

Roll No.

Question Booklet Number

O. M. R. Serial No.

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M. Sc. (Fourth Semester)
(NEP) EXAMINATION, 2025-26
ZOOLOGY

(Clinical Parasitology) (Elective)

Paper Code							
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Questions Booklet
Series

A

Time : 1:30 Hours]

[Maximum Marks : 75

Instructions to the Examinee :

1. Do not open the booklet unless you are asked to do so.
2. The booklet contains 100 questions. Examinee is required to answer 75 questions in the OMR Answer-Sheet provided and not in the question booklet. All questions carry equal marks.
3. Examine the Booklet and the OMR Answer-Sheet very carefully before you proceed. Faulty question booklet due to missing or duplicate pages/questions or having any other discrepancy should be got immediately replaced.

परीक्षार्थियों के लिए निर्देश :

1. प्रश्न-पुस्तिका को तब तक न खोलें जब तक आपसे कहा न जाए।
2. प्रश्न-पुस्तिका में 100 प्रश्न हैं। परीक्षार्थी को 75 प्रश्नों को केवल दी गई OMR आन्सर-शीट पर ही हल करना है, प्रश्न-पुस्तिका पर नहीं। सभी प्रश्नों के अंक समान हैं।
3. प्रश्नों के उत्तर अंकित करने से पूर्व प्रश्न-पुस्तिका तथा OMR आन्सर-शीट को सावधानीपूर्वक देख लें। दोषपूर्ण प्रश्न-पुस्तिका जिसमें कुछ भाग छपने से छूट गए हों या प्रश्न एक से अधिक बार छप गए हों या उसमें किसी अन्य प्रकार की कमी हो, तो उसे तुरन्त बदल लें।

(Remaining instructions on the last page)

(शेष निर्देश अन्तिम पृष्ठ पर)

(Only for Rough Work)

1. Role of mehlis gland is :
 - (A) Lubrication for the passage of eggs
 - (B) Activation of spermatozoa
 - (C) Release of shell globules from vitelline cells
 - (D) All of the above
2. The host and parasite may be associated because the parasite has colonized the host known as :
 - (A) Host switching
 - (B) Phylogeography
 - (C) Phyletic
 - (D) symbiosis
3. Plerocercoids larvae are found in :
 - (A) Cyclopes
 - (B) Fishes
 - (C) Man
 - (D) All of the above
4. Which cestode is classified in pseudophyllideans :
 - (A) *Taenia*
 - (B) *Echinococcus*
 - (C) *Diphyllobothrium*
 - (D) *Avitellina*
5. Non-progenetic metacercariae in which the genitalia anlagen are :
 - (A) Well developed
 - (B) Not developed
 - (C) Less developed
 - (D) None of the above
6. Presence of microvilli is the characteristic of integument of :
 - (A) Nematodes
 - (B) Arthropods
 - (C) Monogenean
 - (D) Cestodes
7. Microtriches helps the parasites to :
 - (A) Maintain the position of parasite in the gut
 - (B) Maintain gravity
 - (C) Maintain oxygen uptake
 - (D) None of the above
8. In which group, birthpore is found in gravid proglottids :
 - (A) cyclophyllidea
 - (B) Pseudophyllidea
 - (C) Both (A) and (B)
 - (D) None of the above

