**B. Sc.:[FINAL YEAR]**

**End SemesterExamination (VI Semester: 2020-2021)**

**SEMESTER: [VI] COURSE:[B. Sc.]**

**Subject Name with Subject Code:[FUEL GEOLOGY, DSE-03]**

***Date of Examination:23-09-2021***

***Time: 2 Hours. Total Marks: 60***

***Notes:***

1. Attempt **ALL** parts from **SECTION A** (Total 20 Marks). Each part is of 2 Marks.

2. Attempt any **THREE** parts from **SECTION B** (Total 15 Marks). Each part is of 5 Marks.

3. Attempt any **TWO** parts from **SECTION C** (Total of 25 Marks). Each part is of 12.5 Marks.

4. Attempt all Sections.

5. Marks are written against each Section.

6. Missing data if any may be suitably assumed and mentioned.

**MODEL QUESTIONS**

**SECTION-A [20 Marks]**

Attempt **ALL** parts. All parts carry **TWO** marks. **[2\*10 = 20]**

**Multiple Choice Questions**

**1.**

**2.**

**3.**

**4.**

**5.**

**6.**

**7.**

**8.**

**9.**

**10.**

**SECTION-B [15 Marks]**

Attempt any **THREE** parts. Each part carries **FIVE** marks. **[5\*3=15]**

1. Write a note on Classification of coal on the basis of its type.

2. Give an account on Origin of coal.

3. Write a short note on proximate analysis of coal

4. What is hydrocarbon trap? Write down its type and condition.

2. What are important geological factors which is important for the formation of reservoir?

5. Explain organic origin of petroleum.

6. Write a short notes on Coal gasification.

**7.** Give an account on origin of Coal.

8. Explain the classification of coal on the basis of types.

9. Give an account on proximate analysis of coal.

9. Give an account on ultimate analysis of coal.

10. Describe lithotype in brief.

11. Explain HC migration mechanism.

12. Explain cap rock, its type and importance.

13. Explain HC trap.

14. What is the classification of reservoir rock?

15. Explain formation of HC.

16. What is the importance of source rock?

17. How metal carbide theory will help to understand the origin of petroleum?

18. What do you understand by API gravity? How this will help to classify the crude oil?

19. Describe what the role of boiling point in hydrocarbon is.

20. What do you understand by Aromatic hydrocarbon series?

21. What are the different chemical elements present in petroleum?

22. What is the role of viscosity in petroleum?

**SECTION-C [25 Marks]**

Attempt **TWO** parts. Each part carries **TWELVE AND HALF** marks. **[12.5\*2 =25]**

1. Describe Ultimate Analysis of Coal with the help of reactions and neat sketches.

2. Explain broadly Coal Bed Methane and write the major coalfields of India in the form of table with special reference to Jharkhand.

3. Write down the distribution of hydrocarbon reservoir of India and its geological condition of formation.

4. Write down the relationship between migration and hydrocarbon accumulation.

5. Explain broadly Coal Bed Methane and write the major coalfield of India with special reference to Jharkhand.

6. Describe Ultimate Analysis of Coal with the help of reactions and neat sketches.

7. Broadly explain macerals in detail.

8. Describe macroscopic constituent of coal of both Lignite and Bituminous coal.

9. Explain geological condition for the formation and accumulation of HC.

10. Classify HC trap-structural, stratigraphic and combination.

11. What are good HC reserves in India, explain geological, stratigraphic condition which helped it to become good reserves.

12. Define hydrocarbon. Also explain hydrocarbon series.

13. Explain origin of petroleum.

14. Write down about the physical properties of hydrocarbon.

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