Structure of cercaria larva (labelled diagram) | 50. Pathogenicity of w. Bancrofti. |
| 40. Pathogenicity of F. Hepatica. | |

Part iv

[Each question carries 8 marks]

Long answer type:-

1. Describe various general characteristics of kingdom protista.
2. Classify protozoa up to classes.
3. Describe structural peculiarities of euglena.
4. Describe life cycle of P. Vitax.
5. Describe life cycle of E. Histolytica.
6. Describe locomotion in protista.
7. Describe reproduction in protista
8. Describe syconood type of canal system.
9. Describe leuconoid type of canal system
10. Classify porifera up to classes.
11. State general characters and evolutionary significance of ctenophore.
12. Classify chidaria upto classes.
13. Describe mutagenesis in obelia.
14. Describe various types of coral reefs with their importance.
15. Classify platyhelminthes upto classes.
16. Describe life cycle of F. Hepatica.
17. Describe life cycle of T. Sodium.
18. State general characteristics of nemathelminthes.
19. State devt of ascarus.
20. State parasitic adaptation in helianthus.

QUESTION BANK
CLASS:- +3 1ST YEAR SCIENCE
SUBJECT:- ZOOLOGY HONOURS (1st SEMESTER)
PAPER :- CORE-2

PART-I (OBJECTIVE TYPE)

[Each Question Carry 1mark]

1. Study of environment is known as
2. is known as father of ecology.
3. Study of single animal in relation to its environment s known as
4. Study of a group of animal of diffident species in relation to its envt. Is known as.....
5. Study of interrelation between living organism and their a biotic environment is known as
6. first coined the term “Eco system”.
7. In an ecosystem , secondary consumers occupy tropic level.
8. Microbes acts as in an ecosystem.
9. The process of eating a being eaten s known as
10. Linkage of various food chans n a web like manner is known as
11. bacteria fixes nitrogen in the root nodules of leguminous plant.
12. Tertiary consumers are type of carnivores.
13. Nitrogen is present in atmosphere n%.
14. helps in conversion of nitrate into nitrate.
15. Wild life protection act established in
16. plants are in different to temperature.
17. The optimum temperature for survival of large no. Of organism is

18. The response of plant to rhythmic diurnal fluctuation in temperature is known as
19. Reproductive capacity of an animal is known as
20. The relation between seasonal changes of body temperature and body forms known as
21. The largest and most self-sufficient biological system is known as
22. Law of tolerance is discovered by
23. Grazing food chain depends upon for energy.
24. Detritus food chain depends upon for energy.
25. A no. Of individuals of same species living in a particular area in a particular time period is known as
26. A no. Of individuals of different species living in a particular area in a particular time period is known as
27. Interaction of individuals within a single species is known as
28. Interactions between individuals of different species of population of an ecosystem is known as
29. The habitual occurrences of the individuals of a species in large groups for various purpose is known as
30. Sterile female member of the honey bee colony is known as
31. A deployed fertile female member of the honey bee colony is known as
32. An association in which an individual increases the welfare of another individuals of its species at the expense of its own welfare is known as
33. occurs in peck orders of chickens & pigeons.
34. The ability of a given individual to influence the movement individual to influence the movement pattern of the group is known as

35. An area in which the animal normally lives is known as
36. An area in which the resident enjoys priority of access to limited resources that he or she does not enjoy in other area is known as
37. Transmission and exchange of information among the members of species is known as
38. An individual which emits a signal is known as
39. An individual which receives a signal and alters its behaviour is known as
40. The chemicals which are related by one species and affect another are known as
41. is an inter specific interaction in which larger members eat up their own species.
42. Relationship between two species of a population which interact but don't affect each other is known
43. The association between two different species of a population in which only one gets benefit and neither is harmed is known as
44. A succession which starts on bare rock is called
45. A succession which starts on dry habitat is called
46. The vertical stratification of vegetative layers is primarily determined by the of their individual plants.
47. The mean of the 10 values is 20. If we add a value 10 in each observation then mean for the new value will be
48. Square root of the mean of square deviation is known as
49. is an interaction between population in which the predator feeds on the prey.
50. is an insectivorous plant.