9. Microtriches is covered by a layer of glycocalyx in :
- (A) Nematodes
 - (B) Arthropods
 - (C) Acanthocephalan
 - (D) cestodes
10. In the physiology of parasites, Krebs's cycle occurs in :
- (A) Cytoplasm of cell
 - (B) Golgi body of cell
 - (C) Mitochondria of cell
 - (D) ER of the cell
11. In the process of sclerotization, an enzyme catalyzes the reaction namely :
- (A) Phenolase
 - (B) Amylase
 - (C) Catalyse
 - (D) None of the above
12. The process of quinone tanning in egg shell formation is also known as :
- (A) Parasitocoenosis
 - (B) Sclerotization
 - (C) Both (A) and (B)
 - (D) None of the above
13. In digenea, the egg shell is made up of :
- (A) Phenol
 - (B) Quinone
 - (C) Sclerotin
 - (D) None of the above
14. Which technique is considered as important method in In vitro culture of parasite ?
- (A) CAM culture technique
 - (B) horse culture techniques
 - (C) Both (A) and (B)
 - (D) None of the above
15. The metacercariae whose genital anlagen are already in advanced stage of development known as :
- (A) Cercariae
 - (B) Progenetic metacercariae
 - (C) Non progenetic metacercariae
 - (D) None of the above
16. If any thymocyte express only CD4 or CD8 marker, known as :
- (A) Single positive cell
 - (B) Double positive cell
 - (C) Single negative cell
 - (D) Double negative cell

17. The homogenous light chains secreted by these myeloma tumors are known as :
- (A) Simple proteins
 - (B) Bence jones proteins
 - (C) Complex proteins
 - (D) Conjugated proteins
18. When a parasite may elicit a protection against reinfection, but the parasite itself remain in the host, unaffected by the immune response known as :
- (A) Innate immunity
 - (B) Humoral immunity
 - (C) Both (A) and (B)
 - (D) Concomitant immunity
19. The phenomenon in which the parasites are held in check by the host's immune system and the host is asymptomatic :
- (A) Premunition
 - (B) Parasite mix
 - (C) Population dynamics
 - (D) None of the above
20. Immediate Hypersensitivity is mediated by :
- (A) IgM
 - (B) IgG
 - (C) IgD
 - (D) IgE
21. Which group of parasites show maximum antigenic variations ?
- (A) Nematodes
 - (B) arthropods
 - (C) protozoans
 - (D) cestodes
22. Intradermal test is used in which part of body in parasitic infection ?
- (A) Liver
 - (B) Spleen
 - (C) Skin
 - (D) Viscera
23. Dipstick test is used for the diagnosis of :
- (A) Malaria
 - (B) Schistosomiasis
 - (C) Loaisis
 - (D) Acariasis
24. An antibody molecule consist of :
- (A) 2 light chains and 3 heavy chains
 - (B) 2 light chains and 2 heavy chains
 - (C) One light chain and one heavy chain
 - (D) None of the above

25. On papain digestion, antibody molecule produces :
- (A) two Fab and one Fc fragments
 - (B) two Fab and two Fc fragments
 - (C) one Fab and one Fc fragments
 - (D) two Fab and three Fc fragments
26. Head bulb occurs in :
- (A) Cestodes
 - (B) Trematodes
 - (C) Arthropods
 - (D) Nematodes
27. Lipid metabolism as an energy source has of great importance in :
- (A) Sporocyst
 - (B) Metacercaria
 - (C) Redia
 - (D) Cercaria
28. In the lipid metabolism of a parasite, Beta Oxidation of fatty acid give rise to :
- (A) Acetyl CoA
 - (B) Acetyl CoA, NADH
 - (C) Acetyl CoA, NADH and reduced flavoprotein
 - (D) None of the above
29. Which of the following parasite is very host specific ?
- (A) *Dracunculus medinensis*
 - (B) *Diphyllobothrium latum*
 - (C) *Wuchereria bancrofti*
 - (D) *Taenia solium*
30. Protelian parasitism can be seen in :
- (A) Miracidium larva
 - (B) Cercaria larva
 - (C) Glochidium larva
 - (D) Redia larva
31. The destruction of gonadal tissues by a parasite known as :
- (A) Hypertrophy
 - (B) Toxemia
 - (C) Parasitic castration
 - (D) anaemia
32. Which tapeworm has affinity, about 10-50 times, for vitamin B12 of its host ?
- (A) *Diphyllobothrium latum*
 - (B) *Taenia solium*
 - (C) *Senga*
 - (D) *Cotugnia*

