

**PARUL UNIVERSITY**  
**PARUL INSTITUTE OF APPLIED SCIENCES**  
**MID SEMESTER INTERNAL EXAMINATION, MARCH 2020**  
**B.Sc. Geology, Semester IV**

**Paper Name: Paleontology**

**Paper Code: 1111251**

**Date: 05/03/2020**

**Time: 12.00-1.30 pm**

**Maximum Marks: 40**

**Instructions:**

1. All questions are compulsory and options are given in first & second question only.
2. Numbers to the right of question indicate the marks of respective question.

**Q. 1** Attempt **any one** question of the following. **(08)**

- (i) Describe in detail the different modes of preservation with appropriate examples.
- (ii) Discuss the shell morphology of ammonoidea with appropriate diagram.

**Q. 2** Attempt **any three** questions of the following. **(12)**

- (i) What does the term “prosiphonate” and “retrosiphonate” mean in Ammonites?
- (ii) Classify brachiopods based on the characteristic of hinge line and length of shell.
- (iii) List down the main factors that favour fossilization
- (iv) Define convolute and globular coiling in gastropods with an appropriate example.
- (v) Classify the subclass Pteriomorpha and Palaeoheterodonta to order levels.

**Q. 3** Do as directed. Attempt **all five** questions. **(05)**

- (i) What do you mean by dextral coiling in gastropods?
- (ii) Name the orders within the class Articulata of Brachiopods.
- (iii) Define Heterodont dentition in bivalves.
- (iv) Define trace fossils.
- (v) When did the Goniatic suture firstly appear in Ammonoidea?

**Q. 4** Write correct option in your answer sheet for all 15 multiple choice questions **(15)**

MCQ 1 \_\_\_\_\_ is an excavation produced by an organism in a hardground.

- |            |            |
|------------|------------|
| (A) Burrow | (B) Track  |
| (C) Trail  | (D) Boring |

MCQ 2 Which among the following is NOT a Cephalopod?

- |              |                |
|--------------|----------------|
| (A) Nautilus | (B) Trochus    |
| (C) Ammonite | (D) Belemnites |

MCQ 3 \_\_\_\_\_ is the additional growth formation of circular opening inwardly with detlidium.

- |               |                |
|---------------|----------------|
| (A) Siphuncle | (B) Delthyrium |
| (C) Foramen   | (D) Aperture   |

MCQ 4 The dental system having straight hinge line with numerous small, homodont teeth radiating from the centre of the valve is \_\_\_\_\_ dentition.

- |              |                |
|--------------|----------------|
| (A) Taxodont | (B) Homodont   |
| (C) Dysodont | (D) Heterodont |

MCQ 5 The shell having large and convex last whorl covering nearly all the others and the aperture is termed as \_\_\_\_\_.

- |               |                |
|---------------|----------------|
| (A) Convolute | (B) Trochiform |
| (C) Turrated  | (D) Globular   |

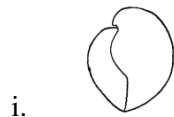
MCQ 6 Mode of preservation in which the crystals that were secreted to form the shell may be changed in form and size without changing in composition is termed as \_\_\_\_\_.

- |                       |                       |
|-----------------------|-----------------------|
| (A) Recrystallization | (B) Unaltered remains |
| (C) Permineralisation | (D) Pyritization      |

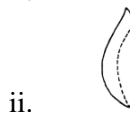
MCQ 7 Match the shapes of the valves (Part- A) with the correct terminology (Part-B)

Part-A

Part-B



a. Plano-convex



b. Concavo-convex



c. Biconvex



d. Resupinate

(A) i-a, ii-d, iii-c, iv-b

(B) i-b, ii-d, iii-a, iv-c

(C) i-b, ii-c, iii-a, iv-d

(D) i-c, ii-d, iii-a, iv-b

MCQ 8 The simplest straight form of the cephalopod shell closed at the apical end and open at the other end is described as an \_\_\_\_\_

(A) Gyrocone

(B) Orthocone

(C) Torticone

(D) Cryptocone

MCQ 9 The time range of the subclass Pulmonata is from \_\_\_\_\_.

(A) Mesozoic to Recent

(B) Carboniferous to Recent

(C) Cambrian to Ordovician

(D) Cambrian to Recent

MCQ 10 Class \_\_\_\_\_ is also known as Pelecypoda

(A) Gastropoda

(B) Inarticulate Brachiopods

(C) Cephalopoda

(D) Bivalvia

MCQ 11 Ice age mammoths with their undigested last meal remaining in the stomach, found frozen in N. America and Siberia is an example of \_\_\_\_\_ mode of preservation.

(A) Unaltered

(B) Pertification

(C) Carbonisation

(D) Altered

MCQ 12 The major radiation of ceratitids was during \_\_\_\_\_ period.

(A) Jurassic

(B) Triassic

(C) Permian

(D) Cretaceous

MCQ 13 In Brachiopods, the lopophore occur in pair with cilia and are used for \_\_\_\_\_.

(A) Boring

(B) Burrowing

(C) Gathering the food

(D) Attachment to substrate

MCQ 14 Calcium carbonate forming a rigid inner growth of crystals in organic matrix may be mostly in the form of \_\_\_\_\_ in the molluscs.

(A) Dolomite

(B) Calcite

(C) Aragonite

(D) Silica

MCQ 15 Bivalves with both adductor impression of equal size is termed as \_\_\_\_\_

(A) Monomyarian

(B) Anisomyarian

(C) Isomyarian

(D) Dimyarian

-- End of Paper--