Part –ii

Short answer type :-

(Answer within 2 to 3 sentences) [each question carry 1 ½ mark]

1. Define ecology
2. Define ecosystem
3. Define autecology.
4. Define synecology.
5. Define population
6. Define Hexicology.
7. What is Biome.
8. Define liebig's law of minimum.
9. Define schafford's law of maximum.
10. Define food chain.
11. Define food web.
12. What is entropy
13. Define second law of thermo dynamics.
14. What is 10% law.
15. What is trophic level ?
16. What is the implication of an inverted pyramid ?
17. What is photoperiodism ?
18. What is fecundity ?
19. What is berger's rule ?
20. What is allen's rule ?
21. What is cyclomorphosis ?
22. Write the characteristics of r- selected species ?
23. What is wild life ?
24. What is in site cousevation ?
25. What is ex situ cousevation ?

26. Make list of density independent factors for population regulation.
27. Make a list of density dependent factors for population regulation.
28. Define species richness.
29. What is edge effect ?
30. What is data ?
31. What is Histogram ?
32. What is Polygon ?
33. What is Hypothesis ?
34. Define natality ?
35. Define mortality ?
36. What is life table ?
37. What is age ratio ?
38. What is sex ratio ?
39. What is dispersion ?
40. What is exponential growth ?
41. What is logistic growth ?
42. What is Gaus's principle ?
43. Define proto co-operation ?
44. Define commensalism ?
45. Define altruism ?
46. What is home range ?
47. What is parasitism ?
48. What is predation ?
49. What is ecological succession ?
50. What is variance ?

Part –iii

[Each question carry 2 ½ mark]

Write short notes on followings .

1. Explain the effect of temperature of reproduction of animals.
2. Explain the effect of light on reproduction of animals .
3. Schematically depict the steps of nitrogen cycle.
4. Schematically depict the steps of phosphorous cycle.
5. What is importance of producer in an ecosystem ?
6. What is the importance of consumer in an ecosystem ?
7. What is the importance of decomposer in an ecosystem ?
8. What is the difference between grazing food chain and detritus food chain?
9. Schematically depict the diagram of food web in pond ecosystem.
10. What is the difference between Autecology and Synecology.
11. What is liebgs law of minimum.
12. What is schafford's law of maximum ?
13. What are the different types of survivor ship curves ?
14. What is the difference between logistic and exponential growth ?
15. Derive equation of natality.
16. Derive equation of Mortality.
17. What are causes of wild life loss ?
18. What are the preventive measures for conservaton of wild life ?
19. What is wild life act?
20. Write the methods of dispersion .
21. Explain Gause's principle.
22. What is R & K strategy.
23. What are the causes of population growth ?
24. Explain inter specific population interaction.
25. What is dominance hierchy ?
26. Explain characteristics of commensalism with example .

27. Explain characteristics of parasitism with example.
28. Explain proto co-operation with example.
29. What is pheromone?
30. What is allomone ?
31. What is characteristics of a community ?
32. What are the characteristics' of climax community ?
33. What are the different layers of vertical stratification in a tropical forest?
34. What are the characteristics' of pioneer community ?
35. What is primary succession ?
36. What is secondary succession ?
37. What is autogenic succession ?
38. What is allogenic succession ?
39. Explain species richness ?
40. Explain ecotone.
41. Explain edge effect .
42. What are the theories of climax community ?
43. What is frequency polygon ?
44. What are characteristics of mean ?
45. What are merits of mean ?
46. What are demerits of mean ?
47. What are characteristics of median ?
48. What are the merits of median ?
49. What are the demerits of median ?
50. What is null hypothesis ?
51. What is the difference between mean deviation & standard deviation ?
52. What is student's 't' test ?