33. When one type of tissue changes into another type without the intervention of embryonic tissue known as :
- (A) Neoplasia
 - (B) Metaplasia
 - (C) Hyperplasia
 - (D) None of the above
34. The example of hypertrophy occurs in :
- (A) *Taenia*
 - (B) *Wuchereria*
 - (C) *Plasmodium*
 - (D) *Loa loa*
35. The phenomenon, where an accelerated rate of cell division take place resulting from an increased level of cell metabolism known as :
- (A) hypertrophy
 - (B) hyperplasia
 - (C) neoplasia
 - (D) metaplasia
36. Which skin test is useful for diagnosis of hydatid disease :
- (A) Casoni's test
 - (B) Schick test
 - (C) Dick's test
 - (D) Tuberculin test
37. The adult worm of *Echinococcus granulosus* contains :
- (A) 3-4 segments
 - (B) 50-100 segments
 - (C) 100-200 segments
 - (D) 1000-2000 segments
38. The process of quinone tanning in egg shell formation is also known as :
- (A) Parasitocoenosis
 - (B) Sclerotinization
 - (C) Both (A) and (B)
 - (D) None of the above
39. In digenea, the egg shell is made up of :
- (A) Phenol
 - (B) Quinone
 - (C) Sclerotin
 - (D) None of the above
40. Which parasite enters into the body of host by piercing the skin ?
- (A) *Plasmodium*
 - (B) *Necator americanus*
 - (C) *Trichuris trichura*
 - (D) *Ascaris*

41. LD bodies are :
- (A) Degenerative scar
 - (B) Special cells in *Leishmania*
 - (C) Amastigotes of *Leishmania* inside RBCs
 - (D) Amastigotes of *Leishmania* inside macrophages
42. *Giardia lamblia* was discovered by :
- (A) William Harvey
 - (B) Linnaeus
 - (C) Robert Koch
 - (D) Anton Von Leeuwenhoek
43. In Man, *Plasmodium* multiply by :
- (A) Gametogony
 - (B) Schizogony
 - (C) Binary fission
 - (D) All the above
44. The infective form of *Entamoeba histolytica* is :
- (A) Quadrinucleate cyst
 - (B) Trophozoite
 - (C) Multinucleate cyst
 - (D) None of the above
45. *Entamoeba gingivalis* dwells in :
- (A) Intestine
 - (B) Hairs
 - (C) Mouth
 - (D) Lungs
46. Vector for Leishmaniasis is :
- (A) Tsetse fly
 - (B) Sand fly
 - (C) House fly
 - (D) Dragon fly
47. Winterbottom's sign occurs in :
- (A) Spleen
 - (B) Liver
 - (C) Lymph nodes
 - (D) Muscles
48. Chagas disease is caused by :
- (A) *Trypanosoma cruzi*
 - (B) *Trypanosoma brucei gambiense*
 - (C) *Trypanosoma rhodesiense*
 - (D) None of the above
49. In the life cycle of *Trypanosoma*, which stage is infective to Tsetse fly ?
- (A) Trypomastigote
 - (B) Metacyclic
 - (C) Short and stumpy
 - (D) None of the above
50. In *Leishmaniasis*, aldehyde test becomes positive after :
- (A) 2 weeks
 - (B) 12 weeks
 - (C) 10 weeks
 - (D) 11 weeks

