

Roll No. ....

Question Booklet Number

O. M. R. Serial No.

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**M. Sc. (Second Semester)**  
**(NEP) EXAMINATION, 2025-26**

**ZOOLOGY**

**(Chordata)**

Paper Code							
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Questions Booklet  
Series

**D**

*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. Pharyngeal gill slits function mainly in :
  - (A) Circulation
  - (B) Excretion
  - (C) Digestion
  - (D) Feeding and respiration
2. Endostyle is homologous to :
  - (A) Thyroid gland
  - (B) Liver
  - (C) Pancreas
  - (D) Kidney
3. Body of Balanoglossus is divided into :
  - (A) Head, thorax, abdomen
  - (B) Proboscis, collar, trunk
  - (C) Head and trunk
  - (D) Thorax and abdomen
4. Ostracoderms are :
  - (A) Extinct
  - (B) Living
  - (C) Amphibians
  - (D) Mammals
5. Swim bladder helps in :
  - (A) Buoyancy
  - (B) Digestion
  - (C) Respiration
  - (D) Reproduction
6. Lung fishes show affinity with :
  - (A) Amphibians
  - (B) Reptiles
  - (C) Birds
  - (D) Mammals
7. Amphioxus is also called :
  - (A) Lamprey
  - (B) Lancelet
  - (C) Hagfish
  - (D) Sea cucumber
8. In vertebrates the notochord is replaced by :
  - (A) Vertebral column
  - (B) Skull
  - (C) Brain
  - (D) Cartilage

9. Chordates are :
- (A) Triploblastic
  - (B) Diploblastic
  - (C) Acoelomate
  - (D) Radial
10. Prototheria are :
- (A) Egg laying mammals
  - (B) Marsupials
  - (C) Placental mammals
  - (D) Aquatic mammals
11. Flying mammals belong to order :
- (A) Chiroptera
  - (B) Rodentia
  - (C) Carnivora
  - (D) Primates
12. Mammals possess :
- (A) Hair
  - (B) Mammary glands
  - (C) External ears
  - (D) All of the above
13. The largest living bird is :
- (A) Ostrich
  - (B) Emu
  - (C) Cassowary
  - (D) Kiwi
14. The wishbone in birds is formed by fusion of :
- (A) Clavicles
  - (B) Scapula
  - (C) Coracoid
  - (D) Sternum
15. Feathers evolved mainly for :
- (A) Flight
  - (B) Thermoregulation
  - (C) Display
  - (D) All of the above
16. Birds are believed to have evolved from :
- (A) Amphibians
  - (B) Reptiles
  - (C) Mammals
  - (D) Fishes

17. Warm-blooded vertebrates include :
- (A) Fish and Amphibia
  - (B) Birds and Mammals
  - (C) Reptiles and Fish
  - (D) Amphibia and Reptiles
18. Placoid scales occur in :
- (A) Bony fishes
  - (B) Cartilaginous fishes
  - (C) Amphibians
  - (D) Reptiles
19. Electric organ is present in :
- (A) Torpedo
  - (B) Rohu
  - (C) Catla
  - (D) Labeo
20. Jawless vertebrates belong to :
- (A) Pisces
  - (B) Agnatha
  - (C) Reptilia
  - (D) Mammalia
21. Notochord persists throughout life in :
- (A) Frog
  - (B) Fish
  - (C) Amphioxus
  - (D) Snake
22. Example of Urochordata is :
- (A) Balanoglossus
  - (B) Herdmania
  - (C) Amphioxus
  - (D) Petromyzon
23. The movement of fish from sea to freshwater for breeding is called :
- (A) Anadromous migration
  - (B) Catadromous migration
  - (C) Amphidromous migration
  - (D) Potamodromous migration
24. The fish known for brood pouch incubation is :
- (A) Seahorse
  - (B) Shark
  - (C) Tuna
  - (D) Lamprey