Part –iv

[each question carry 8 mark]

Long answer type question

1. What is Eco system ? describe structure of an ecosystem ?
2. What is Ecosystem ? describe various functional aspects of an ecosystem?
3. What is ecosystem ? Give an example of pond ecosystem ?
4. What s ecosystem ? give an example of a terrestrial ecosystem ?
5. Point out the differences among grazing food chain and detritus food chain with suitable examples ?
6. What is energy flow ? describe the pattern of energy flow through an ecosystem ?
7. What is energy flow ? Describe various models of energy flow.
8. What are the importance of wild life ? how to conserve them ?
9. Explain light as an ecological factor ?
10. Explain temperature as an ecological factor ?
11. Explain laws of limiting factors with suitable examples ?
12. What is population ? describe various characteristics of population ?
13. Give an account of different types of inter specific interaction found among the members of population .
14. Give an account of different types of density dependent factors.
15. Give an account of different types of density in-dependent factors.
16. Explain Gaues's principle with laboratory & field examples.
17. Discuss ecological succession in a hydric environment.
18. What is measures of central tendency? Describe various types of measures of central tendency with examples.
19. Describe the formula for standard deviation . what are the merits & demerits of standard deviation ?

QUESTION BANK
CLASS:- +3 1ST YEAR SCIENCE
SUBJECT:- ZOOLOGY HONOURS (2ND SEMESTER)
PAPER :- CORE- 3
Non-Chordates- II , Coelomates

Part –i

[each question carry 1 mark]

Fill in the blanks :-

1. Segmented worms belongs to phylum .
2. Linear repetition of similar body parts is known as
3. The outer most covering of body of annelids is known as
.....
4. type of blood vesicular system is seen in annelids .
5. Locomotion in annelid takes place by
6. Digestion is in annelids .
7. The respiratory pigment present in blood of annelid is
.....
8. Excretion in annelids takes place by
9. Trochophore larva is seen in phylum.
10. Earthworm belongs tophylum.
11. Leech belongs to phylum.
12. Aphrodite belongs to class.
13. Earthworm belongs to class.
14. Leech belongs to class
15. Polygordius belongs to class.
16. Coelom is present between body wall and
17. Pseudocoelomate animals belonging to phylum.
18. fluid helps in osmoregulation ?

19. Animals having segmented appendages belongs to
phylum.
20. is the largest phylum of invertebrate groups.
21. Compound eyes are seen in phylum.
22. Locomotion takes place by in arthropods.
23. Excretion takes place by in arthropods.
24. Respiration takes place by in arthropods.
25. type of coelom is seen in arthropods.
26. Dragonfly belongs to phylum.
27. Cockroach belongs to class.
28. Prawn belongs to class.
29. Bedbug belongs to class.
30. Body covering of arthropods is known as
31. Scolopendra belongs to class.
32. Green glands are seen in phylum.
33. is the "connection link" between annelid &
arthropods.
34. Peripatus belongs to phylum.
35. Termites belongs to order.
36. Marriage in air is known as flight.
37. The nests of termites are known as
38. Mouth parts are type in termites.
39. are commonly known as white ants.
40. Change of form or structure of an animal during the course of its life
cycle is known as
41. The process by which rigid cuticle is cast off is known as
.....
42. Larva of honey bee is known as
43. Soft bodied animals belonging to phylum.
44. Osphradium acts as sensory organ in phylum.
45. In phylum mollusca type of larva is seen.
46. Spiny skinned animal belongs to phylum.

47. Starfish belongs to phylum.
48. Tube feet are seen in phylum.
49. Water vascular system is the distinguish feature of phylum.
50. Sea-lily belongs to class.

Part –ii

[Each question carry 1 ½ mark]

Short answer type :-

Answer within 2 to 3 sentences

1. Define annelid.
2. Define coelom.
3. Define excretion.
4. What is mosaic vision ?
5. What is superposition image ?
6. What is apposition image ?
7. What is haemocoel.
8. Define arthropods ?
9. What is swarming ?
10. What is nuptial flight ?
11. Define social insect.
12. Define arthropods.
13. Define metamorphosis ?
14. What is moulting ?
15. What is ecdysis ?
16. What is pupa ?
17. What is connecting link ?
18. State 3 annelidan characters of peripatus.
19. State 3 arthropodan characters of peripatus .
20. State 3 characters of social insect.
21. Define mollusca.