51. Which animal acts as a vector in the life cycle of *Trypanosoma brucei gambiense* :
- (A) Bugs
(B) Beetles
(C) Tsetse fly
(D) Sand fly
52. In *Schistosomiasis*, the infective larval stage to man is :
- (A) Miracidium
(B) Metacercaria
(C) Cercaria
(D) Redia
53. Gynecophoric canal is found in :
- (A) Female *Schistosoma*
(B) Male *Schistosoma*
(C) Both (A) and (B)
(D) None of the above
54. Exoerythrocytic cycle in *Plasmodium falciparum* is of :
- (A) 9 days
(B) 5 to 6 days
(C) 8 days
(D) 13 days
55. Dum-Dum Fever is caused by :
- (A) *Leishmania tropica*
(B) *Leishmania gerbilli*
(C) *Leishmania donovani*
(D) *Leishmania naiffi*
56. Espundia is caused by :
- (A) *Leishmania hertigi*
(B) *Leishmania braziliensis*
(C) *Leishmania Arabica*
(D) *Leishmania mexicana*
57. *Heterophyes* is a :
- (A) Nematode
(B) Arthropode
(C) Cestode
(D) Trematode
58. Cutaneous Leishmaniasis is also known as :
- (A) Calcutta boil
(B) Mumbai boil
(C) Chennai boil
(D) Delhi boil
59. Which parasite is commonly known as Oriental Lung fluke ?
- (A) *Nanophyetus salmincola*
(B) *Clonorchis sinensis*
(C) *Paragonimus westermani*
(D) None of the above

60. In life cycle of *Paragonimus westermani*, which acts as second intermediate host :
- (A) Snail
 - (B) Fresh water Crab
 - (C) House fly
 - (D) Dragon fly
61. Which trematode has dispensed with any requirement for an aquatic environment at all stages of its life cycle :
- (A) *Dicrocoelium dendriticum*
 - (B) *Fasciola hepatica*
 - (C) *Fasciolopsis buski*
 - (D) None of the above
62. In the life cycle of *Fasciolopsis buski*, which snail genus acts as intermediate host ?
- (A) *Bulinus*
 - (B) *Segmentina*
 - (C) Both (A) and (B)
 - (D) None of the above
63. For *Schistosoma haematobium* which snail spp acts as intermediate host :
- (A) *Biomphalaria*
 - (B) *Oncomelania*
 - (C) *Bulinus*
 - (D) None of the above
64. Swimmer's Itch is caused by :
- (A) *Ascaris*
 - (B) *Necator*
 - (C) *Pediculus*
 - (D) *Trichobilharzia*
65. The most characteristic features of *Hymenolepis nana* is :
- (A) Large number of testes
 - (B) Small number of testes
 - (C) Both (A) and (B)
 - (D) None of the above
66. Which tape worm is commonly known as beef tape worm ?
- (A) *Taenia solium*
 - (B) *Taenia asiatica*
 - (C) *Taenia saginata*
 - (D) *Taenia brauni*
67. Which parasite has bladeliike shape ?
- (A) *Fasciola hepatica*
 - (B) *Heterophyes heterophyes*
 - (C) *Clonorchis sinensis*
 - (D) *Dicrocoelium dendriticum*

68. Which pathological condition is the main feature of *Diphyllobothriasis* :
- (A) Weakness
 - (B) Nausea
 - (C) Both (A) and (B)
 - (D) Megaloblastic anemia
69. Which parasite contain bothria ?
- (A) *Taenia*
 - (B) *Hymenolepis*
 - (C) *Diphyllobothrium*
 - (D) None of the above
70. Birth pore is the characteristic feature of which larval stage ?
- (A) Metacercaria
 - (B) Cercaria
 - (C) Sporocyst
 - (D) Redia
71. In which stage of filariasis, microfilaria are seen in the peripheral blood circulation ?
- (A) Elephantiasis
 - (B) Late adenolymphangitis stage
 - (C) Early adenolymphangitis stage
 - (D) None of the above
72. Best site for biopsy test for the diagnosis of Trichinellosis is :
- (A) Liver
 - (B) Spleen
 - (C) Pancreas
 - (D) Deltoid muscle
73. Which skin test is useful for the diagnosis of Hydatid disease ?
- (A) Tuberculin test
 - (B) Dick test
 - (C) Casoni's test
 - (D) Schick test
74. All float in a saturated salt solution except :
- (A) *Clonorchis sinensis*
 - (B) *Trichuris trichura*
 - (C) Fertilized eggs of *Ascaris*
 - (D) None of the above
75. Alimentary canal is completely absent in :
- (A) Arthropods
 - (B) Trematodes
 - (C) Cestodes
 - (D) Nematodes