25. In seahorse parental care is provided mainly by :
- (A) Female
  - (B) Male
  - (C) Both (A) and (B)
  - (D) None of the above
26. Crocodiles possess :
- (A) Four-chambered heart
  - (B) Three-chambered heart
  - (C) Two-chambered heart
  - (D) Single chamber
27. The first vertebrates to adapt to terrestrial life were :
- (A) Reptiles
  - (B) Amphibians
  - (C) Mammals
  - (D) Birds
28. The fossil linking fishes and tetrapods are :
- (A) Archaeopteryx
  - (B) Tiktaalik
  - (C) Hylonomus
  - (D) Seymouria
29. The Devonian period is commonly called :
- (A) Age of reptiles
  - (B) Age of fishes
  - (C) Age of amphibians
  - (D) Age of mammals
30. Venomous snakes possess :
- (A) Poison glands
  - (B) Hollow fangs
  - (C) Venom injection mechanism
  - (D) All of the above
31. First reptiles appeared in :
- (A) Devonian
  - (B) Carboniferous
  - (C) Jurassic
  - (D) Cretaceous
32. Lizards and snakes possess :
- (A) Anapsid skull
  - (B) Diapsid skull
  - (C) Synapsid skull
  - (D) Amphikinetetic skull

33. Adaptive radiation means :
- (A) Evolution of diverse forms from common ancestor
  - (B) Loss of characters
  - (C) Mutation
  - (D) Extinction
34. An example of Urodela is :
- (A) Salamander
  - (B) Frog
  - (C) Caecilian
  - (D) Toad
35. In frogs, respiration occurs through :
- (A) Lungs only
  - (B) Skin only
  - (C) Buccopharyngeal cavity
  - (D) All of the above
36. Neoteny in amphibians refers to :
- (A) Retention of larval characters in sexually mature individuals
  - (B) Complete metamorphosis
  - (C) Direct development
  - (D) Larval death before maturity
37. Retrogressive metamorphosis occurs in :
- (A) Amphioxus
  - (B) Ascidian larva
  - (C) Frog
  - (D) Fish
38. Wheel organ helps in :
- (A) Circulation
  - (B) Feeding
  - (C) Excretion
  - (D) Respiration
39. Oral hood is present in :
- (A) Balanoglossus
  - (B) Amphioxus
  - (C) Herdmania
  - (D) Petromyzon
40. Hagfish belongs to genus :
- (A) Myxine
  - (B) Petromyzon
  - (C) Balanoglossus
  - (D) Amphioxus
41. Cyclostomes belong to :
- (A) Primitive vertebrates
  - (B) Advanced vertebrates
  - (C) Amphibians
  - (D) Mammals
42. An example of bony fish is :
- (A) Rohu
  - (B) Catla
  - (C) Hilsa
  - (D) All of the above

43. Migration means :
- (A) Seasonal movement
  - (B) Feeding
  - (C) Respiration
  - (D) Digestion
44. An example of catadromous fish is :
- (A) Eel
  - (B) Salmon
  - (C) Rohu
  - (D) Hilsa
45. Nest building fish is :
- (A) Stickleback
  - (B) Shark
  - (C) Whale
  - (D) Ray
46. Dipnoi are evolutionary link between :
- (A) Fish and amphibians
  - (B) Fish and reptiles
  - (C) Reptiles and birds
  - (D) Birds and mammals
47. Protochordates include :
- (A) Hemichordata
  - (B) Urochordata
  - (C) Cephalochordata
  - (D) All of the above
48. The defining feature of chordates is :
- (A) Jointed appendages
  - (B) Notochord
  - (C) Exoskeleton
  - (D) Segmentation
49. The dorsal hollow nerve cord is found in :
- (A) Arthropods
  - (B) Chordates
  - (C) Molluscs
  - (D) Echinoderms
50. Amphioxus belongs to :
- (A) Cephalochordata
  - (B) Urochordata
  - (C) Vertebrata
  - (D) Hemichordata