22. Define torsion.
23. Define detorsion ?
24. State 3 characters of class – polycipoda.
25. State 3 characters of class- insceta.
26. State 3 characters of class- crustacean.
27. State 3 characters of class – oligochacta.
28. State 3 characters of class – polychaeta.
29. State 3 characters of class – hirudinea.
30. What is tubefeet ?
31. Define enhinodermata?
32. What is madreporte ?
33. What is pollian vesicle?
34. State 3 characters of crinoidea.
35. State 3 characters of class- echnoidea.
36. State 3 characters of class – ophuroidea.
37. What do you mean by water- vascular system.
38. State 3 importance of trochephore larva.
39. State 3 importance of glochidium larva.
40. State 3 characters of ophiopluteus larva.
41. State 3 characters of echinopluteus larva.
42. State 3 characters of
43. Define respiration.
44. What is ctenidium ?
45. What is secondary grill .
46. What is ametabolous metamorphosis.
47. What is hemimetabolous metamorphosis ?
48. What is mantle .
49. State function of soldier ?
50. State functions of workers ?
51. State 3 characters of chordates.

Part –iii

[each question carry 2 ½ mark]

Write short notes on :-

1. Explain general characters of phylum annelida.
2. State significance of coelom.
3. Explain metamerism.
4. Schematically depict the diagram of nephridia ?
5. State general characters of phylum arthropoda ?
6. State characters of class – oligochaeta.
7. State characters of class – polychaeta.
8. State characters of class – hirudinea.
9. State characters of class – crustacea.
10. State characters of class- insecta .
11. Explain importance of mosaic vision.
12. Explain various types of metamorphosis.
13. Schematically depict the diagram of a compound eye.
14. What is the difference between mechanism of a simple eye and a compound eye.
15. Explain respiration in arthropoda.
16. Explain social life in honeybee.
17. Explain social life in termite ?
18. State general characters of onychophora.
19. State phylogenetic position of peripatus .
20. Explain evolutionary significance of onychophora.
21. Explain significance of metamorphosis ?
22. Explain significance of crustacean larva.
23. Explain different types of metamorphosis ?
24. State general characters of phylum mollusca.
25. Explain importance of torsion in gastropoda.
26. Explain respiration in mollusca.
27. Explain significance of detorsion.

28. Explain evolutionary significance of trochophore larva.
29. Explain general characters of phylum mollusca.
30. Explain characters of class – polychaeta.
31. State function of nephridium.
32. Schematically draw the diagram of parapodium.
33. Explain pallial respiration.
34. Schematically draw the diagram of a nephridium .
35. Explain general characters of echinodermata .
36. State characters of class- ophiuroidea.
37. State characters of class- crinoidea.
38. State characters of class- asterozoa.
39. Explain significance of water – vascular system .
40. Depict the diagram of ophiopluteus larva.
41. Depict the diagram of echinopluteus larva.
42. Depict the diagram of brachiolaria larva.
43. Depict the diagram of diopleurula larva.
44. State significance of larval forms of echinodermata.
45. State affinities of echinoderms with that of chordates.
46. State functions of tube feet .
47. What is pedicellaria ?
48. What is radial canal ?
49. What is ambulacral groove ?
50. What is significance of caterpillar larva.

Part –iii

[each question carry 8 marks]

Long answer type :-

1. Classify annelid up to classes.
2. What is coelom ? Describe the process of evolution of coelom in annelid.
3. What is metamerism ? Describe various types of metamerism .
4. What is excretion ? Explain the process of excretion found in different classes of annelid.