76. Which parasite spp. has no intermediate host ?
- (A) *Hymenolepis diminuta*
 - (B) *Taenia solium*
 - (C) *Taenia saginata*
 - (D) *Hymenolepis nana*
77. River blindness is the name of which disease ?
- (A) Onchocerciasis
 - (B) Dracunculiasis
 - (C) Both (A) and (B)
 - (D) None of the above
78. Guinea worm is the common name of :
- (A) *Ancylostoma*
 - (B) *Necator*
 - (C) *Dracunculus*
 - (D) *Strongyloides*
79. In filariasis, which larval stage is infective to man ?
- (A) L1
 - (B) L3
 - (C) L2
 - (D) L4
80. Copulatory bursa is the characteristic features of :
- (A) *Ancylostoma*
 - (B) *Ascaris*
 - (C) *Trichinella*
 - (D) *Wuchereria*
81. In Trichinosis, sylvatic cycle occurs in :
- (A) Tropical zone
 - (B) Sub tropical zone
 - (C) Temperate zone
 - (D) None of the above
82. Alae is concerned with the morphology of :
- (A) Cestodes
 - (B) Trematodes
 - (C) Protozoans
 - (D) Nematodes
83. In filarial worm, female worms are :
- (A) Viviparous
 - (B) Oviparous
 - (C) Ovo-viviparous
 - (D) None of the above

84. Retro infection is found in :
- (A) *Ancylostoma*
 - (B) *Dracunculus*
 - (C) *Brugia*
 - (D) *Enterobius*
85. In *Ascaris*, human beings gets infection through :
- (A) Eggs ingested with raw food and vegetables
 - (B) Through biting
 - (C) Through skin
 - (D) None of the above
86. Which filarial worm can be observed in the eyes of man ?
- (A) *Loa loa*
 - (B) *Onchocerca*
 - (C) *Brugia*
 - (D) *Wuchereria*
87. Pin worm is the common name of :
- (A) *Ascaris*
 - (B) *Fasciola*
 - (C) *Clonorchis*
 - (D) *Enterobius*
88. Calabar swellings are seen in the infection of :
- (A) *Wuchereria*
 - (B) *Acanthamoeba*
 - (C) *Loa loa*
 - (D) *Brugia*
89. In filariasis, which drug is drug of choice ?
- (A) Bayer 205
 - (B) Diethylcarbamazine (DEC)
 - (C) Both (A) and (B)
 - (D) None of the above
90. Presence of blister is the characteristic feature of which disease :
- (A) Loiasis
 - (B) Ascariasis
 - (C) Onchocerciasis
 - (D) Dracunculiasis
91. Lymphocytes represent what percentage of total WBCs :
- (A) 20%-40%
 - (B) 5%-10%
 - (C) 80%-90%
 - (D) 70%-80%

92. Bursa of Fabricius is found in :
- (A) Mammals
 - (B) Amphibians
 - (C) Aves
 - (D) fishes
93. Activated B cells differentiate into effector cells known as :
- (A) Tc Cells
 - (B) Memory cells
 - (C) Both (A) and (B)
 - (D) Plasma cells
94. Class I MHC molecules are expressed by :
- (A) B lymphocytes
 - (B) T lymphocytes
 - (C) All nucleated cells
 - (D) None of the above
95. In *Plasmodium*, which stage is covered by CS antigen ?
- (A) Gametocytes
 - (B) Sporozoites
 - (C) Merozoites
 - (D) None of the above
96. The name of human flea is :
- (A) *Pulex irritans*
 - (B) *Ctenocephalides canis*
 - (C) *Ctenocephalides felis*
 - (D) *Tunga penetrans*
97. Which mosquito is commonly known as Asian Tiger Mosquito ?
- (A) *Anopheles quadrimaculatus*
 - (B) *Aedes albopictus*
 - (C) *Anopheles occidentalis*
 - (D) *Culex pipiens*
98. Proceroid larva develops in :
- (A) Vertebrate host
 - (B) Invertebrate host
 - (C) Both (A) and (B)
 - (D) None of the above
99. *Polystoma integerimum* is a parasite of :
- (A) Old world Reptiles
 - (B) Old world Mammals
 - (C) New world Aves
 - (D) Old world Frogs
100. Monogenoidea are :
- (A) Unisexual
 - (B) Hermaphrodite
 - (C) Both (A) and (B)
 - (D) None of the above