51. The presence of scales on bird legs suggests relationship with :
- (A) Reptiles
  - (B) Mammals
  - (C) Amphibians
  - (D) Fish
52. Birds are considered glorified reptiles because of their :
- (A) Feathers
  - (B) Wings
  - (C) Common ancestry with reptiles
  - (D) Warm-blooded
53. Frogs are considered cold-blooded animals because :
- (A) Their body temperature varies with environment
  - (B) Their body temperature is constant
  - (C) They have no blood
  - (D) They have warm blood
54. Frog is called an amphibious animal because it lives :
- (A) Only in water
  - (B) Only on land
  - (C) Both on land and in water
  - (D) Only in air
55. Flying frog belongs to genus :
- (A) Rhacophorus
  - (B) Rana
  - (C) Bufo
  - (D) Hyla
56. Placenta is mainly found in :
- (A) Eutherian mammals
  - (B) Birds
  - (C) Reptiles
  - (D) Amphibians
57. Marsupials carry their young in :
- (A) Pouch
  - (B) Nest
  - (C) Shell
  - (D) Egg
58. Viviparous animals are those which :
- (A) Lay eggs
  - (B) Give birth to young ones
  - (C) Reproduce by budding
  - (D) Reproduce by fragmentation
59. Cycloid scales occur in :
- (A) Shark
  - (B) Rohu
  - (C) Ray
  - (D) Lamprey

60. Fish migration mainly occurs for :
- (A) Digestion
  - (B) Breeding
  - (C) Respiration
  - (D) Excretion
61. Anadromous fishes migrate from :
- (A) Sea to freshwater
  - (B) Freshwater to sea
  - (C) Sea to sea
  - (D) River to lake
62. Australian lungfish is :
- (A) Neoceratodus
  - (B) Protopterus
  - (C) Lepidosiren
  - (D) Latimeria
63. The larva of Herdmania is :
- (A) Tadpole larva
  - (B) Tornaria larva
  - (C) Nauplius larva
  - (D) Trochophore larva
64. Apoda are also called :
- (A) Caecilians
  - (B) Salamanders
  - (C) Frogs
  - (D) Lizards
65. The palate in birds is mainly used for :
- (A) Classification of birds
  - (B) Respiration
  - (C) Digestion
  - (D) Circulation
66. Which bird lacks keel on sternum?
- (A) Eagle
  - (B) Pigeon
  - (C) Ostrich
  - (D) Sparrow
67. Microorganisms in rumen help in :
- (A) Cellulose digestion
  - (B) Protein synthesis
  - (C) Fermentation
  - (D) All of the above
68. The four chambers of ruminant stomach are :
- (A) Rumen, Reticulum, Omasum, Abomasum
  - (B) Rumen, Crop, Gizzard, Intestine
  - (C) Crop, Proventriculus, Gizzard, Intestine
  - (D) Rumen, Liver, Omasum, Intestine

69. Ruminants possess :
- (A) Four-chambered stomach
  - (B) Two-chambered stomach
  - (C) Three-chambered stomach
  - (D) Single stomach
70. Largest living animal is :
- (A) Whale shark
  - (B) Elephant
  - (C) Shark
  - (D) Blue whale
71. Forelimbs of whales are modified into :
- (A) Flippers
  - (B) Wings
  - (C) Fins
  - (D) Claws
72. Whale belongs to order :
- (A) Primates
  - (B) Carnivora
  - (C) Rodentia
  - (D) Cetacea
73. The connecting link between reptiles and mammals is :
- (A) Archaeopteryx
  - (B) Cynognathus
  - (C) Ichthyostega
  - (D) Tiktaalik
74. Mammals first appeared during :
- (A) Triassic period
  - (B) Jurassic period
  - (C) Devonian period
  - (D) Carboniferous period
75. Metatheria are commonly called :
- (A) Placentals
  - (B) Monotremes
  - (C) Marsupials
  - (D) Reptiles
76. An example of Prototheria is :
- (A) Platypus
  - (B) Kangaroo
  - (C) Human
  - (D) Elephant