5. Classify arthropoda up-to classes.
6. Give an account of vision in arthropoda.
7. Give an account of respiration in arthropoda.
8. What is metamorphosis ? describe various types of metamorphosis found in arthropoda ?
9. State various characters of a social insect with reference to honey bee ?
10. State various characters of a social insect with reference to termite ?
11. Describe structural peculiarities of peripatus ?
12. Describe affinities & phylogenetic position of peripatus ?
13. Classify mollusca up-to classes.
14. Give an account of respiration in mollusca ?
15. What is torsion ? Describe the mechanism of formation of torsion in gastropoda.
16. Describe evolutionary significance of trochophore larva.
17. Classify echinodermata up-to classes.
18. Describe water – vascular system in starfish.
19. Give an account of larval forms of echinodermata.

QUESTION BANK
CLASS:- +3 1ST YEAR SCIENCE
SUBJECT:- ZOOLOGY HONOURS (2ND SEMESTER)
PAPER :- CORE- 4 (Cell biology)

FILL IN THE BLANKS
 CARRY 1 MARK]

[EACH QUESTION

1. Primitive nucleus is seen in type of cell.
2. Good nucleus is seen in type of cell .
3. Cyanobacteria belongs to cell.
4. Paramecium belongs to cell.

5. is non- living outside the host but living side host body.
6. is the smallest known prokaryotes.
7. An organism which is smaller than virus but without a capsid is known as
.....
8. An infectious protein particle without DNA or RNA is known as
9. Lipid bilayer model was discovered by
10. Unit membrane model was discovered by
11. Sandwich model of P.M was discovered by
12. discovered fluid mosaic model of P.M.
13. The process by which substances move from higher conc region to lower conc. Region without help of energy is known as
14. The process by which substances move from lower conc. Region to higher conc. region with the help of energy is known as
15. The process by which solid substances pass into cell is known as
.....
16. The process by which cells drink liquid food material is known as
.....
17. substances pass into the cell through facilitated diffusion.
18. is a process by which material is transported into cell from outside.
19. is a process by which undigested waste materials are removed from the cell to outside .
20. helps in connecting cell walls of two adjacent cells.
21. is other wise known as terminal bar.
22. The plasma membranes of adjacent cells lie touching each other at
..... junction.
23. junction helps in preventing free passage of substances to and from the cell lumen.
24. are disc shaped or button shaped adhesive junction which helps in adhering cell to each other .
25. Through junctions ions and small molecules of various metabolites flow from cell to cell.
26. ions regulate the permeability of gap junction channels.
27. is a three – dimensional network of filamentous proteins present in the cytosol of all eukaryotic cells.
28. helps in movements of lilia as well as flagella.
29. Labile microtubules are easily disrupted by treatment with

30. Microtubules are formed of proteins.
31. The fibrillar structures found in all eukaryotic cells are known as
32. Intermediate filaments are formed of protein .
33. is known as “traffic police” of cell .
34. helps in transportation of materials throughout the cell.
35. is known as “suicide bag” of cell.
36. first discovered lysosome .
37. is a membrane labilizer.
38. is known as “power house” of cell.
39. is known as “energy currency” of cell.
40. Mitochondria was first coined by
41. discovered mitochondria first.
42. The term peroxisome was first coined by
43. Peroxisomes contain energy.
44. Peroxisomes without nucleoid are called as
45. In green plants performs photo respiration.
46. is known as “ heart of cell”
47. first discovered unclous.
48. is other wise known as desmosomes ?
49. Nucleolus was first discovered by
50. helps in transmission of hereditary characters .
51. In type of cell division chromosome number is reduced to half in the daughter cells.

Part –ii

[answer within 2 to 3 sentences]

[each question carry 1 ½ mark]

Short answer type:-

1. Define prokaryotes .
2. Define eukaryotes.
3. Define nucleoid.
4. Define plasmid.
5. Define mesosomes.

6. What is virus ?
7. What is viroid?
8. What is mycoplasma ?
9. What is prions ?
10. What is unit membrane ?
11. What is extrinsic protein ?
12. What is intrinsic protein ?
13. What is micelle ?
14. What is passive diffusion ?
15. What is active transport ?
16. What is facilitated diffusion ?
17. What is simple diffusion ?
18. What is cytoskeleton ?
19. What is cell junction ?
20. What is tubulin ?
21. What is action ?
22. What is microfilament ?
23. What is microtubule ?
24. What is intermediate filament ?
25. What is cisternac ?
26. What is tubule ?
27. What is vescicle ?
28. What is golgi apparatus ?
29. What is lysosome ?
30. What is cristac ?
31. What is ATP ?
32. What is F. Particle ?
33. What is end symbiotic hypothesis ?
34. What is chemi – osmotic hypothesis ?
35. Define peroxisomes ?
36. What is NADH.
37. What is FAD ?
38. Define nucleus ?
39. Define nuclear envelope ?
40. Define chromosome ?
41. Define nuclear pore complex ?
42. Define nucleolus ?