(Only for Rough Work)

4. Four alternative answers are mentioned for each question as—A, B, C & D in the booklet. The candidate has to choose the correct answer and mark the same in the OMR Answer-Sheet as per the direction :

Example :

Question :

- Q. 1 (A) ● (C) (D)
 Q. 2 (A) (B) ● (D)
 Q. 3 (A) ● (C) (D)

Illegible answers with cutting and over-writing or half filled circle will be cancelled.

5. Each question carries equal marks. Marks will be awarded according to the number of correct answers you have.
6. All answers are to be given on OMR Answer Sheet only. Answers given anywhere other than the place specified in the answer sheet will not be considered valid.
7. Before writing anything on the OMR Answer Sheet, all the instructions given in it should be read carefully.
8. After the completion of the examination candidates should leave the examination hall only after providing their OMR Answer Sheet to the invigilator. Candidate can carry their Question Booklet.
9. There will be no negative marking.
10. Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.
11. To bring and use of log-book, calculator, pager and cellular phone in examination hall is prohibited.
12. In case of any difference found in English and Hindi version of the question, the English version of the question will be held authentic.

Impt. : On opening the question booklet, first check that all the pages of the question booklet are printed properly. If there is any discrepancy in the question Booklet, then after showing it to the invigilator, get another question Booklet of the same series.

4. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार सम्भावित उत्तर—A, B, C एवं D हैं। परीक्षार्थी को उन चारों विकल्पों में से सही उत्तर छँटना है। उत्तर को OMR आन्सर-शीट में सम्बन्धित प्रश्न संख्या में निम्न प्रकार भरना है :

उदाहरण :

प्रश्न :

- प्रश्न 1 (A) ● (C) (D)
 प्रश्न 2 (A) (B) ● (D)
 प्रश्न 3 (A) ● (C) (D)

अपठनीय उत्तर या ऐसे उत्तर जिन्हें काटा या बदला गया है, या गोले में आधा भरकर दिया गया, उन्हें निरस्त कर दिया जाएगा।

5. प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
6. सभी उत्तर केवल ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर ही दिये जाने हैं। उत्तर-पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
7. ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।
8. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी OMR Answer Sheet उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें। परीक्षार्थी अपने साथ प्रश्न-पुस्तिका ले जा सकते हैं।
9. निगेटिव मार्किंग नहीं है।
10. कोई भी रफ कार्य, प्रश्न-पुस्तिका के अन्त में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।
11. परीक्षा-कक्ष में लॉग-बुक, कैलकुलेटर, पेजर तथा सेल्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।
12. प्रश्न के हिन्दी एवं अंग्रेजी रूपान्तरण में भिन्नता होने की दशा में प्रश्न का अंग्रेजी रूपान्तरण ही मान्य होगा।

महत्वपूर्ण : प्रश्नपुस्तिका खोलने पर प्रथमतः जाँच कर देख लें कि प्रश्न-पुस्तिका के सभी पृष्ठ भलीभाँति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्षनिरीक्षक को दिखाकर उसी सिरीज की दूसरी प्रश्न-पुस्तिका प्राप्त कर लें।