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(6th Semester)

GEOLOGY

NINTH PAPER

(Palaeontology and Stratigraphy—II)

Full Marks : 55

Time : 2½ hours

(PART : B—DESCRIPTIVE)

(Marks : 35)

*The figures in the margin indicate full marks
for the questions*

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. (a) Write a note on the application of palaeontology with special reference to palaeoecology. 4
- (b) Describe the extraction and preparation processes of microfossils when preserved in unconsolidated sediments. 3

2. (a) Explain Gondwana land reconstruction with appropriate diagrams. 3+2=5
- (b) Differentiate between Darwinism and Lamarckism theory of organic evolution. 2

UNIT—II

3. Write notes on the following : 3½×2=7
- (a) Modes of preservation of plant fossils
- (b) Gondwana flora
4. Write short notes on the following : 3½×2=7
- (a) General characteristics of vertebrates
- (b) Siwalik vertebrate fauna

UNIT—III

5. Give accounts on the morphological characteristics, geological distribution and palaeoecology of Ostracoda. 7
6. Write a note on the application of microfossils in petroleum exploration. 7

UNIT—IV

7. Explain two types of classification of Gondwana Supergroup. Add a note on Talchir and Damuda Groups of Lower Gondwana Formation. 3½+3½=7

(3)

8. Write accounts on any *two* of the following :

$3\frac{1}{2} \times 2 = 7$

- (a) Uttatur Formation
- (b) Patcham Formation
- (c) Umia Formation
- (d) Semri Group

UNIT—V

9. Describe the lithostratigraphic succession of Deccan Trap in terms of field description, various subprovinces, structures, fossils, age and economic deposits. 7
10. Describe in detail the geological succession of Assam. 7

Subject Code : GEOL/VI/09

Booklet No. **A**

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Date Stamp

To be filled in by the Candidate

DEGREE 6th Semester
(Arts / Science / Commerce /
.....) Exam., **2016**
Subject
Paper

.....

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To be filled in by the Candidate

DEGREE 6th Semester
(Arts / Science / Commerce /
.....) Exam., **2016**

Roll No.

Regn. No.

Subject

Paper

Descriptive Type

Booklet No. B

INSTRUCTIONS TO CANDIDATES

1. The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.
2. This paper should be ANSWERED FIRST and submitted within 45 minutes of the commencement of the Examination.
3. While answering the questions of this booklet, any cutting, erasing, overwriting or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.

Signature of
Scrutiniser(s)

Signature of
Examiner(s)

Signature of
Invigilator(s)

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(6th Semester)

GEOLOGY

NINTH PAPER

(Palaeontology and Stratigraphy—II)

(PART : A—OBJECTIVE)

(Marks : 20)

The figures in the margin indicate full marks for the questions

Answer **all** questions

SECTION—A

(Marks : 5)

1. Put a Tick (✓) mark against the correct answer in the brackets provided : 1×5=5

(a) A fossil generally restricted to one type of sediment, useful for reconstructing paleo-environment is

(i) facies fossil ()

(ii) guide fossil ()

(iii) index fossil ()

(iv) zone fossil ()

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(2)

(b) Which of the following is correct with reference to vertebrate evolution?

(i) Fish > Amphibian > Mammal > Bird / Reptile ()

(ii) Fish > Amphibian > Reptile > Bird / Mammal ()

(iii) Fish > Mammal > Reptile > Amphibian / Bird ()

(iv) Fish > Amphibian > Mammal > Reptile / Bird ()

(c) Which of the following microfossils dominates below carbonate compensation depth (CCD)?

(i) Siliceous microfossil ()

(ii) Calcareous microfossil ()

(iii) Organic microfossil ()

(iv) Phosphatic microfossil ()

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(3)

(d) The rocks belonging to upper Dharwar are of

(i) igneous origin ()

(ii) metamorphic origin ()

(iii) sedimentary origin ()

(iv) volcanic origin ()

(e) Deccan volcanic province has been formed from

(i) Hawaiian-Emperor chain ()

(ii) Kerguelen plume ()

(iii) African superplume ()

(iv) Reunion hot spot ()

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(4)

SECTION—B

(Marks : 15)

2. Write on the following :

3×5=15

(a) Ichnofossils

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(5)

(b) Broad classification of plant fossils

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(6)

(c) Radiolaria

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(7)

(d) Trichinopoly Formation

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(8)

(e) Fossil assemblages of Siwalik Supergroup

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