43. What is euchromatin ?
44. What is heterochromatin ?
45. Define mitosis ?
46. Define meiosis ?
47. What is synaptonemal complex ?
48. What is crossing over ?
49. What is cell cycle ?
50. What is CAMP ?

Part – iii

[each question carry 2 ½ mark]

Short question :- Answer within 3 to 4 sentences

1. State characters of a prokaryotic cell ?
2. State characters of an eukaryotic cell ?
3. Explain non- living properties of virus ?
4. Explain living properties of virus ?
5. Explain properties of virus ?
6. Explain structure of mycoplasma ?
7. Explain properties of prions.
8. Explain lipid bilayer model of plasma membrane.
9. Explain unit membrane model of plasma membrane.
10. Explain sandwich model of plasma membrane .
11. Explain micellar model of P.M.
12. Explain fluid mosaic model of P.M
13. Explain simple diffusion process.
14. Explain facilitated diffusion process .
15. What is cell junction ?
16. Explain functions of tight junction .
17. Explain functions of Gap junction.
18. Explain functions of desmosomes.
19. Explain functions of microtubules.
20. Explain functions of microfilaments.
21. Explain functions of intermediate filament.
22. Explain functions of RER.
23. Explain functions of SER.
24. Explain functions of Golgi complex.

25. Depict the diagram of a mitochondrion.
26. Depict the diagram of an oxysome.
27. Explain functions of lysosomes.
28. What is phagosome.
29. What is secondary lysosome ?
30. What do you mean by membrane labilizer .
31. What do you mean by membrane stabilizer.
32. Explain semiautonomous nature of mitochondria.
33. Explain functions of peroxisomes.
34. Depict the structure of nucleous .
35. Explain functions of nucleus.
36. Explain functions of nuclear envelope.
37. Explain functions of nucleolus ?
38. What is nucleolar organizer region ?
39. Depict the diagram of nuclear pore complex.
40. What is nucleosome ?
41. Explain chromosomal behaviour during prophase of mitosis.
42. Explain chromosomal behaviour during metaphase of mitosis.
43. Explain chromosomal behaviour of leptotene stage.
44. Explain chromosomal behaviour during pachytene stage ?
45. Explain significance of mitosis.
46. Explain significance of meiosis .
47. What is interphase ?
48. What is synapsis ?
49. Schematically depict the diagram of cell cycle.
50. Explain the role of CAMP

Part- iv

Long answer type:-

1. Describe structure & function of a prokaryotic cell.
2. Describe structure & function of an eukaryotic cell.
3. Describe various models of plasma membrane with suitable diagrams.
4. Describe the mechanism of transport of substances across the membrane.
5. What is cell junction give an account of various types of cell junction ?

6. Describe structure & function of microtubules.
7. Describe structure & function of endoplasmic reticulum.
8. Describe structure & function of Golgi apparatus ?
9. Describe structure & function of lysosomes.
10. Describe structure & function of mitochondria.
11. Give an account of a respiratory chain.
12. Describe structure & function of nucleus.
13. Describe structure & function of a nucleolus.
14. Explain behaviours of chromosomes seen during mitosis .
15. Explain behaviours of chromosomes seen during meiosis.
16. Describe various stages of cell cycle and discuss how to regulate it.
17. Explain mechanism of endosymbiotic hypothesis.
18. Explain mechanism of chemiosmotic hypothesis.
19. Describe structure & function of NPC.
20. Give an account of structure & chemical composition of chromatin.