77. Weberian ossicles are characteristic of fishes belonging to :
- (A) Cyclostomes
  - (B) Chondrichthyes
  - (C) Dipnoi
  - (D) Ostariophysi
78. Sand boa belongs to genus :
- (A) Bungarus
  - (B) Naja
  - (C) Vipera
  - (D) Eryx
79. The venom of cobra is mainly :
- (A) Cytotoxic
  - (B) Hemotoxic
  - (C) Neurotoxic
  - (D) Cardiotoxic
80. An example of non-poisonous snake is :
- (A) Krait
  - (B) Cobra
  - (C) Python
  - (D) Viper
81. Non-poisonous snakes lack :
- (A) Poison glands
  - (B) Teeth
  - (C) Tongue
  - (D) Eyes
82. Heat sensing pit occurs in :
- (A) Python
  - (B) Cobra
  - (C) Pit vipers
  - (D) Rat snake
83. Cobra and krait venom mainly affects :
- (A) Nervous system
  - (B) Blood
  - (C) Skin
  - (D) Liver
84. The sternum of flying birds has :
- (A) Keel
  - (B) Spine
  - (C) Plate
  - (D) Ridge

85. Hollow bones in birds are called :
- (A) Cartilage bones
  - (B) Spongy bones
  - (C) Compact bones
  - (D) Pneumatic bones
86. Birds use Earth's magnetic field through :
- (A) Magnetoreception
  - (B) Thermoregulation
  - (C) Vision
  - (D) Hearing
87. Migration between breeding and wintering grounds is called :
- (A) Seasonal migration
  - (B) Local migration
  - (C) Permanent migration
  - (D) Random migration
88. Flightless birds have :
- (A) Reduced wings
  - (B) Large legs
  - (C) Strong muscles for running
  - (D) All of the above
89. Rhynchocephalia shows :
- (A) Amphibian characters
  - (B) Mammalian characters
  - (C) Bird characters
  - (D) Primitive reptilian characters
90. Reptiles are classified under :
- (A) Amniotes
  - (B) Anamniotes
  - (C) Protochordates
  - (D) Cyclostomes
91. Rhynchocephalia possesses :
- (A) Diapsid skull
  - (B) Anapsid skull
  - (C) Synapsid skull
  - (D) Amphicoelous skull
92. The reptilian skull without temporal opening is called :
- (A) Anapsid
  - (B) Diapsid
  - (C) Synapsid
  - (D) Parapsid

93. Ampullae of Lorenzini are present in :
- (A) Bony fishes
  - (B) Cartilaginous fishes
  - (C) Amphibians
  - (D) Reptiles
94. An example of Apoda is :
- (A) Rana
  - (B) Ichthyophis
  - (C) Salamandra
  - (D) Bufo
95. Regeneration power is best developed in :
- (A) Snake
  - (B) Frogs
  - (C) Lizards
  - (D) Salamanders
96. In axolotl metamorphosis can be artificially induced by
- (A) Thyroxine injection
  - (B) Insulin injection
  - (C) Adrenaline injection
  - (D) Cortisol injection
97. Neoteny is best defined as :
- (A) Early sexual maturity
  - (B) Retention of larval characters in sexually mature individuals
  - (C) Delay in fertilization
  - (D) Absence of metamorphosis
98. Neoteny is a type of :
- (A) Adaptation
  - (B) Mutation
  - (C) Heterochrony
  - (D) Speciation
99. Retrogressive metamorphosis is characteristic of :
- (A) Tunicates
  - (B) Amphioxus
  - (C) Vertebrates
  - (D) Cyclostomes
100. Chordates have :
- (A) Paired appendages
  - (B) Jointed appendages
  - (C) Wings
  - (D) Shell

***(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.

- Each question carries equal marks. Marks will be awarded according to the number of correct answers you have.
- 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.
- Before writing anything on the OMR Answer Sheet, all the instructions given in it should be read carefully.
- 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.
- There will be no negative marking.
- Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.
- To bring and use of log-book, calculator, pager and cellular phone in examination hall is prohibited.
- 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।

- प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
- 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।
- ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।
- 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।
- निगेटिव मार्किंग नहीं है।
- कोई भी रफ कार्य, प्रश्न-पुस्तिका के अन्त में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।
- परीक्षा-कक्ष में लॉग-बुक, कैलकुलेटर, पेजर तथा सेल्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।
- 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।